

# On a potential counter-example to Merchant's Sluicing-COMP generalization\*

**Fraň Marušič, Petra Mišmaš, Vesna Plesničar, Tina Razboršek, Tina Šuligoj**  
*University of Nova Gorica*

## **Abstract.**

In Slovenian, certain discourse particles can survive sluicing. This suggests Merchant's (2001) "Sluicing-COMP generalization" does not hold in Slovenian. These discourse particles are neither operators nor are they DP internal, so they represent a counterexample to the Sluicing-COMP generalization. Given the parallel between discourse particles and non-*wh*-material in the Slovenian left periphery, we suggest that sluicing in Slovenian does not delete the entire left periphery.

**Keywords.** Sluicing, Sluicing-COMP generalization, Slovenian, Discourse particles

## **1. Introduction**

In this paper we discuss Slovenian sluicing data, which on first sight appear to violate generalization in (1) according to which in sluicing the C is always null.

- (1) ***"Sluicing-COMP generalization"***  
In sluicing, no non-operator material may appear in COMP."(Merchant 2001: 62, (71))

Merchant (2001: 62) defines operator as 'syntactic *wh*-XP' and 'material' stands for any pronounced element. In addition, we take sluicing to be an ellipsis phenomenon in which a *wh*-remnant 'survives' the ellipsis of the sentential portion of a constituent question (Merchant 2006). Assuming this, the generalization can be paraphrased as: 'In sluicing only *wh*-phrases can appear in COMP.' However there are many examples of sluicing in Slovenian which involve a discourse particle that appears after the *wh*-word in sluicing examples. This is shown in (2).

---

\* We are grateful to audience at SinFonIJA 7 and to the anonymous reviewer for their comments. The first author acknowledges the financial support from the Slovenian Research Agency (program No. P6-0382).

- 
- (2) a. Peter je videl nekoga. Koga **pa**?  
 Peter AUX saw someone. Who PTCL  
 ‘Peter saw someone. Who <did he see>?’
- b. Peter je videl nekoga. Koga **že**?  
 Peter AUX saw someone. Who PTCL  
 ‘Peter saw someone. Please remind me, who <did he see>?’
- c. Peter je videl Janeza. Koga **še**?  
 Peter AUX saw Janez. Who PTCL  
 ‘Peter saw someone. Who else <did he see>?’
- d. Peter je videl nekoga. Koga **to**?  
 Peter AUX saw someone. Who PTCL  
 ‘Peter saw someone. Who <did he see>?’
- e. Slišal sem, da je Peter videl nekoga. Koga **da**?  
 heard AUX that aux Peter saw someone. Who that  
 ‘I heard Peter saw someone. Who <did he see>?’
- f. Peter je videl nekoga. Koga **spet**?  
 Peter AUX saw someone. Who again  
 ‘Peter saw someone. Who (are you saying again) <did he see>?’
- g. Peter je videl nekoga. Koga **pa to**?  
 Peter AUX saw someone. Who PTCL PTCL  
 ‘Peter saw someone. Who <did he see>?’
- h. Peter je videl Janeza pa še nekoga. Koga **pa še**?  
 Peter AUX saw Janez and also someone. Who PTCL PTCL  
 ‘Peter saw Janez and someone else. Who else <did he see>?’

In Slovenian *wh*-elements are morphologically complex and contain the *wh*-morpheme *k-/č-*, for example: *k-do* ‘who’, *k-aj* ‘what’, *č-igav* ‘whose’, etc.<sup>1</sup> Based on this we can safely conclude that the discourse particles in (2) are not operators as

---

<sup>1</sup> A reviewer points out that our claim that *k-/č-* is a morpheme is not entirely uncontroversial given that one really cannot find literature discussing this for Slovenian. However one can find analyses which treat *wh*-words as complex in English (e.g. di Sciullo 2005) and Germanic more generally (Klinge 2008) but even in those cases this is not so clearly the mainstream view. Given the “morphological make-up” of Slovenian pronominal elements, we do not find this claim controversial at all. All *wh*-elements contain either a *k-* (like *kako* ‘how’, *kdaj* ‘when’, *kam* ‘where’ ...) or a *č-*, which is a palatalized *k-* (like *čemu* ‘why’, *s čim* ‘with what’ etc.). Further, changing the *k-/č-* with a *t-* we get demonstratives of the same meaning in nearly all cases: *kako* ‘in what way’ > *tako* ‘this way’, *kdaj* ‘when’ > *tedaj* ‘then’, *kam* ‘where to’ > *tam* ‘there’, *s čim* ‘with what’ > *s tem* ‘with this one’ etc. This is similar to English, where both *wh-* and *th-* are also identified as two morphemes occurring in the same environments and are for that reason often discussed in parallel: *what – that*; *where – there*; *when – then* etc. (cf. di Sciullo 2005, Bernstein 2008, Klinge 2008, Leu 2008).

they do not include the *wh*-morpheme. Furthermore, we will also argue that these particles are not a part of *wh*-phrases (i.e. they do not form a constituent with the *wh*-material). Evidence for this will be discussed in what follows.

Similar phenomena have been observed in the past. For example, Ross (1969) also observes sluicing with inverted prepositions in English – *swiping*, (3). Van Craenenbroeck (2005) gives instances of sluices in which a demonstrative appears to the right of the *wh*-phrase in Dutch – *spading*, (4). Van Craenenbroeck and Lipták (2006) give examples with ellipsis of relative clauses that is triggered by focus movement (in (5), focused subject is *Zoltán*).

