

Chapter 9

Surviving sluicing

Franč Marušič

University of Nova Gorica

Petra Mišmaš

University of Nova Gorica

Vesna Plesničar

University of Nova Gorica

Tina Šuligoj

University of Nova Gorica

In this paper, we discuss examples of sluicing in Slovenian in which, in addition to a wh-phrase (or wh-phrases in instances of multiple sluicing) discourse particles appear. This is unexpected given Merchant's (2001) Sluicing-COMP generalization, as already observed in Marušič, Mišmaš, Plesničar, et al. (2015), even though there are several languages in which similar cases exist, e.g. German. In this paper we focus on discourse particles *pa* and *že* in (multiple) wh-questions and sluicing. These examples are not only important for our understanding of sluicing but are also crucial for analyzing discourse particles in Slovenian. Based on examples with sluicing and discourse particles in Slovenian, we argue against positioning these particles within the wh-phrase, clitic cluster or the IP.

Keywords: Slovenian, sluicing, particles, sluicing-COMP generalization

1 Introduction

In this paper we address the phenomenon already discussed in Marušič, Mišmaš, Plesničar, et al. (2015), i.e. cases in which in addition to a wh-phrase a discourse particle appears in sluicing in Slovenian. These cases are unexpected given the

standard understanding of sluicing, which is in Ross (1969) described as deletion of parts of the embedded question that are identical to some part of the antecedent clause, leaving only the *wh*-phrase, as shown in (1).

- (1) I heard somebody, but I don't know [who I heard].

Despite Ross' definition of sluicing as a phenomenon in embedded clauses, today, sluicing is taken to be a type of ellipsis phenomenon "in which the sentential portion of a constituent question is elided, leaving only a *wh*-phrase remnant" (Merchant 2006: 271) which can occur in embedded or root clauses. In what follows, all Slovenian examples will be cases with sluicing in root clauses.¹

The insight that only the *wh*-phrase remnant appears in sluicing is formalized in Merchant's Sluicing-COMP generalization, given in (2), in which "operator" stands for "syntactic *wh*-XP", "material" for any pronounced element, and "COMP" for "material dominated by CP but external to IP" (Merchant 2001, 62). Given a standard understanding of what CP represents, if one assumes the expanded left periphery à la Rizzi (1997), we assume this generalization was meant to be read as follows: In sluicing only *wh*-phrases survive ellipsis as they are the only elements occupying the left periphery. Apart from the *wh*-phrase, the left periphery does not contain any overt elements.²

(2) **Sluicing-COMP generalization**

In sluicing, no non-operator material may appear in COMP.

(Merchant 2001: 62, (71))

Given this, as observed in Marušič, Mišmaš, Plesničar, et al. (2015), examples such as (3) are unexpected. In all examples given in (3), non-*wh*-material survives sluicing:³

¹While sluicing also exist in embedded clauses in Slovenian, as (i) shows, examples with discourse particles, which we are looking at in this paper, are limited to root clauses. This is not surprising, given that discourse particles are typically a root clause phenomenon, which is related to their relation to both the illocutionary force and sentence type of the clause (Bayer & Obenauer 2011: 452).

(i) Vid je nekoga srečal. Ne vem, koga (*pa).
Vid AUX someone met.ACC not know who.ACC PTCL
'Vid met someone. I don't know who.'

²This seems exactly what Merchant's informal explanation of his generalization says: "The claim is that only segments directly associated with the syntactic operator – the *wh*-XP – will be found overtly in sluiced interrogatives." (Merchant 2001: 62)

³Wh-elements in Slovenian contain the *wh*-morpheme *k-/č-*, the particles, however, do not (cf. Marušič, Mišmaš, Plesničar, et al. 2015).

- (3) a. Vid je srečal nekoga. Koga pa?
 Vid AUX met someone. Who PTCL
 'Vid met someone. Who <did he meet>?'
 b. Vid je srečal nekoga. Koga že?
 Vid AUX met someone. Who PTCL
 'Vid met someone. Remind me, who <did he meet>?'
 c. Vid je srečal Janeza. Koga še?
 Vid AUX met Janez. Who PTCL
 'Vid met someone. Who else <did he meet>?'
 d. Vid je srečal nekoga. Koga to?
 Vid AUX met someone. Who PTCL
 'Vid met someone. Who <did he meet>?'
 e. Vid je srečal nekoga. Koga spet?
 Vid AUX met someone. Who again
 'Vid met someone. Who (are you saying again) <did he meet>?'
 f. Vid je srečal nekoga. Koga pa to?
 Vid AUX met someone. Who PTCL PTCL
 'Vid met someone. Who <did he meet>?'
 g. Vid je srečal Ano pa še nekoga. Koga pa še?
 Vid AUX met Ana and also someone. Who PTCL PTCL
 'Vid met Ana and someone else. Who else <did he meet>?'

As *wh*-phrases in sluicing can also be complex, as in (4), one can imagine these discourse particles that follow *wh*-words in (3) could also be part of a complex *wh*-phrase.

- (4) A: Peter je videl neko punco.
 Peter AUX saw some girl.
 'Peter saw some girl.'
 B: Katero punco?
 which girl
 'Which girl?'

As shown in Marušič, Mišmaš, Plesničar, et al. (2015) these particles do not form a constituent with the *wh*-material, but are rather a part of the extended left periphery (in the sense of Rizzi 1997) that is not elided in sluicing in Slovenian.⁴

⁴Note that examples in (3) are also not instances of swiping (Merchant 2002), as these particles are not prepositions, or spading (van Craenenbroeck 2010), as these particles are not demonstrative pronouns.

In this paper we look at the sluicing examples with particles more closely in order to better understand where exactly particles are located and where they originate. We present new arguments against placing particles inside *wh*-phrases and show that particles really are part of the left periphery and thus offer further support for the analysis according to which non-*wh*-material in the left periphery does not have to be elided in sluicing in Slovenian (Marušič, Mišmaš, Plesničar, et al. 2015).

