

**Petra Mišmaš**

University of Nova Gorica

## Slovenian questions with short *wh*-movement and the low periphery<sup>1</sup>

V prispevku so obravnavana večkratna *k*-vprašanja s kratkim *k*-premikom v slovenščini. Ugotovljeno je, da se ta razlikujejo od vprašanj z večkratnim *k*-premikom, a da je obnašanje žariščnih, tematičnih in *k*-zvez v obeh tipih vprašanj primerljivo. Na podlagi tega je v okviru kartografskega pristopa predlagano, da so kratko premaknjene *k*-zveze po premiku locirane v *k*-projekcijah nizkega (notranjega) obrobja maloglagolske zveze. V tem obrobju sicer najdemo tudi tematične in žariščne projekcije.

The paper examines multiple *wh*-questions with short *wh*-movement in Slovenian. Although these questions differ from questions with multiple *wh*-fronting, the behavior of focus, topic, and *wh*-phrases is comparable in both types of questions. It is proposed, assuming the Cartographic approach, that short moved *wh*-phrases undergo movement to the *Wh*-projections in the low (clause internal) periphery of the *vP* phase. Topic and Focus projections are also located in this periphery.

### 1 Introduction

Slovenian is a multiple *wh*-fronting language. But a closer look at the data shows that three types of multiple *wh*-questions exist in Slovenian: (i) questions with multiple *wh*-fronting (MWF), in which all *wh*-phrases move to the clause initial positions, (1), (ii) questions with short *wh*-movement (SWM), i.e. questions in which at least one *wh*-phrase moves in the clause initial position while the rest are moved to clause internal positions, (2), and (iii) questions with *wh*-in-situ, in which at least one *wh*-phrase moves to the clause initial position and the rest stay in situ. Interestingly, as examples (1) to (3) show, none of these questions display Superiority effects and all of them receive the same interpretation.

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<sup>1</sup> This paper is based on parts of my Ph.D. dissertation *On the optionality of wh-fronting in a multiple wh-fronting language*. I am especially thankful to my advisor Franc Marušič - Lanko for his valuable feedback and would also like to thank the audience at the Olomouc Linguistics Colloquium (Olinco) 2016 and the anonymous reviewers for their comments. I acknowledge the financial support from the Slovenian Research Agency (program No. P6-0382).

- (1) a. Kaj je komu Lan dal? [*wh*-questions with MWF]  
 what.ACC AUX who.DAT Lan.NOM give  
 'What did Lan give to whom?'  
 b. Komu je kaj Lan dal?
- (2) a. Kaj je Lan komu dal? [*wh*-questions with SWM]  
 what.ACC AUX Lan.NOM who.DAT give  
 'What did Lan give to whom?'  
 b. Komu je Lan kaj dal?
- (3) a. Kaj je Lan dal komu? [*wh*-questions with *wh*-in-situ]  
 what.ACC AUX Lan.NOM give who.DAT  
 'What did Lan give to whom?'  
 b. Komu je Lan dal kaj?

The goal of this paper is to account for Slovenian questions with SWM. In order to do so, I will explore the parallel behavior of *wh*-phrases with respect to topic and focus phrases in both questions with MWF and SWM and argue that *wh*-phrases in both types of questions move to a periphery, in the sense of Rizzi (1997). And while the *wh*-phrases in multiple *wh*-fronting move to the left periphery, I will show that short moved *wh*-phrases move to the low periphery of the *v*P phase. Crucially, questions with SWM are considered as they give evidence for the existence of a low periphery in addition to the left periphery in Slovenian.

## 2 Multiple *wh*-questions with short *wh*-movement in Slovenian

Slovenian is a multiple *wh*-fronting language (Golden 1997) in which *wh*-questions with short *wh*-movement also exist, (2). In these, one *wh*-phrase undergoes movement to the clause initial position, while the second *wh*-phrase (the short moved *wh*-phrase) moves to some clause internal position, in which it follows the subject.<sup>2</sup> Such movement is possible for argument and adjunct *wh*-phrases in matrix and embedded questions and it can also be found with D-linked phrases. I show this in (2) for two argument *wh*-phrases and in (4) for an embedded question with adjunct *wh*-phrases.