- (3) Ed will give a talk, but I don't know what about.
- (4) Jef eid iemand gezien, mo ik wee nie wou da.  
 Jeff has someone seen but I know not who that.DEM  
 'Jeff saw someone, but I don't know who.' (van Craenenbroeck 2005: (6))
- (5) Kornél AZT A LÁNYT hívta meg, akit ZOLTÁN [ellipsis].  
 Kornél that.ACC the girl.ACC invited PV who.ACC Zoltán  
 'The girl who Kornél invited was the one who Zoltán did.'  
 (Van Craenenbroeck and Lipták 2006: (2))

In this paper we will focus on instances of sluicing in Slovenian in which a non-*wh*-element appears to the right of the *wh*-phrase. Due to space limitations we will consider only a few of the possible discourse particles, that is *pa*, *to* and *že*. To show that Slovenian cases with sluicing poses a problem for Merchant's (2001) "Sluicing-COMP generalization" we will first discuss the nature of these three elements in section 2. In section 3 we show that these elements do not form a constituent with the *wh*-phrase and consequently undergo *wh*-fronting as a separate constituent. In section 4 we present our understanding of the clausal left periphery, where we propose these particles are located. Section 5 is the conclusion.

## 2 The nature of elements *pa*, *to* and *že*

Generally, elements *pa*, *to* and *že* (but also *da*, *še* and other elements in (2) above) display some properties typical of discourse particles, for example they are optional; to a certain extent they can appear simultaneously in the same clause; furthermore, they normally do not bare stress (cf. Bayer & Obenauer 2011). These elements also do not necessarily behave uniformly, as some (but not all) are immobile in some uses (e.g. *še* 'else/more' vs. *pa* ptcl.foc).

For the purpose of this article, we will discuss only *pa*, *to* and *že* in some detail – presenting the range of their use and meanings.<sup>2</sup>

## 2.1 Pa

*Pa* is a very common element in Slovenian, especially in the colloquial language. It has many uses and meanings, which usually depend on its position within the clause.

Firstly, the particle *pa* in regular coordination functions much like the standard Slovenian conjunction *in* ‘and’, as in (6).

- (6) Peter *pa* Micka  
Peter and Micka

It can also be a subordination complementizer like the standard Slovenian *ampak* ‘but’, except that *pa* in this case can appear in second position (cf. Marušič, Mišmaš, and Žaucer 2011), as can be seen from the examples in (7).

- (7) a. Peter je odšel, **ampak** ne vem zakaj je odšel.  
Peter AUX leave but not know why AUX leave  
‘Peter left but I don’t know why he left.’  
b. \*Peter je odšel, ne vem **ampak** zakaj je odšel.  
c. Peter je odšel, ne vem **pa** zakaj je odšel.  
Peter AUX leave not know but why AUX leave  
‘Peter left but I don’t know why he left.’  
d. Peter je odšel, **pa** ne vem zakaj je odšel.

Furthermore, *pa* is also a discourse particle. It can function as a topic marker or as a contrastive focus marker. *Pa* used as a topic marker is given in (8). In the context where friends are talking about various people and someone asks about a certain person called Janez, a natural reply could be:

- (8) Janeza **pa** danes še nisem videl.  
Janez PTCL today yet AUX.NEG see  
‘As for Janez, I haven’t seen him today yet.’

*Pa* can also be a contrastive focus marker, as in (9).

- (9) Jaz bom gledal fuzbal, ti **pa** košarko.  
I AUX watch soccer you PTCL basketball  
‘While I will watch soccer, you’ll be watching basketball.’

<sup>2</sup> The three particles we are discussing here display a wide range of meanings and uses in Slovenian. Due to space limitations we only focus on the uses that are important for the interpretation of *wh*-questions and sluices.

In this use, *pa* can sit in different positions, sometimes without any semantic consequences (e.g. as in (10)). But in general, *pa* in different positions gives different semantic interpretations, as shown in (11).

- (10) a. Kdo **pa** je bil to?  
 who PTCL AUX was that  
 'Who was that?'  
 b. Kdo je **pa** bil to?  
 who AUX PTCL was that  
 'Who was that?'
- (11) a. Kdo **pa** LJUBI Vido?<sup>3</sup>  
 who PTCL loves Vida  
 '(We know who likes Vida, but we want to know) who loves Vida?'  
 b. Kdo ljubi **pa** VIDO?<sup>4</sup>  
 who loves PTCL Vida  
 '(We know about the others, but we want to know) who loves Vida?'

Marušič, Mišmaš, and Žaucer (2011) looked at the second position conjunction *pa*, as in (12), and argue it is the head of a FocP, a complement of ConjP.

- (12) Ta avto je hiter kot formula, grd **pa** kot smrt.  
 this car AUX fast as formula ugly PTCL as death  
 'This car is as fast as a formula, but as ugly as death.'

This analysis could be extended to other occurrences of focus marking *pa*, which would mean that *pa* is the head of a FocP inside the left periphery of the clause.

And finally, when *pa* is used in sluicing, the presupposition is that there is a set of known possible alternatives the *wh*-word is asking about ((13b) – goal, (13c) – time, etc.). In this respect, a response for the context in (13a) can be (13b), where the *wh*-word is asking about goal.

<sup>3</sup> Small caps are meant to represent heavy stress. So given that (11a) and (11b) differ also in the location of the focus stress, one can argue the difference in interpretation is actually a consequence of focus rather than *pa*. In principle this is true, but as we said *pa* is a marker of focus, so it naturally goes together with the focus stress.

<sup>4</sup> Given that (i) is also a possible sentence when the focus stress is on Vida and that (i) receives the same interpretation as (11b), it seems as if *pa* does not really mark focused constituents, which are always marked with focus intonation (nuclear stress). But given that there are many varieties of 'pa' with many different functions, it is not really obvious if (i) and (11) are comparable with respect to what 'pa' brings into the clause.