We start with an assumption that sluicing is the ellipsis of the IP portion of a constituent question (Ross 1969; Merchant 2001; 2006), which means the examples in (3) are parallel to the examples in (5).⁵ Based on this, we discuss the role of discourse particles in both *wh*-questions and sluicing. From now on, we gloss the two Slovenian particles under discussion as *PA* and *ŽE*.

- (5) a. Koga *pa* je Peter videl?
 who.ACC *PA* AUX Peter.NOM saw
 ‘Who did Peter see?’
 b. Koga *že* je Peter videl?
 who.ACC *ŽE* AUX Peter.NOM saw
 ‘Who did Peter see?’

While examples in (3) show that there are several discourse particles that can appear in sluicing in Slovenian, we focus only on discourse particles *že* and *pa* here. Some initial thoughts on other particles in sluicing can be found in Marušič, Mišmaš, Plesničar, et al. (2015), but since the role of Slovenian discourse particles in *wh*-questions has previously not been sufficiently described, we start off by showing some properties these elements display when they are used as discourse particles (and not topic or focus particles). Both *pa* and *že* have many different uses and meanings, which we will discuss in §2. In §3 we take examples with sluicing and the particles *pa* and *že* to give new arguments both against positioning these particles within the *wh*-phrase and to show that in addition to (complex) *wh*-phrases non-*wh*-material can also survive sluicing in Slovenian. In §4 we discuss the position of discourse particles with respect to the clitic cluster and the adverbs in the IP to show that discourse particles appear in the left periph-

⁵We are avoiding the debate on the nature of the ellipsis site in sluicing, particularly whether it has the same exact structure as the antecedent (which is what we adopt, following Ross 1969, Merchant 2001, and others) or whether it is structurally empty with its content being supplied by re-using syntactic structure from some accessible point elsewhere in the discourse (which is what Chung et al. 1995, 2011, among others are arguing for). Our data do seem to favor the approach we are adopting, but we do not want to go into this discussion here.

ery, higher than IP adverbs, confirming the earlier proposal by Marušič, Mišmaš, Plesničar, et al. (2015). §5 concludes the paper.

2 Discourse particles *že* and *pa* in Slovenian wh-questions

In general particles *že* and *pa* (as do other discourse particles in Slovenian) display some properties that are typically found with discourse particles cross-linguistically. For example, as Zimmermann (2011) notes, discourse particles carry more than one function and can also be used as focus particles, discourse markers (i.e. markers that establish coherence in the discourse) or adverbials.⁶ This also holds for *pa* and *že*, e.g. *že* is also an aspectual adverb. Furthermore, discourse particles in Slovenian are optional (as in other languages, see Bayer & Obenauer 2011 for German), to a certain extent various discourse particles can appear simultaneously in the clause, they are sensitive to clause type, they normally do not bare stress, and are monosyllabic. And perhaps most importantly, discourse particles do not modify the proposition, but rather the utterance (Bayer & Obenauer 2011) as they express speakers' attitude towards the utterance (Zimmermann 2011). To further show properties of particles *že* and *pa* in Slovenian, we discuss them separately in this section.

2.1 *Že* as a discourse particle

Etymologically the origin of Slovenian particle *že* is closely related to the morpheme *-r* that one finds in relative pronouns in Slovenian (*kdor* 'who', *kar* 'what', *kjer* 'where'). Both are etymologically related with the Indo-European particle **g^he/*g^ho* that has developed into particles in several Slavic languages, for example *že* in Russian (see Hagstrom & McCoy 2003 for its interpretation in wh-questions), and *že* in Czech (Gruet-Skrabalova 2012) (cf. Mitrović 2016). But despite the common source, languages differ with respect to the actual meaning of *že*.

For example, Gruet-Skrabalova (2012) shows that the Czech *že* is a complementizer that can be used in declarative and interrogative clauses. In embedded contexts *že* combines with the declarative clause and it marks syntactic dependence of embedded clause, but *že* also triggers an echo-interpretation in Czech.⁷

⁶For further differences between discourse markers and discourse particles see, for example, Zimmermann (2011).

⁷Czech particle *že* is in many respects similar to Slovenian *da* 'that', which can be used as a complementizer or a discourse particle, see Marušič, Mišmaš, Plesničar, et al. (2015) for more on this topic.

That is, in *wh*-questions, following Gruet-Skrabalova (2012) *že* indicates that the speaker has not heard or that (s)he refuses to accept a previous utterance. For example, (6) is used to check whether the part of the utterance asked by the *wh*-word was asserted in the previous context, see Gruet-Skrabalova (2012) for more on Czech *že*.

(6) A: Kam že Petr šel?
where that Peter went
'Peter went where?'

B: Přece do restaurace!
indeed to restaurant
'(I said he went) to a restaurant.'

(Czech; Gruet-Skrabalova 2012: 5, (10))

As McCoy (2003) observes, Russian *že* can function as a modal/affective particle, focus marker, marker of contrastive focus, emphasis marker, thematic/ organizational/ textual *že*, marker of (re-)activated information, and marker of a reference point in the activated domain of reference. Hagstrom & McCoy (2003) and McCoy (2003) observe the following contexts with distinctive occurrences of *že* in Russian: *yes-no* questions, *wh*-questions, statements with phrasal scope and statements with sentential/propositional scope. Example (7) shows the use of *že* in a *wh*-question. Crucially, it depicts a situation where the child wants to sleep in the morning, which seems unreasonable to the mother, as the child is not supposed to have a reason to feel sleepy at that time. That is, example (7) is a rhetorical question, where *že* roughly corresponds to the English *in the world*. As shown in (8), *že* can be used in Slovenian in a similar way.⁸

(7) Varen'ka, nu Varen'ka, nu začem že tebe baj-baj s
Varen'ka PTCL Varen'ka PTCL why PTCL to.you night-night from
utra.
morning.
'Well, Varen'ka, why in the world do you need night-night in the
morning?'