- (4) a. Vprašal me je, kdaj je Lan kam šel.  
 asked I.DAT AUX when AUX Lan.NOM where went  
 'He asked me when Lan went where.'  
 b. Vprašal me je, kam je Lan kdaj šel.

<sup>2</sup> I am only focusing on examples in which the subject intervenes between two *wh*-phrases, but there are also cases in which the object does so. And while these cases behave just as cases with an intervening subject, I leave them aside due to space limitations.

Questions with SWM were previously also observed in other languages, e.g. in Polish (Dornisch 1998, Citko 2010). Crucially, in Slovenian and in Polish (Citko 2010) questions with SWM are parallel to the 'usual' multiple *wh*-questions in that they allow a pair list reading and do not obey Superiority. The question is then whether questions with SWM and MWF in fact need to be treated separately. Even more, as it was noted in Rudin (1988), in some languages, such as Serbo-Croatian or Slovenian (Golden 1997), *wh*-phrases in multiple *wh*-questions with MWF can be separated by non-*wh*-material (i.e. clitics, adverbs or parentheticals) and, as Mišmaš (2015, 2016) shows, *wh*-phrases in multiple *wh*-questions can be separated by topic and focused phrases, see section 3. This implies that the subject that appears between *wh*-phrases in questions with SWM is potentially a focused or a topic phrase. But, as I will show, this is not necessarily the case.

The following examples show that subjects (the nominative nominal phrases in examples below) are not necessarily topics. This is evident by the fact that an indefinite phrase can act as a subject of a multiple *wh*-question, as in example (5). Since topics are typically already given in the discourse, see Rizzi (1997), they are also typically specific/distinct. Because of this, I will assume that an indefinite phrase, such as *eni študentje* 'some students' in (5), cannot be a topic. However, as example (6) shows, a subject such as *ta študentka* 'this student' can also be discourse given (since Slovenian does not have a definite article I use an example with a demonstrative to express specific, given information), which means a subject can be a topic in Slovenian.

- (5) Kdaj so eni študentje kaj Evi prinesli?  
 when AUX some students.NOM what.ACC Eva.DAT bring  
 'When did some students bring what to Eva?'  
 (6) Kdaj je ta študentka kaj Evi prinesla?  
 when AUX this student.NOM what.ACC Eva.DAT bring  
 'When did this student bring what to Eva?'

Furthermore, while subject can be focused this is not necessarily the case. That is, focused phrases are marked with a special intonation in Slovenian, as LAN 'Lan' in (7), or appear clause finally (Živanović 2007: 229). Since subjects are not necessarily emphasized (there is no emphasis on *neki študentje* 'some students' in (5)), I will assume that these are not in the Focus projection of the left periphery. Still, there are examples in which the subject is focused, as (7) shows.

- (7) [Miha introduced Tim to Eva.]  
 Ne, komu je LAN koga predstavil?  
 no who.DAT AUX LAN.NOM who.ACC introduce  
 'No, who did LAN introduce to whom?'

These examples show that a subject can also be the topic or the focus of the sentence, but that the subject which is located between the two *wh*-phrases is not necessarily the topic or the focus. This means that *wh*-questions with SWM are not simply *wh*-questions with MWF in which fronted *wh*-phrases are separated by intervening material.

Additional evidence that multiple *wh*-questions with SWM are separate from questions with MWF comes from the interpretation of adverbs. Boškovič (1997) proposed an analysis of multiple *wh*-fronting in which he determined the position of *wh*-phrases, using as a test the interpretation of adverbs in Serbo-Croatian. Crucially, he shows that the adverb receives the sentential reading when in the TP and the manner reading when in the VP. As example (8) shows, adverbs in *wh*-questions with MWF receive both the sentential and the manner reading in Slovenian too. This is true regardless of the position of the adverb (it can follow the *wh*-phrases or appear between them). But when the subject intervenes between the fronted *wh*-phrases, (9), the adverb can only receive the manner reading.