(i) Kdo *pa* ljubi VIDO?  
 who PTCL loves Vida  
 '(We know about the others, but we want to know) who loves Vida?'

- (13) a. Ana je nekam odpotovala.  
 Ana AUX somewhere traveled  
 ‘Ana has traveled somewhere.’
- b. Kam **pa** <je odpotovala>?<sup>5</sup>  
 where PTCL <AUX departed>  
 ‘Where?’
- c. Kdaj **pa** <je odpotovala>?  
 when PTCL <AUX departed>  
 ‘When?’
- d. S kom **pa** <je odpotovala>?  
 with whom PTCL <AUX departed>  
 ‘With whom?’

## 2.2 Že

*Že* too has many different uses/meanings. Among others it has the temporal meaning ‘already’, as shown in (14). Using *že* as temporal particle is very common, but irrelevant at this point.

- (14) Miha je **že** opral obleke.  
 Miha AUX PTCL wash clothes  
 ‘Miha has already washed the clothes.’

The other use of *že* is that of a discourse particle expressing the presupposition that the speaker knows the answer to the question but does not remember it, so it implies a reprise question, as shown in (15). In this use it is like English ‘again’ in “(So remind me,) who again was it that invited you to come sit in our tent?”

- (15) a. Kdo **že** je napisal Vojno in mir?  
 who *že* AUX write War and peace  
 ‘(I need to remember) who wrote War and peace?’  
 # ‘Who already wrote War and peace?’
- b. Kdo je **že** napisal Vojno in mir?  
 ‘(I need to remember) who wrote War and peace?’  
 ‘Who already wrote War and peace?’

<sup>5</sup> In this and all other similar Slovenian examples where we give the sluiced part of the clause in pointy brackets (<... >), we do not claim that the non-slucied version of the sentence would necessarily have the same word order. We are simply avoiding discussion of this issue at this point and give such representation for the sake of simplicity. In some cases, it seems, a different order of the discourse particle and the auxiliary clitic would be more appropriate than the one given with pointy brackets.

As shown in (15b), the reprise question interpretation (in addition to the temporal reading of *že*) is available also when *že* and the *wh*-word are not adjacent. The availability of this reading in (15b) implies that *kaj* 'what' and *že* do not necessarily form a constituent in (15a), as clitics do not split syntactic constituents in Slovenian, so (15b) needs to have a source where *že* and the *wh*-word do not form a constituent.

Finally, in sluicing *že* also expresses the presupposition that the speaker knows the answer to the question but does not remember it:

- (16) Vem, da sem nekje videl knjigo. Kje **že**?  
 know.1SG that AUX somewhere saw.1SG book where PTCL  
 'I know I have seen the book somewhere. Where (was it again)?'

Before turning to *to*, we can use examples with *že* in order to show that the elements under discussion here can appear in different positions in multiple *wh*-questions. It can directly follow the first *wh*-word, as in (17a), it can follow the auxiliary and precede the second *wh*-word, as in (17b), and it can also follow the second *wh*-word, as shown in example (17c). Different positions of *že* in (17) yield different available readings, but we leave this aside. In all three examples a version of the particle reading of *že* is available. In (17b–c) *že* also gets the temporal reading "already" which, as already mentioned, we are not interested in here.

- (17) a. Kdo **že** je koga povabil?  
 who PTCL AUX who invite  
 '(I want to remember) who invited whom.'  
 b. Kdo je **že** koga povabil?  
 c. Kdo je koga **že** povabil?

Just like *že*, *pa* and *to* can also appear in different positions in multiple *wh*-questions.

## 2.3 To

The particle *to* is homophonous with the demonstrative pronoun, as in (18), and with the demonstrative determiner for neuter singular, as in (19).

- (18) To je Peter.  
 this is Peter  
 (19) To mesto je veliko.  
 this.NEUT.SG town.NEUT.SG is.SG big.NEUT.SG

Beside its demonstrative use, *to* can also be used as a VP pronoun ('pro-verb') and in some dialects its meaning coincides with the meaning of the locative adverb 'here'. Here we are interested in neither of these uses. The main focus of this section is on the use of *to* as a discourse particle. As presented in (20), *to* can operate as a contrastive focus marker:

- (20) A: Ana in Peter sta bila v kinu.  
 Ana and Peter AUX were in cinema  
 ‘Ana and Peter were at the cinema.’
- B: Iva je **to** bila z njim v kinu,  
 Iva AUX PTCL was with him in cinema  
 ne Ana.  
 not Ana  
 ‘It was Iva who was with him at the cinema, not Ana.’

In non-interrogative contexts, as in (20) above, *to* expresses new, contrastive information, while in *wh*-questions, where *to* is most productively used, and in sluicing, as it will be presented below, the information which *wh*-words and *to* refer to is new, as in (21).

- (21) A: Menda cel dan sedi v kinu.  
 supposedly entire day sits in cinema  
 ‘Supposedly he sits in the cinema the entire day.’
- B: Kdo **to** cel dan sedi v kinu?  
 who PTCL entire day sits in cinema  
 ‘Who sits in the cinema the entire day?’

Examples with a similar meaning of *to* can also be found in Serbian, where *to* is used as *event pronominal to*<sup>6</sup> (Progovac 2005):

- (22) Da li **to** Tea pere zube? Serbian  
 COMP Q that Tea washes teeth  
 ‘Is that Tea brushing her teeth?’ (Progovac 2005: 54)

Similar to the use in regular questions, is its use in sluicing constructions, as in (23), where *to* is also a focus marker.