(Russian; McCoy 2003: 125)

⁸As McCoy (2003) observes, in these rhetorical questions the speaker does not expect a possible reasonable/true answer. Moreover, her conclusion is that *že* in *wh*-questions applies to every member of set of contextually accessible answers to the question, generating presupposition for each proposition in the set. Therefore, Russian *že* in *wh*-questions generates presupposition that the possible answers from the set in question have already been evaluated as false and the same applies to Slovenian *že* under conditions as presented in (8).

- (8) *Situation:* Ana asks Vid for help and Vid answers (in a bit irritated tone):
 Zakaj že bi ti pomagal?
 why ŽE COND you helped
 ‘Why on earth should I help you?’

While (8) already shows one meaning of the particle *že*, *že* most commonly appears as an aspectual adverb meaning ‘already’, as shown in (9). Using *že* as an aspectual adverb is very common, and while in some cases *že* can receive this interpretation in addition to the discourse particle reading, this is not directly relevant for the present discussion.⁹

- (9) Peter je že šel na počitnice.
 Peter AUX ŽE went on vacation
 ‘Peter has already left for the vacation.’

While we can also find the aspectual meaning in *wh*-questions, the use of *že* in sluicing or a *wh*-question more importantly indicates that the speaker knows the answer to the question but does not remember it. We will refer to this reading as the ‘remind-me’ reading, following Sauerland & Yatsushiro (2014), and will use *že-R* to refer to the morpheme carrying this meaning. The morpheme carrying the aspectual reading will be referred to as *že-A*. The former reading is apparent in the following scenario. Imagine we visit our friend Peter in April, but his mother tells us he is not home, we remember that he is never home in the spring and we actually know where he always travels in the spring, but at the moment we cannot recall where he travels. We ask his mother the question in (10) as a ‘remind-me’ question.

- (10) Kam že hodi vsako leto?
 where ŽE goes every year
 ‘(Remind me) Where does he go every year?’

⁹There are also other meanings, for example, *že* can be used to express agreement with a statement:

- (i) A: Miha je opral obleke.
 Miha AUX washed clothes
 ‘Miha washed the clothes.’
 B: Že že, a ne vem, kdo jih je zlikal.
 ŽE ŽE but not know who it.ACC AUX ironed
 ‘True, but I don’t know who ironed them.’

This meaning is possible in *wh*-questions and in sluicing, while *že* in *yes/no*-questions (or in declarative sentences), such as (11), can receive the aspectual reading, but not the ‘remind-me’ reading.

- (11) A je že opral obleke?
 Q AUX ŽE washed clothes
 Available: ‘Did he already wash the clothes?’
 Unavailable: ‘(Remind me) Did he was the clothes?’

Interestingly, as shown in (12b), both the ‘remind-me’ interpretation and the aspectual reading of *že* are available when *že* and the *wh*-word are not adjacent. In relation to this, two things need to be noted. First, the availability of *že-R* in (12b) implies that *kaj* ‘what’ and *že-R* do not necessarily form a constituent, as clitics do not split syntactic constituents in Slovenian.¹⁰ Second, when *že* precedes the auxiliary clitic, only the ‘remind-me’ reading is available.¹¹

- (12) a. Kdo že je naslikal Guernico?
 who ŽE AUX painted Guernica.ACC
 Available: ‘(I need to remember) who painted Guernica?’
 Unavailable: ‘Who already painted Guernica?’
 b. Kdo je že naslikal Guernico?
 who AUX ŽE painted Guernica.ACC
 Available: ‘(Remind me) who painted Guernica?’
 Available: ‘Who already painted Guernica?’

In a *wh*-question *že-R* follows the *wh*-phrase. Examples in which *že-R* precedes the *wh*-word are unacceptable, as *wh*-phrases need to appear in a clause initial position in Slovenian *wh*-questions, see Mišmaš (2016).

¹⁰Consider for example the ungrammaticality of (i.b):

- (i) a. Poletni dež je prekinil zabavo.
 summer rain AUX stopped party
 ‘Summer rain stopped the party.’
 b. *Poletni je dež prekinil zabavo.

¹¹A note on intonation is needed. That is, when (12b) is interpreted as a *wh*-question with *že-A*, it will also receive a normal *wh*-intonation. On the other hand, *že-R* in (12b) is emphasized and the question ends with a rising intonation (similar to the intonation in *yes/no*-questions). Interestingly, (12a) does not receive a true *wh*-reading if we change the intonation and the only interpretation it can receive is the ‘remind me’-reading. This implies that the intonation does not trigger the ‘remind-me’ interpretation of the *wh*-question.

- (13) *Že kdo je naslikal Guernico?
 ŽE who AUX painted Guernica
 Intended: '(Remind me) who painted Guernica?'

In sluicing, *že* can only receive the 'remind-me' reading, as (14) shows. That is, (14) can be used in a context where the speaker is playing a game, where (s)he needs to name the author of Guernica. The speaker knows the answer, but cannot remember it, so (s)he utters:¹²

- (14) Seveda vem, kdo je naslikal Guernico. Kdo že?
 of course know who AUX painted Guernica.ACC who ŽE
 'Of course I know who painted Guernica? (I need to remember) Who?'

Crucially, in (14) *že* cannot be interpreted as an aspectual adverb. Given that aspectual adverbs are located in the IP area and as sluicing is said to delete the entire IP area, the lack of aspectual reading for *že* is expected. And as *že*-R is available in the structure where IP is supposedly missing, we have an argument to assume *že*-R originates inside the left periphery. We return to this questions below in §4.

2.2 *Pa* as a discourse particle

Following Snoj (2009), *pa* (which has counterparts in several Slavic languages, for example in Serbo-Croatian as *pa* and *pak*, meaning 'again' or 'then', and Czech *pak* 'then, after') is related to *paky* 'again', 'also' in Old Church Slavonic and originates from Proto-Slavic **pākъ*, which originally meant 'differently', 'again', 'later', and probably also 'wrong' and 'bad'; see Snoj (2009) for more information on the etymology of *pa*.