- (8) a. Kdaj je komu pametno Miha pomagal? [both readings]  
 when AUX who.DAT wise Miha.NOM help  
 'When was it wise of Miha to help whom?'  
 'When did Miha help whom in a wise manner?'  
 b. Komu je kdaj Miha pametno pomagal? [both readings]  
 c. Kdaj je pametno komu Miha pomagal? [both readings]  
 d. Komu je pametno kdaj Miha pomagal? [both readings]
- (9) a. Kdaj je Miha komu pametno pomagal? [manner reading]  
 when AUX Miha.NOM who.DAT wise help  
 'When did Miha help whom in a wise manner?'  
 b. Komu je Miha kdaj pametno pomagal?

As these cases show, the position of the adverbs and the non-initial *wh*-phrases in the two types of questions is different. Adverbs will receive the sentential and the manner reading in questions with MWF (implying there are two positions for adverbs in these cases), while they will only receive manner reading in questions with SWM (showing that these adverbs only appear in the VP). We can therefore conclude that multiple *wh*-questions with SWM in fact need to be treated separately from questions with MWF.

And finally, we only find Distinctness effects in the sense of Richards (2010) in cases with MWF, see Mišmaš (2013), but not in cases with SWM. As examples with double accusatives show, a question with MWF, (10a), is less acceptable than (10b), which is an example of SWM.

- (10) a.? Katero teto katero disciplino Lan trenira?  
 [which aunt].ACC.F [which event].ACC.F Lan.NOM trains
- b. Katero teto Lan katero disciplino trenira?  
 [which aunt].ACC.F Lan.NOM [which event].ACC.F trains  
 'Which aunt is Lan training in which event?'

Since Distinctness effects only occur within a phase, see Richards (2010), we can take grammaticality of (10b) as evidence that the clause initial *wh*-phrase and the clause internal *wh*-phrase in a question with SWM are in different phases, while both *wh*-phrases are in one phase in (10a). Consequently, this means that *wh*-phrases in (10b) are in different peripheries, which again means that questions with SWM and MWF need to be treated separately.

However, several parallels between SWM and MWF exist and can be explored further. Specifically, SWM displays similar behavior to MWF in Slovenian with respect to non-*wh*-material that is able to appear in multiple *wh*-questions.

### 3 Multiple and short *wh*-movement – the parallels

As Mišmaš (2015, 2016) shows, topic and focus phrases appear in the left periphery of Slovenian multiple *wh*-questions with MWF. This is also true for multiple *wh*-questions with SWM. Based on this, I will compare the behavior of *wh*-, topic and focus phrases in the two types of questions in order to explore the structure of multiple *wh*-questions with SWM.

Focus phrases can appear in the left periphery, but we can also find them following the subject in Slovenian. As (11) shows, the word order of *wh*-phrases with respect to a focus phrase is free in the left periphery but with a notable exception – a *wh*-phrase needs to appear in a clause initial position for a question to receive a true *wh*-question reading, see Mišmaš (2015, 2016). The same holds for SWM, (12).<sup>3</sup> Note, however, that I am only giving one order of *wh*-phrases, despite their word order being free, cf. Mišmaš (2016).

- (11) a. Kje je komu LANA Eva predstavila?  
 where AUX who.DAT Lan.ACC Eva.NOM introduce  
 'Where did Eva introduce LAN to whom?'
- b. Kje je LANA komu Eva predstavila?
- c. #LANA je kje komu Eva predstavila?

<sup>3</sup> Examples in which a focused, e.g. (11c) or (12c), or a topic phrase, (13c) or (14c), appears in the clause initial position will receive either a *yes/no*- or an echo question reading, depending on the intonation, see Mišmaš (2015, 2016) for more.