- (23) A: Ana je nekam odpotovala.  
 Ana AUX somewhere traveled  
 ‘Ana has traveled somewhere.’
- B1: Kam **to** <je odpotovala>?  
 where PTCL <AUX traveled >  
 ‘Where?’
- B2: Kdaj **to** <je odpotovala>?  
 when PTCL <AUX traveled >  
 ‘When?’

<sup>6</sup> As such it is argued to have three basic (pronominal) uses, deictic, anaphoric, and bound-variable use.



- B3: S kom **to** <je odpotovala>?  
 with whom PTCL <AUX traveled>  
 'With whom?'

Particle *to* also appears in Czech *wh*-questions and focus fronting constructions (cf. Šimik 2009). For Czech it is argued that particle *to* in sluicing is not a demonstrative pronoun *to* and that therefore these examples do not present doubling of the noun phrase. The same holds for Slovenian, as shown in (24) and (25), where *to* does not agree with the preceding noun phrase in case, (24), spatial reference, (25), temporal reference, (26), and manner reference.

- (24) a. Komu **to** si prodala sliko?  
 who.DAT this.NOM/ACC AUX sell painting  
 'Whom did you sell a painting to?'  
 b. \*Komu temu si prodala sliko?  
 which.DAT this.DAT AUX sell painting
- (25) Moral bi pospraviti knjige, a sem pozabil, kam *to*/\**tu*.  
 have AUX clear books but AUX forget where PTCL/here  
 'I should clear my books away, but I forgot where to.'
- (26) Pošta je odprta le eno uro, a ne vem, kdaj *to*/\**takrat*.  
 post AUX open only one hour but not know when PTCL/then  
 'The post office is only open for one hour, but I don't know when.'
- (27) Ko se je zgodila nesreča, so raziskali,  
 when SELF AUX happen accident AUX explore  
 kako *to*. / \**tako*  
 how PTCL this-way  
 'When the accident happened, they explored how (it happened).'

Now that we have shown that these particles are not *wh*-operators, but rather distinct discourse particles, we will look at what is their structural position in sluicing.

### 3. These particles are not DP-internal

Given that some of these elements seem to be superficially similar to DP internal elements, such as the English *else*, one could see them as forming a constituent together with the *wh*-phrase and thus occupying the Specifier position of a DP. If this was the case, Merchant's (2001) "Sluicing-COMP generalization" would still hold. But this does not seem to be a possible analysis of the elements such as *to*, *že*, *pa*, introduced in the previous two sections.

Slovenian elements *to*, *že* and *pa* are not comparable to English *else* in (28), which is positioned DP-internally. As shown in (28b–d), the English sentence

becomes ungrammatical if we put other syntactic material between the *wh*-phrase and *else*.

- (28) Peter saw Marko. Who **else**?  
 a. **Who else** did Marko see?  
 b. \***Who** did **else** Marko see?  
 c. \***Who** did Marko **else** see?  
 d. \***Who** did Marko see **else**?

Slovenian cases are rather different from the English ones. We support our claim that particles like *to*, *že* and *pa* are not DP-internal with two arguments. Firstly, these elements can be located following the clitic cluster in a regular question. Given that clitic clusters do not break syntactic constituents in Slovenian (Golden and Sheppard 2000, Marušič 2008a), examples (29)–(31) clearly show these particles and the *wh*-words do not form syntactic constituents in Slovenian.

- (29) Koga je **pa** Peter videl?  
 who AUX PTCL Peter see  
 ‘Who it is that Peter saw?’

- (30) Koga je **to** Peter videl?  
 who AUX PTCL Peter see  
 ‘Who it is that Peter saw (exactly)?’

- (31) Koga je **že** Peter videl?  
 who AUX PTCL Peter see  
 ‘(Remind me) Who it is that Peter saw?’

Secondly, Rudin (1988) argued that fronted *wh*-words in Bosnian/Croatian/Serbian (BCS) and Polish do not form a constituent (unlike in Bulgarian and Macedonian) as they can be separated by parentheticals. Golden (1997) shows that Slovenian behaves like BCS when it comes to *wh*-movement and the use of parentheticals. The particles we are interested in can be separated from the *wh*-word by a parenthetical, as shown in (32)–(34), which suggests they do not form a constituent with the *wh*-word.

- (32) Zakaj, po tvojem mnenju, **že** pride?  
 why after your opinion PTCL come  
 ‘Why, in your opinion, he is coming?’

- (33) Kdo, po tvojem mnenju, **to** kupuje hišo?  
 who after your opinion PTCL buying house  
 ‘Who, in your opinion, is buying a house?’

- (34) Kaj, po tvojem mnenju, **pa** kuha?  
 what after your opinion PTCL cooking  
 'What, in your opinion, is he cooking?'

### 3.1 Apparent DP-internal position

But we do find examples in which particles *že*, *pa* and *to* can appear in what seems to be a DP-internal position, as shown in (35). Since these particles cannot appear immediately after the complex DP, as in (35b), but can appear inside the DP as in (35a), this suggests that at least in some cases these elements form a constituent together with the *wh*-phrase.

- (35) a. [Kdo **to** od tvojih bratov ] je kupil motor?  
 who PTCL of your brothers AUX buy motorcycle  
 'Which of your brothers bought the motorcycle?'  
 b. \* [Kdo od tvojih bratov] **to** je kupil motor?  
 who of your brothers PTCL AUX buy motorcycle  
 'Which of your brothers bought the motorcycle?'  
 c. [Kdo od tvojih bratov] je **to** kupil motor?  
 who of your brothers AUX PTCL buy motorcycle  
 'Which of your brothers bought the motorcycle?'