Today, *pa* is a very common element in Slovenian, especially in colloquial language. The particle *pa* can be used in regular coordinations (similarly to standard Slovenian 'and'), (15), and as a subordination complementizer such as the standard Slovenian *ampak* 'but'. In the latter use *pa* typically appears in the second position (see Marušič, Mišmaš & Žaucer 2011 for more data), as can be seen from the examples in (16).

¹²In sluicing, *že* can be used in rhetorical questions, already discussed above. That is, (i) can be used in the situation described in (8).

- (i) A pomagam ti naj? Zakaj že?
 Q help.1SG you.DAT should why ŽE
 'Oh, I should help you? Why?'

- (15) Peter *pa* Ana plešeta.
 Peter and Ana dance
 ‘Peter and Ana are dancing.’
- (16) a. Peter pleše, poje *pa* ne.
 Peter dances sings but not
 ‘Peter dances, but does not sing.’
 b. Peter pleše, ampak ne poje.
 Peter dances but not sings
 ‘Peter dances, but does not sing.’

The particle *pa* can function as a topic marker or as a contrastive focus marker in declarative sentences. *Pa* used as a topic marker is given in (17). In the context where friends are talking about various people dancing and someone asks about a certain person called ‘Peter’, (17) could be a natural reply. *Pa* can also be a contrastive focus marker, as in (18).

- (17) Petra *pa* še nisem videl plesati.
 Peter.GEN *PA* yet NEG.AUX see dance.INF
 ‘As for Peter, I have not seen him dance yet.’
- (18) Jaz bom plesal tango, ti *pa* step.
 I will.1SG dance tango you *PA* tap
 ‘While I will be dancing the tango, you should tap dance.’

Pa can be a topic/focus marker in wh-questions as well. In this role, *pa* interacts with an emphasized constituent. Based on an emphasis (marked with smallcaps), the meaning of the question in (19) varies slightly, however, we are here focusing on *pa* as a discourse marker, so we are leaving these cases aside.

- (19) a. Kdo *pa* PLEŠE s Petrom?
 who *PA* dance with Peter.INS
 ‘(We know who runs with Peter, but we want to know) who dances with Peter?’
 b. Kdo pleše *pa* s PETROM?
 who dances *PA* with Peter.INS
 ‘(We know about who dances with the others, but we want to know) who dances with Peter?’

As a discourse marker, *pa* is associated with a strongly presupposed context (see Cheng & Rooryck 2000 for this interpretation of wh-in situ questions in French).

That is, the situation is established and/or is presupposed and we are seeking details about the situation. Hence, just like what Cheng & Rooryck (2000) claim for French, a negative answer to a *wh*-question with the discourse particle *pa* is unexpected. For example, if we ask (20a) we already know that someone was visiting we just do not know who was visiting. Getting a negative answer ('Nobody.') is not impossible, but it would be surprising for the speaker to get this answer. Side note, (20b) shows that *pa* can appear before or after the auxiliary clitic, just like *že*, which again indicates that the particle and the *wh*-phrase do not form a constituent.

- (20) a. Kdo *pa* je bil na obisku?
 who PA AUX was on visit
 '(I know someone was visiting, tell me) Who was visiting?'
 b. Kdo je *pa* bil to?
 who AUX PA was this

This reading, related to the strongly presupposed context, is also available in sluicing.¹³ So, if we hear (21a) and we reply with the sluices in (21b) or (21c), this means that we potentially already knew (21a) or we fully accept (21a), but we need additional information about what and when Ana was eating.

- (21) a. Ana je nekaj pojedla.
 Ana AUX something ate
 'Ana has eaten something.'
 b. Kaj *pa* je—pojedla?
 what PA AUX ate
 'What?'
 c. Kdaj *pa* je—pojedla?
 when PA AUX ate
 'When?'

Examples in this section show that discourse particles can appear in sluicing in Slovenian, but more importantly, indicate that not only operator material survives sluicing, as we would expect given Sluicing-COMP generalization (Merchant 2001). The question is then why discourse particles in Slovenian are able to do so.

¹³ *Pa* in sluicing can also be a contrastive focus particle – for example (21b) can also be interpreted as a response to a context in which we already know what Ana did not eat but we want to know what she did eat (cf. Marušič, Mišmaš, Plesničar, et al. 2015). While interesting, we are leaving this reading aside here.

3 Wh-phrases, discourse particles and... what else?

While we have only considered particles thus far, we also need to consider instances of the so called contrast sluicing, i.e. cases “where the correlate is a focused definite expression, rather than an indefinite” (Vicente 2018: 12). We can find contrast sluicing in English as well (Merchant 2001: 36):

- (22) a. She has five cats, but I don’t know how many dogs.
 b. We already know which streets are being repaved, but not which avenues.
 (Merchant 2001: 36, (81a,d))

Cases just like these exist in Slovenian, too, and in Slovenian, just as in English, the *wh*-phrase and the “contrast” can form a complex *wh*-phrase:

- (23) a. Ima pet mačk, ne vem pa koliko psov.
 have.3SG five cats not know but how.many dogs
 ‘(S)He has five cats, but I don’t know how many dogs.’
 b. Vemo, katere ulice bodo ponovno tlakovane, a ne, katere
 know.1PL which streets AUX again paved but not which
 avenije.
 avenues
 ‘We know which streets are being repaved, but not which avenues.’

However, the availability of complex *wh*-phrases in sluicing in Slovenian, does not account for instances of discourse particles in sluicing, as already observed in Marušič, Mišmaš, Plesničar, et al. (2015). That is, based on the observations that discourse particles in Slovenian (i) can be separated from the *wh*-word by parentheticals, shown below for *pa* in a *wh*-question and a sluice, (24) and (25a), respectively, (ii) can appear after the auxiliary clitic, cf. example (12b) and (20b), which in Slovenian does not break syntactic constituents and (iii) that particles cannot appear with unmoved *wh*-phrases, Marušič, Mišmaš, Plesničar, et al. (2015) conclude that in Slovenian, discourse particles do not form a constituent with *wh*-phrases.