- (12) a. Kje je Eva komu LANA predstavila?  
 where AUX Eva.NOM who.DAT Lan.ACC introduce  
 'Where did Eva introduce LAN to whom?'  
 b. Kje je Eva LANA komu predstavila?  
 c. #LANA je kje Eva komu predstavila?

Similarly, in both the left periphery of questions with MWF and in questions with SWM the word order of *wh*-phrases with respect to topic phrases (*tega virusa* 'this virus') is free, (13) and (14). Again, a *wh*-phrase needs to appear clause initially.

- (13) a. Kje je koga tega virusa Lan ozdravil?  
 where AUX who.ACC this virus.GEN Lan.NOM cure  
 'When did Lan cure whom of the virus?'  
 b. Kje je tega virusa koga Lan ozdravil?  
 c. #Tega virusa je kje koga Lan ozdravil?  
 (14) a. Kje je Lan koga tega virusa ozdravil?  
 when AUX Lan.NOM who.ACC this virus.GEN cure  
 'When did Lan cure whom of the virus?'  
 b. Kje je Lan tega virusa koga ozdravil?  
 c. #Tega virusa je kje Lan koga ozdravil?

In both types of questions there is no strict word order between topic, focus, and *wh*-phrases, as (15) and (16) show. Again, I give only some of the possible word orders.

- (15) a. Kje je kdaj temu virusu ROKA Lan izpostavil?  
 where AUX when this virus.DAT Rok.ACC Lan.NOM expose  
 'Where did Lan expose Rok to the virus where?'  
 b. Kje je temu virusu kdaj ROKA Lan izpostavil?  
 c. Kje je temu virusu ROKA kdaj Lan izpostavil?  
 d. Kje je ROKA temu virusu kdaj Lan izpostavil?  
 e. #Temu virusu je ROKA kje kdaj Lan izpostavil?  
 f. #ROKA je temu virusu kje kdaj Lan izpostavil?  
 (16) a. Kje je Lan kdaj temu virusu ROKA izpostavil?  
 where AUX Lan.NOM when this virus.DAT Rok.ACC expose  
 'When did Lan expose ROKA to this virus?'  
 b. Kje je Lan temu virusu kdaj ROK izpostavil?  
 c. Kje je Lan ROKA temu virusu kdaj izpostavil?  
 d. Kje je Lan ROKA temu virusu kdaj izpostavil?  
 e. #Temu virusu je Lan ROKA kje kdaj izpostavil?  
 f. #ROKA je Lan temu virusu kje kdaj izpostavil?

And finally, more than two *wh*-phrases can be fronted to the left periphery, their word order being free (I only give a few of the possible word orders). In a question with SWM and three *wh*-phrases this means that two *wh*-phrases can be moved to the clause internal position, (18), as one *wh*-phrase needs to appear clause initially.

- (17) a. Kaj je komu kdaj Lan poslal?  
           what.ACC AUX who.DAT when Lan.NOM send  
           'What did Lan send to whom when?'  
       b. Kaj je kdaj komu Lan poslal?  
       c. Kdaj je komu kaj Lan poslal?  
       d. Komu je kaj kdaj Lan poslal?  
       e. #Je komu kaj kdaj Lan poslal?
- (18) a. Kaj je Lan komu kdaj poslal?  
           what.ACC AUX Lan.NOM who.DAT when send  
           'What did Lan send when to whom?'  
       b. Kaj je Lan kdaj komu poslal?  
       c. Kdaj je Lan komu kaj poslal?  
       d. Komu je Lan kaj kdaj poslal?  
       e. #Je Lan kaj kdaj komu poslal?

A couple of things become apparent. First, in all multiple *wh*-questions a *wh*-phrase needs to appear in the clause initial position. And second, non-initial *wh*-phrases in questions with MWF and questions with SWM behave uniformly with respect to focus and topic phrases in that they can appear in any word order possible. And yet the data presented in section 2 indicates that these questions need to be treated separately. Based on this I propose that while *wh*-phrases move in a parallel manner questions with MWF and questions with SWM, they move to separate positions.