At first sight this does not seem to be a case of Left-Branch-Extraction (LBE). In (35a), it is only *to* that splits the *wh*-phrase, but not the clitic, so the initial *wh*-word does not seem to form an independent syntactic constituent (as already mentioned, Slovenian clitics typically follow the first syntactic constituent, cf. Golden and Sheppard 2000, Marušič 2008a). But under closer inspection, it seems this nevertheless is a case of LBE. We know that Slovenian in general does not allow LBE, as shown by the contrast in (36) in which *pa* cannot break syntactic constituent (cf. Bošković 2008, Marušič and Žaucer 2010).

- (36) a. Sosedov ne bo, prijatelj od tvojega brata **pa** pride.  
 neighbours not AUX friend of your brother PTCL comes  
 'Neighbours will not come, but the friend of your brother will come.'  
 b. \*Sosedov ne bo, prijatelj **pa** od tvojega brata pride.  
 neighbours not AUX friend PTCL of your brother comes

But *wh*-words on the other side seem to allow some LBE, as shown in (37), in which *kdo* 'who' moves out of the complex DP *kdo od Petrovih prijateljev* 'who of Peter's friends'.

- (37) a. Kdo **pa** od Petrovih prijateljev pride?  
 who PTCL of Peter's friends comes  
 'Who of Peter's friends is it that will come?'

- b. Kdo (**pa**) pride od Petrovih prijateljev?  
 who PTCL comes of Peter's friends  
 'Who of Peter's friends is it that will come?'

So given that LBE seems to be possible to some degree with *wh*-words, we can suspect LBE is a possible explanation of (35a). We believe this is the case also because the position of the particle, whether it is in the apparent DP-internal position or outside of the *wh*-phrase has no effect on the kind of presuppositions these particles trigger.

In addition, there seems to be no difference between various versions of these questions with respect to what kind of presuppositions they trigger. In general, depending on the location of the stress, various presuppositions can be triggered. Potentially the particle *pa* also plays a role, but we do not want to go into this issue at this point. In (38), we focus only on two presuppositions and leave others aside as they are irrelevant in this discussion. The two presuppositions we identify are triggered in all examples in (38).

- (38) a. Kdo **pa** od Petrovih prijateljev je prišel?  
 who PTCL of Peter's friends AUX come  
 'Who of Peter's friends was it that came?  
 P (kdo-PA): at least one of Peter's friends came  
 P (pa-od-Petrovih-prijateljev-JE): at least one of Peter's friends didn't come.
- ...
- b. Kdo je **pa** od Petrovih prijateljev prišel?  
 P (kdo-je-PA): at least one of Peter's friends came  
 P (kdo-je-PA): at least one of Peter's friends didn't come
- c. Kdo **pa** je od Petrovih prijateljev prišel?  
 P (kdo-PA): at least one of Peter's friends came  
 P (kdo-pa-JE): at least one of Peter's friends didn't come
- d. Kdo od Petrovih prijateljev je **pa** prišel?  
 P (je-pa-PRIŠEL): at least one of Peter's friends came  
 P (je-PA): at least one of Peter's friends didn't come
- e. Kdo od Petrovih prijateljev **pa** je prišel?  
 P (PA-je): at least one of Peter's friends came  
 P (pa-JE): at least one of Peter's friends didn't come

The relevant conclusion made on the basis of this fact is that there is no difference in the interpretation between the split and non-split *wh*-phrases, which we take as evidence that syntax of these examples is comparable and that the split is a consequence of some late syntactic movement like LBE.

Given all of the above, we can safely conclude that the apparently DP-internal particles do not necessarily form a constituent with the *wh*-word and that our analysis of positioning these particles outside of the *wh*-phrase thus still represents a potential counterexample to the "Sluicing-COMP generalization".

## 4 Particles in the left periphery

In section 3, we have shown that discourse particles occurring with *wh*-words do not form a syntactic constituent with the *wh*-word. Based on the parallel behavior of *že*, *pa* and *to* in *wh*-questions and sluices to other focus and topic material in the left periphery of *wh*-questions in Slovenian, we propose that the discourse particles we are investigating are located in the left periphery of the sentence. We will be focusing on *wh*-questions as we adopt the standard understanding of sluicing, i.e. sluicing as a type of ellipsis in which only the *wh*-phrase ‘survives’ deletion and the sentential portion of a constituent portion is elided (Merchant 2006). This means that sluicing is preceded by *wh*-fronting – the same *wh*-fronting as in *wh*-questions.

### 4.1 Particle co-occurrence (and ordering)

Typically, discourse particles can co-occur (Bayer & Obenauer 2011). This also holds for *pa*, *to* and *že*. For example, *pa* and *še* can appear together in a *wh*-question, (39). In a similar way, *wh*-phrases, Topic and Focus Phrases can appear in a *wh*-question at the same time, as (40) shows (in this example we take *temu fantu* ‘this boy’ to be the topic as it refers to the given constituent *Janez*). Example (41) shows that multiple foci can also appear in a *wh*-question.