- (24) Kaj, po tvoje, pa kuha?
 what after yours PA cook
 ‘What, in your opinion, is he cooking?’
 (25) a. Ana je nekaj pojedla.
 Ana AUX something ate
 ‘Ana ate something.’

- b. Kaj, po tvojem mnenju, pa je—pojedla?
 what after your opinion PA AUX ate
 ‘What, in your opinion did she eat?’

In fact, the same conclusion can be made based on examples that show that the same particle cannot appear after all *wh*-phrases in multiple sluicing in Slovenian. That is, while multiple sluicing by itself is acceptable in Slovenian (a multiple *wh*-fronting language) and while particles can only marginally appear after each of the *wh*-phrases in multiple sluicing, these have to be different particles (we are not discussing the particle *to* here, but see Marušič, Mišmaš, Plesničar, et al. 2015); compare (27b) with (27e). Imagine a context in which you lend your glasses to a friend who had a party and the next day, the friend comes by to explain the situation and you demand to know:

- (26) Na zabavi je nekdo nekomu metal kozarce in jih
 on party AUX somebody.NOM somebody.DAT throw glasses and them
 razbil.
 broke
 ‘At the party, somebody threw glasses at somebody and broke them.’
- (27) a. Kdo komu?
 who.NOM who.DAT
 ‘Who (threw the glasses) to whom?’
- b. *Kdo pa komu pa?
 who.NOM PA who.DAT PA
- c. Kdo komu pa?
 who.NOM who.DAT PA
 ‘(I want to know) Who (threw the glasses) to whom?’
- d. Kdo pa komu?
 who.NOM PA who.DAT
 ‘(I want to know) Who (threw the glasses) to whom?’
- e. ?Kdo pa komu to?
 who.NOM PA who.DAT TO
 ‘(I want to know) Who (threw the glasses) to whom?’

If particles would form a constituent with each individual *wh*-phrase prior to movement, we would expect (27b) to be just as acceptable as (28b) in which the sluice consists of two complex *wh*-phrases that only differ in their case features. But as shown, this is not the case.

- (28) a. En slikar je drugega naslikal.
 one painter AUX other painted
 'One painter painted the other one.'
- b. Kateri slikar katerega slikarja?
 which painter.NOM which painter.ACC
 'Which painter which painter?'

This can then be taken as an additional argument against particles forming a constituent with the *wh*-phrase and shows that instances of sluicing with discourse particles are not simply parallel to cases in which a complex *wh*-phrase survives sluicing. But, crucially, this shows that discourse particles in *wh*-questions in Slovenian are not located within the *wh*-phrase.

Furthermore, in Slovenian 'contrast' sluices are not necessarily complex *wh*-phrases, but rather consist of a *wh*-phrase (simplex or complex) and a non-*wh*-phrase. Even more, this non-*wh*-phrase can be discourse given, (29), or new, (30).

- (29) a. Srečala sem Vida in Črta. Vid je bil z Ano.
 met AUX Vid.ACC and Črt.ACC Vid.NOM AUX was with Ana.INS
 'I met Vid and Črt. Vid was accompanied by Ana.'
- b. In s kom Črt?
 and with who Črt.NOM
 'And Črt was with whom?'
- (30) a. Ne spomni se, kje je Nik spoznal Majo?
 not remember REFL where AUX Nik.NOM met Maja.ACC
 '(S)He doesn't remember where Nik met Maja.'
- b. Ne, kje Kekec Mojca.
 no where Kekec.NOM Mojca.ACC
 'No, (s)he can't remember where Kekec met Mojca.'

Based on similar examples, Marušič, Mišmaš, Plesničar, et al. (2015) suggest that in sluicing in Slovenian, the non-*wh*-material in the left periphery is not elided but we can in turn take it as an indicator that the particles do not have to form a constituent with the *wh*-phrase in sluicing examples. In the next section, we maintain the analysis from Marušič, Mišmaš, Plesničar, et al. (2015) and focus on the position of discourse particles in Slovenian *wh*-questions and in doing so give new arguments for the proposed analysis.

4 Position of particles

While particles are well studied in some languages, for example in German, particles in *wh*-questions have not been previously studied in Slovenian (at least not within the generative framework). In what follows we focus on the position of particles *že* and *pa* in Slovenian *wh*-questions. Focusing on examples with sluicing we show that the particles are not a part of the clitic cluster in Slovenian, despite their lack of stress and what at first glance seems to be simply a clause second position. Furthermore, we take instances of particles in sluicing as evidence that these particles are not a part of the IP.

4.1 Discourse particles are not part of the clitic cluster

Traditionally discourse particles *pa* and *že* are said to be part of the clitic cluster in Slovenian, specifically, Toporišič (2000) places them as the last clitics of the clitic cluster. Similarly, Orešnik (1985) suggests that at least one variety of the particle *pa* should be seen as part of the clitic cluster. Toporišič (2000) does not make any distinction between various types of particles *pa* and *že*, he considers all of them comparable to the negation clitic *ne* and other particles like *še* ‘more’/‘still’, *da* ‘that’/‘yes’, etc. If particles are part of the clitic cluster and if clitic cluster is a conglomeration of syntactic heads that is adjoined to the C head (as in Golden & Sheppard 2000), we would expect, contrary to fact, that particles would behave like clitics and should thus, just like other clitics within the same cluster, not be possible in sluicing, as shown in (31).

- (31) Ilija mu ga nekje razlaga. Kje že (*mu ga)?
 Ilija him it somewhere explains where ŽE him it
 ‘Ilija is explaining it to him. (Remind me) Where (is Ilija explaining it to him)?’