#### 4 Short *wh*-movement and the low periphery

Citko (2010) proposed an analysis of short *wh*-movement in Polish building on the fact that the lower *wh*-phrase in short *wh*-movement moves above negation and adverbs such as *często* 'often'. This is also the case with Slovenian, as (20) shows for the adverb *pogosto* 'often'.

- (19) a. Co Ewa komu często pokazuje? Polish  
           what.ACC Ewa.NOM who.DAT often shows  
           'What does Ewa often show to whom?' (Citko 2010: (19))  
       b. ?Co Ewa często komu pokazuje?

- (20) a. Kaj           Eva           komu       pogosto   kuha?  
           what        Eva           who.DAT   often       cooks  
           'What does Eva often cook for whom?'  
       b. Komu Eva kaj pogosto kuha

Based on this and the assumption that the negation marks the edge of  $\nu$ P, Citko (2010) concludes that the lower *wh*-phrase ends up above  $\nu$ P, specifically, Citko proposes a clause internal Focus projection between the TP and the  $\nu$ P and argues that the short moved *wh*-phrases moves to this clause internal Focus projection in Polish, cf. Dornisch (1998) for a different analysis.

I take Citko's proposal as a starting point. But considering the data that shows that we can also find other non-*wh*-material in a clause internal position, I will argue for a more fully developed low periphery in Slovenian (see section 2 for arguments against short *wh*-movement to the left periphery).

#### 4.1 The Low Periphery

In Italian, in addition to the clause external/left periphery in the sense of Rizzi (1997), a clause internal periphery (referred to also as the low IP area or low periphery of the verb phrase) also exists, as Belletti (2004) shows, see also Belletti (2001) and Poletto (2006), a.o. As Belletti (2004) notes, this structural parallel is related to Chomsky's (2000) observation that the CP and the VP are both (strong) phases (in Chomsky (2001), the two strong phases are  $\nu$ P and CP), which means that both are units of the derivation that are to some extent independent. In fact, Chomsky (2008) observes that C is a 'shorthand' for the left periphery, in the sense of Rizzi (1997). It then seems that the existence of a periphery is closely related to the notion of a phase, that is, a phase is 'closed off' with a periphery.

The low periphery is similar to the left periphery as both host several functional projections – just as the Topic and the Focus projections are located in the left periphery (Rizzi 1997), a Focus projection can be surrounded by clause internal Topic positions in the low periphery, as Belletti (2004) argues for modern Italian and Poletto (2006) for old Italian. Still, despite some resemblances, the two peripheries are not completely alike as positions in the left and the low periphery are associated with different interpretations in Italian (Belletti 2004). Furthermore, it is also not clear whether the hierarchy of functional projections is the same in both peripheries. For example, it has been noted that Force is only projected in (some) CPs (Bianchi 2014) and a *Wh*-projection is said not to be always available in a clause internal periphery. Or put differently, *wh*-phrases can be moved to a clause internal position in some languages, as Jayaseelan (2001) shows for Malayalam, while this is not the case in French, see Shlonsky (2012).



In what follows, I am assuming the cartographic approach and the Slovenian data in section 3 to discuss the structure of the peripheries in Slovenian. I focus on the Topic-Focus system, while I leave the Force-Finiteness system aside.

#### 4.2 The peripheries in Slovenian - the structure

Given the data in section 3, the two peripheries for *wh*-questions in Slovenian can be represented as shown in (21) for the left and (22) for the low periphery. In these structures the projections in brackets are projected only when needed and the stars indicate that these projections are interchangeable when present in the structure (see data in section 3).

- (21) Interrogative...(Topic\*)...(Focus\*)...(Wh-\*)... (Mišmaš 2016: (56))  
 (22) ...(Topic\*)...(Focus\*)...(Wh-\*)...