- (39) A: Rekel je, da je videl cel kup ljudi.  
 said3SG AUX that AUX saw whole bunch people  
 ‘He said that he saw a whole bunch of people.’  
 B1: Koga **to** **pa** je videl?  
 who PTCL PTCL AUX here  
 ‘Who is it that he saw?’  
 B2: ? Koga **pa** **to** je videl?
- (40) Janez vsako leto dobi goro daril.  
 ‘Janez gets a bunch of presents every year.’  
 a. **Kdo** je temu fantu AVTO kupil za rojstni dan?  
 who AUX this boy car buy for birthday  
 ‘Who bought a CAR to this boy for his birthday?’  
 b. **Kdo** je AVTO temu fantu kupil za rojstni dan?
- (41) Vem, da je Janezu Miha kupil avto,  
 know.1SG that AUX Janez.DAT Miha.NOM buy car.ACC  
 zanima pa me, kdo je MAJI MOTOR kupil.  
 interest PTCL I.DAT who AUX Maja.DAT bike.ACC buy  
 ‘I know that Miha bought a car for Janez, but I am interested in who bought a bike for Maja.’

Based on this we can establish the first similarity between discourse particles and Topic and Focus Phrases in *wh*-questions: just like Topic and Focus Phrases, discourse particles can also co-occur in the left periphery of *wh*-questions.

On the other hand, there are also some differences between discourse particles and Topic and Focus Phrases. That is, while the order of Topic and Focus Phrases in the left periphery of Slovenian *wh*-questions is free, as shown in (40) above, some particles in *wh*-questions come in a fixed word order, as response B2 in example (39) shows for *pa* and *to*. Still, not all discourse particles come in a strict word order. For example, *pa* and *še* seem to be possible in both orders, as shown in (42).<sup>7,8</sup> Examples below can be taken as a response to (39) above:

- (42) B3: Kdo **pa** **še** pride?  
           who PTCL PTCL comes  
           Who else is coming?  
       B4: ?Kdo **še pa** pride?

In addition, some co-occurrences of particles are prohibited because of semantic/pragmatic incompatibility. For example, *že* and *pa* cannot appear in a sluice at the same time because *že* suggests the speaker already knows the answer, while *pa* marks new information:

- (43) A: Miha nekoga ne mara.  
           Miha somebody not like  
           ‘Miha doesn’t like somebody.’  
       B1: #Koga **pa že**?  
           who PTCL PTCL  
           (Intended: Who is it again that Miha doesn’t like?)  
       B2: #Koga **že pa**?

Despite these differences, the crucial similarity remains: just like Focus and Topic Phrases can appear in the left periphery of Slovenian *wh*-questions, so can the discourse particles.

<sup>7</sup> We have left the element *še* out of the discussion so far due to a lack of space. For the most part *še* behaves on par with the discourse particles we presented, it appears to be DP-external and seems to be located somewhere inside the left periphery.

<sup>8</sup> Just like the other elements in this paper, *še* has several uses in Slovenian. While it typically expresses addition and continuity in Slovenian (e.g. *Še hrušk, prosim*. ‘More pears, please.’ or *Miha še spi*. ‘Miha still sleeps.’), it also expresses a presupposition that the information from the preceding sentence was not exhaustive when appearing next to a *wh*-phrase:

- (i) Franc Jožef je bil avstro-ogrski cesar. Kdo **še**?  
       Franz Josef AUX been Austro-Hungarian emperor who else  
       ‘Franz Josef was the emperor of Austro-Hungarian Empire. Who else?’

## 4.2 Co-occurrence with *wh*-phrases

As example (2) above has shown, in a sluice with a single *wh*-phrase, the discourse particle typically follows the *wh*-phrase. This holds when either one or more non-*wh*-elements appear in a sluice or a *wh*-question:

- (44) Vem, da obstaja knjiga, ki nama je obema  
 know.1SG that exist book which us.DAT.1.DUAL AUX both  
 všeč. Katera že <je ta knjiga>?  
 like which PTCL AUX this book  
 'I know that there is a book which we both like. (I want to remember)  
 which <book it is>?'  
 (45) Zabavo je zapustila večina gostov, samo nekaj jih ostaja.  
 party AUX leave most guest only few them stay  
 Kdo pa to <ostaja>?  
 who PTCL PTCL stay  
 'Who <is staying>?'

Again, there are a few exceptions. For example *še*, which we have for the most part left aside, can appear before or after the apparent *wh*-phrase in an ellipsis context or overt question. However, when *še* precedes the *wh*-phrase, the elliptical example can only be interpreted as a yes/no-questions.

- (46) A: Janez ne mara veliko ljudi: delavcev, novinarjev ...  
 Janez not like many people workers journalists  
 'Janez doesn't like a lot of people – workers, students, journalists, ...'  
 B1: Koga še <ne mara>?  
 who else not like  
 'Who else <doesn't he like>?'  
 B2: Še koga <ne mara>?  
 else who not like  
 '<Is there> Anybody else <he doesn't like>?'

Similarly, in *wh*-questions the *wh*-phrase has to move to the clause initial position. This also holds when a *wh*-question includes a Topic or a Focus Phrase. This means that a *wh*-phrase needs to precede the Focused or the Topic Phrase to get a true question reading (in both single and multiple *wh*-questions).

- (47) a. Kaj je Tone kupil lansko leto?  
 what.ACC AUX Tone buy last year  
 'What did Tone buy last year?'  
 c. # Tone je kupil kaj lansko leto?  
 d. # Tone je kaj kupil kaj lansko leto?

- (48) a. *Kam* je MAJO peljal?  
 where AUX Maja.DAT take  
 ‘Where did he take MAJA?’  
 b. # MAJO je *kam* peljal?
- (49) Janez vsako leto dobi goro daril.  
 ‘Janez gets a bunch of presents every year.’  
 a. *Kdaj* je temu fantu Maja kupila darilo?  
 when AUX this boy Maja buy gift  
 ‘When did Maja buy a gift for this boy?’  
 b. ?\* Temu fantu je *kdaj* Maja kupila darilo?