Given the assumptions explained above and the example (31) we cannot but conclude that the particles that we observe in sluicing in Slovenian must be DP-internal, while the particles that we observe in *wh*-questions originate from a position inside the IP, as the complementizer is the first clitic inside the clitic cluster. This goes against the findings of Marušič, Mišmaš, Plesničar, et al. (2015) and our own conclusions about the nature of these particles in sluicing and *wh*-questions. Our goal now is thus to show that the “cluster-final” particles are not truly part of the clitic cluster and that additionally, the (mainstream) assumptions about clitic placement explained above also need to be (at least partially) revised or discarded.

First, as claimed by Marušič (2008), clitics forming the clitic cluster are not adjoined to C as they can easily appear following a word that should be located lower in the clause (cf. Bošković 2001 for BCS clitics). Orešnik (1985) gives another argument against placing the clitic cluster in the C head. As he puts it, the complementizer should not be seen as a part of the clitic cluster as focused phrases can split the complementizer from the rest of the clitic cluster, as in (32b) taken from Orešnik (1985).

- (32) a. ... {in / ker / da} si ga Janez lahko kupi.
 and as that REFL it Janez can buy
 ‘... {and / as / that} Janez can buy it.’
 b. ... {in / ker / da} JANEZ si ga lahko kupi.
 and as that Janez REFL it can buy
 ‘... {and / as / that} Janez can buy it.’

If clitics move in overt syntax, then the clitic cluster that is apparently not adjoined to C needs to be hosted by a lower head – a head within IP. So for the particle at the end of the clitic cluster that would mean its place of origin should also be somewhere inside the IP, which further suggests our analysis is simply wrong. We can dismiss this argument saying Slovenian clitics do not move in syntax (as suggested by Marušič 2008 and Marušič & Žaucer 2017) or that at least the clitic cluster is not composed in syntax, for which there also seems to be evidence given that the order of clitics inside the cluster is not universal and does not follow any order predicted by the assumed structure (cf. Marušič 2016), but let us try and argue against the cluster-internal position of the discourse particles also within the mainstream view on clitics.

As noted above, the two particles *že* and *pa* can actually appear either before or after the clitic cluster, as shown in (20b) for *pa* and in (12b) for *že*, and in (33) for both. Given that all other clitics forming the clitic cluster have a fixed word-order (with some variation in the order of dative and accusative clitics), we can conclude that the two clitics are not part of the clitic cluster but appear either cluster-initially or cluster-finally by accident.

- (33) a. Koga {že mu je / mu je že} Ilija predstavil?
 who ŽE him AUX him AUX ŽE Ilija introduced
 ‘(Remind me) who did Ilija introduce to him?’
 b. Kaj {pa mu je / mu je pa} Žodor narisal?
 what PA him AUX him AUX PA žodor drew
 ‘What did Žodor draw for him?’

Another argument given above to show these particles do not form a constituent with the *wh*-word can be turned around. As shown in (24) repeated here as (34), *pa* can follow the parenthetical ‘in your opinion’, but note that *pa* can also precede the parenthetical and appear on the other side of the parenthetical separated from the rest of the clitic cluster, (35). This suggests *pa* is an element independent from the clitic cluster that is located structurally higher than the final position of the clitic cluster.

- (34) Kaj, po tvoje, pa kuha?
 What after yours PA cook
 ‘What, in your opinion, is he cooking?’
- (35) Kdo pa, po tvojem mnenju, jih je komu metal?
 who PA after your opinion them AUX who.DAT threw
 ‘Who, in your opinion, threw them for whom?’

Further, in some cases, *pa* and *že* can appear also inside the complex *wh*-phrase as in (36) and (37). Note that these examples do not constitute an argument for a *wh*-phrase-internal position of these discourse particles, as argued by Marušič, Mišmaš, Plesničar, et al. (2015), but they do suggest that these discourse particles are different syntactic elements from the clitics forming the clitic cluster.

- (36) Kaj že dobrega je Ana pojedla?
 what ŽE good AUX Ana ate
 ‘(Remind me) What was it that Ana ate that was good?’
- (37) Kdo pa od Petrovih prijateljev je prišel?
 who PA of Peter’s friends AUX came
 ‘Who of Peter’s friends was it that came?’
 (Marušič, Mišmaš, Plesničar, et al. 2015: (38))

And finally, clitics in Slovenian typically follow the first *wh*-phrase of a multiple *wh*-question, (38), while discourse particles can follow the first or second *wh*-phrase in a multiple *wh*-question with two *wh*-phrases, as examples in (27) show.

- (38) Kdo {jih je komu / *komu jih je} metal?
 who.NOM them AUX who.DAT who.DAT them AUX threw
 ‘Who threw them to whom?’

Given all that, regardless of our assumptions about clitics and the way clitic cluster is formed, discourse particles are syntactic elements that behave differently from clitics, so that we have no argument to posit they originate from the same

region of the clause or that their surface position is in any way dependent on the surface position of the other clitics. Discourse particles and clitics behave differently in *wh*-questions, thus it is not unexpected that they behave differently also in sluicing.¹⁴

4.2 Position of particles with respect to adverbs

An argument for the analysis that places discourse particles in the left periphery of a *wh*-question (and a sluice) comes from the behavior of adverbs. Specifically, the incompatibility of high sentential adverbs and sluicing in Slovenian. There are several suggestions with respect to the position of discourse particles. Zimmermann (2011) proposes that, perhaps universally, discourse particles tend to be realized in the periphery of the clause, but that some languages, such as German, should be exempt from this (i.e. in German discourse particles do not occur in the periphery but rather in the middlefield because they do not bare stress and unstressed elements cannot appear in the prefield in German).¹⁵ Facts from sluicing in Slovenian in fact suggest that discourse particles do appear higher than high sentential adverbs.

Specifically, high sentential adverbs in Cinque's (1999) hierarchy of adverbs express speakers' attitude and are in this respect similar to discourse particles which express speakers' attitude towards the utterance (Zimmermann 2011). However, while particles can appear in sluicing in Slovenian, high sentential adverbs

¹⁴ An anonymous reviewer suggested our data are fully compatible with a view where the only relevant criterium for clitic cluster formation is PF adjacency. If we further assume pronominal and auxiliary clitics are IP clitics whereas discourse particles are CP clitics (as they are located in the left periphery – in the CP area), then IP clitics and CP clitics would have been adjacent at PF in the absence of sluicing, but they would have never been syntactically adjacent or part of the same complex head. And when sluicing would elide the IP, IP clitics would get deleted whereas CP clitics would survive.