These examples show the second similarity between discourse particles and Topic and Focus Phrases: just as the *wh*-phrase has to move to the clause initial position (in which it precedes Topic and Focused Phrases) in *wh*-questions to get a true question reading, so must a *wh*-phrase precede the discourse particles.

This similarity can also be observed in comparing multiple sluices to multiple *wh*-questions. In a multiple sluice, discourse particles can appear between or after *wh*-phrases (as expected based on single sluices, *še* can also precede all *wh*-phrases, but the sentence gets a yes/no-question interpretation), (50-B2). This is again comparable to the positioning of Topic and Focus Phrases in multiple *wh*-questions, as shown in (51).

- (50) Vem, da je v Zločin in kazen  
 know.1SG that AUX in Crime and punishment  
 nekdo nekoga ubil.  
 somebody.NOM somebody.ACC kill  
 B1: *Kdo* **že** *koga*?  
 who.NOM PTC who.ACC  
 B2: *Kdo* *koga* **že**?  
 who.NOM who.ACC PTCL  
 ‘I know that somebody killed someone in Crime and punishment. (I want to remember) Who <killed> whom?’
- (51) a. *Kdo* je temu fantu AVTO *kdaj* kupil za rojstni dan?  
 who AUX this boy car when buy for birthday  
 ‘When did who buy a CAR for this boy for his birthday?’  
 b. *Kdaj* je AVTO temu fantu *kdo* kupil za rojstni dan?  
 c. *Kdo* je *kdaj* temu fantu AVTO kupil za rojstni dan?  
 d. # Temu fantu je *kdo kdaj* AVTO kupil za rojstni dan?  
 e. # AVTO *kdo* je *kdaj* temu fantu kupil za rojstni dan?

Some speakers allow particles to repeat after each *wh*-phrase. For most speakers, such cases need a pause or the use of *in* ‘and’ after the first non-*wh*-element, which indicates that for the majority of speakers this would be a coordination of two



sluices. For the majority, multiple *wh*-questions and sluices can only get the discourse particle either between or after the *wh*-phrases.

- (52) A: Čeprav je res, da Miha pogosto piše  
 Although AUX true that Miha often writes  
 za ljudi, on ni napisal soneta Juliji.  
 for people he AUX-NEG write sonnet Julija.DAT  
 'Although it is true that Miha writes a lot for other people, he didn't  
 write a sonnet for Julia.'  
 B1: *Kaj pa \*(in/.) komu pa?*  
 what PTCL (and) who.DAT PTCL  
 'What [did he write] for whom?'  
 B2: *Kaj pa komu?*  
 B3: *Kaj komu pa?*

### 4.3 The structure of the left periphery

Based on the similarities between instances of *wh*-questions/sluices with *že*, *pa* and *to* (and in addition, *še*) and *wh*-questions without these, we propose that these elements appear in the left periphery (cf. Rizzi 1997).

Multiple *wh*-questions in Slovenian mandatorily appear with a clause initial *wh*-phrase. We assume that the clause initial *wh*-phrase moves to the Interrogative Projection (InterP) which is responsible for clause typing of (multiple) *wh*-questions (cf. Mišmaš *in prep*). We take Force and Interrogative to be two different projections based on the assumption that Force conveys information relevant to the higher clause and it is subject to the 'higher selector' (Rizzi 1997) and the fact that multiple *wh*-questions can be embedded under a 'declarative' complementizer, which is required by the matrix verb, in Slovenian:

- (53) a. Maja je trdila, da *kdo* *koga* tepe.  
 Maja is claim that who.NOM who.ACC hits  
 'Maja claimed that who hits whom?'  
 b. Maja je trdila, da *koga* *kdo* tepe.

In addition to InterP and ForceP, the left periphery also includes Topic, Focus, and *Wh*-Projections. The structure we propose for the Slovenian left periphery is given in (54). The starred projections are recursive and the projections in brackets do not have a fixed order among themselves (Topic can precede Focus and Wh, but it can also follow one of them or both, same for Focus and Wh).

- (54) Force ... Inter ... (Topic\*) ... (Focus\*) ... (Wh\*) ... Fin [IP

Discourse particles are located in the heads of the left peripheral projections. If such a unified account is on the right track, then we can make a prediction: Just as

discourse particles can survive sluicing, so can the Topic or Focus Phrases from the specifiers of the same projections. This is confirmed with examples in which a focused phrase appears in a sluice in addition to a *wh*-phrase:

- (55) Vem, *kdo* ne mara Jakata, ampak ne  
 know.1SG who not like Jaka.GEN but not  
 vem, *kdo* TONETA.  
 know.1SG who Tone.GEN  
 ‘I know who doesn’t like Jaka, but I don’t know who <doesn’t like> TONE.’

#### 4.4 Extension to other languages

It is a standard assumption that sluicing deletes the TP but not the CP. As the clause initial *wh*-phrase is part of the CP (we assume it is located in the Interrogative Projection of the split CP), it survives sluicing. But Slovenian is a multiple *wh*-fronting and multiple sluicing language, so it cannot be that only one of the split CP projections survive. We propose that it is the entire left periphery that survives sluicing as is further confirmed by various discourse particles, heads of the left peripheral projections.

Just like in Slovenian, other multiple *wh*-fronting and multiple sluicing languages should allow for similar discourse particles to surface in sluicing. As (56) shows, this is indeed the case in Serbo-Croatian.

- (56) A: Ivan je došao. *Serbo-Croatian*  
 Ivan AUX came  
 ‘Ivan came.’  
 B1: Ko još?  
 who else  
 ‘Who else?’  
 B2: Ko to?  
 who this  
 ‘Who?’

Just like discourse particles in Slovenian and Serbo-Croatian, other heads from the left periphery could or even should survive sluicing. In Japanese questions are marked with *ka*, a question marker that sits in one of the left peripheral heads (or simply CP). As shown in (57c), *ka* also survives sluicing.

- (57) a. Ken-ga dareka-ni atta sooda. *Japanese*  
 Ken.NOM someone.DAT met I.heard  
 ‘I heard Ken met someone.’  
 b. Boku-wa [<sub>CP</sub> [<sub>TP</sub> kare-ga dare-ni atta ] **ka** ] wakaranai.  
 I.TOP he.NOM who.DAT met Q not.know  
 ‘I don’t know who he met.’  
 c. Boku-wa [<sub>CP</sub> dare-ni **ka** ] wakaranai.  
 I.TOP who.DAT Q not.know  
 ‘I don’t know who.’

## 5 Conclusion

Merchant (2001) formulates a generalization according to which only *wh*-material can appear in COMP in sluicing. As we have shown, in Slovenian discourse particles, which we believe are heads of various left peripheral projections easily survive sluicing. As shown, Slovenian is not the only language that allows such a violation of Merchant's generalization.

In light of the data presented in this paper, the nature of sluicing and the "Sluicing-COMP Generalization" should be reconsidered. Several questions come to mind: is it always the case that non-*wh*-material in the left periphery does delete or are there cases where they delete together with the rest of the clause; is there variation between languages as to what deletes; what about other languages with discourse particles, do they survive there too?

## References

- Bernstein, Judy B. (2008). English *th*- forms. In Henrik H. Müller and Alex Klinge. *Essays on nominal determination: From morphology to discourse management*, Amsterdam: John Benjamins, pp. 213–232.
- Bošković, Željko (2008). The NP/DP analysis and Slovenian. In *Proceedings of the University of Novi Sad Workshop on Generative Syntax*. Novi Sad, University of Novi Sad, pp.53–73.
- Bayer, Josef and Hans-Georg Obenauer (2011). Discourse particles, clause structure, and question types. *The linguistic review* 28.4, 449–491.
- Craenenbroeck, Jeroen van (2005). Subtypes of sluicing. Hand-out at EGG Summer School Wrocław, 25.7–5.8. 2005.
- Craenenbroeck, Jeroen van & Anikó Lipták (2006). The cross-linguistic syntax of sluicing. *Syntax* 9.3, 248–274.
- Golden, Marija (1997). Multiple *wh*-questions in Slovene. In Wayles Browne et al. *FASL: The Cornell Meeting, 1995*. Ann Arbor: Michigan Slavic Publications, pp. 240–266.
- Golden, Marija & Milena Milojević Sheppard (2000). Slovene pronominal clitics. In Frits H. Beukema & Marcel den Dikken. *Clitic phenomena in European languages*. Amsterdam: John Benjamins, pp. 191–208.
- Klinge, Alex. 2008. Stating the case for *th*- root and *hw*- root determiners. In Henrik H. Müller & Alex Klinge. *Essays on nominal determination: From morphology to discourse management*. Amsterdam: John Benjamins, pp. 233–263.
- Leu, Thomas. 2008. The internal syntax of determiners. PhD Thesis, New York University.
- Marušič, Franc, Petra Mišmaš, and Rok Žaucer (2011). Some notes on the Slovenian second-position conjunction *pa*. Handout of a talk give at GLiP 7 in Wrocław.
- Marušič, Franc (2008a). Slovenian Clitics Have No Unique Syntactic Position. In Andrei Antonenko et al., *FASL 16: The Stony Brook Meeting*, pp. 266–281.

- 
- Marušič, Franc (2008b). CP under control. In Gerhild Zybatow et al. *Formal Description of Slavic Languages: The Fifth Conference, Leipzig 2003*. Frankfurt a/Main: Peter Lang, pp. 408–422.
- Marušič, Franc and Rok Žaucer (2010). Clitic doubling in a determinerless language with second position clitics. In Gerhild Zybatow et al. *Formal Studies in Slavic Linguistics, Proceedings of FDSL 7.5*. Frankfurt am Main: Peter Lang, pp. 101–115.
- Merchant, Jason (2001). *The Syntax of Silence: Sluicing, Islands, and the Theory of Ellipsis*. Oxford: OUP.
- Merchant, Jason (2006). *Sluicing*. In Martin Everaert and Henk van Riemsdijk. *The Syntax Companion*. London: Blackwell, pp. 269–289.
- Mišmaš, Petra (in prep.). On the optionality of *wh*-fronting in a multiple *wh*-fronting language. PhD Thesis, University of Nova Gorica.
- Progovac, Ljiljana (2005). *A Syntax of Serbian: Clausal Architecture*. Indiana University: Slavica Publishers.
- Rizzi, Luigi (1997). The fine structure of the left periphery. In Liliane Haegeman, *Elements of grammar*. Dordrecht: Kluwer, pp. 281–337.
- Ross, John R. (1969). Guess who? In Robert I. Binnick et al., *Papers from the 5th regional meeting of the Chicago Linguistic Society*. Chicago: Chicago Linguistic Society, pp. 252–286.
- Rudin, Catherine (1988). On multiple questions and multiple Wh-fronting. *Natural Language & Linguistic Theory* 6.4, 445–501.
- Di Sciullo, Anna Maria. 2005. *Asymmetry in morphology*. Cambridge: MIT Press.
- Šimik, Radek (2009). The syntax, semantics, and pragmatics of the focus particle ‘to’ in Czech. In Gerhild Zybatow et al. *Proceedings of FDSL 7, Leipzig 2007*. Frankfurt am Main: Peter Lang, pp. 327–340.