¹⁵ Ott & Struckmeier (2016), assuming that particles in German are located outside the *vP*, above sentential adverbs and negation, argue for a phonological approach to ellipsis in which material, which is in the background, is elided. This approach does not necessarily require movement. Crucially, Ott & Struckmeier (2016) show that in German sentential adverbs can appear in clausal ellipsis, contrary to Slovenian. This implies that while cases of sluicing with particles in Slovenian and German seem similar at first glance, the two are in fact different.

- (i) *Context*: 'Peter seems to have invited some people.'
 Und WEN {vermutlich / wahrscheinlich / anscheinend}
 and who presumably probably apparently
 'And who did he {presumably / probably / apparently} invite?'

(Ott & Struckmeier 2016: (15b))

cannot. This is shown below for the adverb *menda* ‘allegedly’ (but the same is true for *baje* in non-standard varieties of Slovenian) – a relatively high adverb that is compatible with wh-questions (that is, while seemingly higher adverbs such as *iskreno* ‘frankly’ can appear in wh-questions, they only receive subject oriented reading).

- (39) Kdo je menda plesal tango?
 who AUX allegedly danced tango
 ‘Who allegedly danced tango?’
- (40) a. Kdo že je menda plesal tango?
 who ŽE AUX allegedly danced tango
 ‘(Remind me) Who allegedly danced tango?’
- b. Kdo je že menda plesal tango?
 who AUX ŽE allegedly danced tango
 Available: ‘(Remind me) Who allegedly danced tango?’
 Available: ‘Who allegedly already danced tango?’
- c. Kdo je menda že plesal tango?
 who AUX allegedly ŽE danced tango
 ‘Who allegedly already danced tango?’
- (41) *Context*: ‘I’ve heard that there are some people here who danced tango.’
- a. Kdo že?
 who ŽE
 ‘(Remind me) Who?’
- b. *Kdo menda?
 who allegedly
 Intended: ‘Who, allegedly?’

First, the examples in (40) indicate that discourse particles precede high sentential adverbs in wh-questions in Slovenian, since *že* only gets the aspectual reading when it follows an adverb such as *menda* ‘allegedly’. More importantly, high sentential adverbs cannot appear in sluices in Slovenian, indicating that the material in the IP is elided.¹⁶ And since particles can appear in sluicing, this suggests that discourse particles in wh-questions in Slovenian are located above the IP.

¹⁶The apparent exception are contrastively focused adverbs as example (i) shows:

- (i) A: ‘I know Kekec danced for sure.’
 B: In kdo MENDA?
 and who allegedly
 ‘And who (danced) allegedly?’

5 Conclusion

Discourse particles in *wh*-questions in Slovenian have not been previously studied in Slovenian within the generative framework. In this paper we take instances of sluicing in which discourse particles *pa* and *že* appear as a starting point to explore discourse particles in *wh*-questions (and consequently sluicing) in Slovenian. We consider cases with *že* and *pa* in *wh*-questions and sluicing to show that discourse particles in Slovenian are not in complex *wh*-phrases nor are they a part of the clitic cluster or the IP. In fact, all of the properties we explore in this paper can be captured under the analysis proposed in Marušič, Mišmaš, Plesničar, et al. (2015), i.e. an analysis according to which discourse particles are located in the left periphery. Under this approach the projections hosting *wh*-phrases are not the only projections surviving sluicing in Slovenian, but rather what survives sluicing is a larger portion of the left periphery, hence also the grammaticality of topic and focus phrases in sluicing in Slovenian.

A natural question that follows (also pointed out by one of the anonymous reviewers) is why particles can survive IP-deletion in the left periphery, while auxiliaries like *did* and *do*, which end up in the left periphery following T-to-C movement, do not. The elements that we observe survive sluicing in the left periphery all originate from within the left periphery, while English auxiliaries do not; they are moved to the left periphery via T-to-C movement. One option to resolve this question is to simply state that the deletion of the IP in sluicing precedes T-to-C movement, as a result of which the auxiliaries never even reach the C head, where it could survive sluicing. As T-to-C movement is an instance of head-movement and as head-movement is occasionally argued to be an instance of PF movement, it actually follows quite naturally that elements like *did* cannot survive sluicing, as they do not occupy a left-peripheral position at the time when the IP is deleted.

Abbreviations

1	1st person	INS	instrumental
3	3rd person	NEG	negation
ACC	accusative	NOM	nominative
AUX	auxiliary verb	PL	plural
COND	conditional auxiliary	PTCL	discourse particle
DAT	dative	Q	question marker
GEN	genitive	REFL	reflexive pronoun
INF	infinitive	SG	singular

Acknowledgements

We are grateful to the editors and two anonymous reviewers of this volume for comments and suggestions. We acknowledge the financial support of ARRS Program P6-0382 (PI: Marušič).

References

- Bayer, Josef & Hans-Georg Obenauer. 2011. Discourse particles, clause structure, and question types. *The Linguistic Review* 28(4). 449–491. DOI:10.1515/tlir.2011.013
- Bošković, Željko. 2001. *On the nature of the syntax–phonology interface: Cliticization and related phenomena*. Amsterdam: Elsevier.
- Cheng, Lisa & Johan Rooryck. 2000. Licensing wh-in-situ. *Syntax* 3(1). 1–19. DOI:10.1111/1467-9612.00022
- Chung, Sandra, William Ladusaw & James McCloskey. 1995. Sluicing and logical form. *Natural Language Semantics* 3(3). 239–282. DOI:10.1007/BF01248819
- Chung, Sandra, William Ladusaw & James McCloskey. 2011. Sluicing (:) between structure and inference. In Rodrigo Gutiérrez-Bravo, Line Mikkelsen & Eric Potsdam (eds.), *Representing language: Essays in honor of Judith Aissen*, 31–50. <https://escholarship.org/uc/item/0vf4s9tk>.
- Cinque, Guglielmo. 1999. *Adverbs and functional heads: A cross-linguistics perspective*. Oxford: Oxford University Press.
- Golden, Marija & Milena Milojević Sheppard. 2000. Slovene pronominal clitics. In Frits H. Beukema & Marcel den Dikken (eds.), *Clitic phenomena in European languages*, 191–208. Amsterdam: John Benjamins.
- Gruet-Skrabalova, Hana. 2012. What kind of element is *že* in Czech? In Mojmir Dočekal & Markéta Ziková (eds.), *Slavic languages in formal grammar*, 33–47. Frankfurt am Main: Peter Lang. <https://hal.archives-ouvertes.fr/hal-00707064>.
- Hagstrom, Paul & Svetlana McCoy. 2003. Presuppositions, wh-questions, and discourse particles: Russian *že*. In Wayles Browne, Ji-Yung Kim, Barbara H. Partee & Robert A. Rothstein (eds.), *Formal Approaches to Slavic Linguistics 11: The Amherst Meeting 2002*, 201–218. Ann Arbor, MI: Michigan Slavic Publications.
- Marušič, Franc. 2008. Slovenian clitics have no unique syntactic position. In Andrei Antonenko, John Bailyn & Christina Bethin (eds.), *Formal Approaches to Slavic Linguistics 16: The Stony Brook Meeting 2007*, 266–281. Ann Arbor, MI: Michigan Slavic Publications.

- Marušič, Franc. 2016. Lecture notes for slovenian syntax. http://www.ung.si/~fmarusic/ung/sj_4/predavanje_19.pdf. University of Nova Gorica.
- Marušič, Franc, Petra Mišmaš, Vesna Plesničar, Tina Razboršek & Tina Šuligoj. 2015. On a potential counter-example to Merchant's Sluicing-COMP generalization. *Grazer linguistische Studien* 83(1). 47–65. <http://unipub.uni-graz.at/gls/periodical/titleinfo/1283369>.
- Marušič, Franc, Petra Mišmaš & Rok Žaucer. 2011. Some notes on the Slovenian second position conjunction *pa*. Presented at GLiP 7 in Wrocław. DOI:10.13140/RG.2.2.25791.76964
- Marušič, Franc & Rok Žaucer. 2017. Coordinate structure constraint: A-/A'-movement vs. clitic movement. In Markéta Ziková & Pavel Caha (eds.), *Proceedings of SinFonIJA 9.5* (Linguistica Brunensia), 1–19. Brno: Masaryk University Brno.
- McCoy, Svetlana. 2003. Unifying the meaning of multifunctional particles: The case of Russian *že*. *University of Pennsylvania Working Papers in Linguistics* 9(1). 123–135. <https://repository.upenn.edu/pwpl/vol9/iss1/10/>.
- Merchant, Jason. 2001. *The syntax of silence: Sluicing, islands, and the theory of ellipsis*. Oxford: Oxford University Press.
- Merchant, Jason. 2002. Swiping in Germanic. In C. Jan-Wouter Zwart & Werner Abraham (eds.), *Studies in comparative Germanic syntax*, 289–315. Amsterdam: John Benjamins. DOI:10.1075/la.53.18mer
- Merchant, Jason. 2006. Sluicing. In Martin Everaert & Henk van Riemsdijk (eds.), *The syntax companion*, 269–289. London: Blackwell.
- Mišmaš, Petra. 2016. The left periphery of multiple wh-questions in Slovenian. In Franc Marušič & Rok Žaucer (eds.), *Formal studies in slovenian syntax*, 193–220. Amsterdam & Philadelphia: John Benjamins.
- Mitrović, Moreno. 2016. A relative syntax and semantics for Slovenian. In Franc Marušič & Rok Žaucer (eds.), *Formal studies in Slovenian syntax*, 221–252. Amsterdam & Philadelphia: John Benjamins.
- Orešnik, Janez. 1985. O naslonskem nizu v knjižni slovenščini. *Jezik in slovstvo* 31(6). 213–215.
- Ott, Dennis & Volker Struckmeier. 2016. Deletion in clausal ellipsis: remnants in the middle field. *University of Pennsylvania Working Papers in Linguistics* 22(1). 25. <https://repository.upenn.edu/pwpl/vol22/iss1/25/>.
- Rizzi, Luigi. 1997. The fine structure of the left periphery. In Liliane Haegeman (ed.), *Elements of grammar*, 281–337. Dordrecht: Kluwer.

- Ross, John R. 1969. Guess who? In Robert I. Binnick (ed.), *Papers from the 5th regional meeting of the Chicago Linguistic Society*, 252–286. Chicago: Chicago Linguistic Society.
- Sauerland, Uli & Kazuko Yatsushiro. 2014. Remind-me presuppositions and speech-act decomposition: Japanese *kke* and German *wieder*. <http://ling.auf.net/lingbuzz/002005>. Manuscript, ZAS Berlin.
- Snoj, Marko. 2009. *Slovenski etimološki slovar*. Ljubljana: Modrijan.
- Toporišič, Jože. 2000. *Slovenska slovnica, 4th edition*. Maribor: Obzorja.
- Van Craenenbroeck, Jeroen. 2010. *The syntax of ellipsis: Evidence from Dutch dialects*. Oxford: Oxford University Press.
- Vicente, Luis. 2018. Sluicing and its subtypes. In Jeroen van Craenenbroeck & Tanja Temmerman (eds.), *The Oxford handbook of ellipsis*, 117–143. Oxford: Oxford University Press.
- Zimmermann, Malte. 2011. Discourse particles. In Klaus von Heusinger, Claudia Maienborn & Paul Portner (eds.), *Semantics: An international handbook of natural language meaning*, vol. 2, 2011–2038. Berlin: de Gruyter. DOI:10.1515/9783110255072.2012