These structures incorporate the fact that the order of phrases in the peripheries is free and that not all phrases have to appear in a *wh*-question (with the exception of the obligatory clause initial *wh*-phrase, see below). Additionally, all the starred projections can be recursive in Slovenian, which I will show below.

While (21) shows that the topic, focus, and *wh*-phrases move to the Topic, Focus and a *Wh*-position, respectively, I will not be considering the Interrogative projection of the left periphery separately here. But in short, as shown in Mišmaš (2015, 2016) the clause initial *wh*-phrase moves to the Interrogative projection in *wh*-questions with multiple *wh*-fronting. Since a clause initial *wh*-phrase is also obligatory in questions with short movement, we can assume that the left periphery in these questions also includes the Interrogative projection. Following Mišmaš (2015, 2016), this projection is responsible for Clause Typing, which can then only happen in the left periphery.

With the structures above in mind, the motivation for the movement needs to be discussed. One of the guiding principles of Cartography is the »one (morphosyntactic) property – one feature – one head« guideline (Cinque & Rizzi 2008: 50). This, together with the assumption that all the features on the heads that are contained in the syntactic structure are interpretable, see Cinque & Rizzi (2008), leads to the structure of the low and left periphery in which, in addition to an EPP-feature on each head, *Wh*<sup>0</sup> hosts the interpretable *wh*-feature, Focus<sup>0</sup> the interpretable focus feature and Topic<sup>0</sup> the interpretable topic feature. In turn, the *wh*-, focus and topic phrases carry an uninterpretable *wh*-, focus and topic feature, respectively. This

naturally means that focused phrases will move to the Focus projection, topic phrases to Topic projection and *wh*-phrases to *Wh*-projection.<sup>4</sup>

As it was indicated in (21) and (22), the *Wh*-, Topic, and Focus projections and are only projected when needed and are interchangeable, but it needs to be emphasized, that these projections can be recursive, as examples with two topic phrases, (23), two contrastive focused phrases, (24), and three *wh*-phrases, (17) and (18), indicate.

- (23) Ta punca temu fantu pomaga.  
 this girl.NOM this boy.ACC helps  
 'This girl is helping this boy.'
- (24) [Lan baked a cake for Eva yesterday.]  
 Ne, METKI je KRUH pekel.  
 no Metka.DAT AUX bread.ACC bake  
 'No, he was baking BREAD for METKA.'

These examples indicate that a functional projection in Slovenian peripheries can be recursive and the data in section 3 indicates that the same functional projections in Slovenian can appear either in the low or the left periphery. This is potentially problematic as there are conflicting evidence with respect to these issues in other languages. That is, while Rizzi (1997) proposes that Topic in Italian is essentially recursive and can appear either before or after Focus, Beninca' and Polleto (2004) claim that rather each Topic (or a Focus projection) is related to different semantic properties and can only host one phrase, e.g. in Italian the Focus field is divided between a position for informational focus and two separate (and different) contrastive focus position – one for objects or adverbs and one for circumstantial or quantificational adverbs. Furthermore, Belletti (2001, 2004) argues that focus projections in the left and the low periphery in Italian are associated with both different intonation and interpretation (but notes that topic interpretation potentially does not differ between the two peripheries (Belletti 2004, fn. 4)), while Brunetti (2004) claims that

<sup>4</sup> However, it should be noted that multiple *wh*-questions in Slovenian display no Superiority effects (in matrix or embedded questions) and can typically receive both single pair and pair list readings. Following Bošković (2002) this means that *wh*-phrases undergo focus movement to the IP in Slovenian. Despite this, I do not claim that *wh*-phrases move to the Focus projection, as *wh*- and focus phrases display different behavior. Most notably, a *wh*-phrase obligatorily appears in a clause initial position in *wh*-questions, as shown in examples such as (11c) and (12c). This suggests that *wh*-phrases need to be treated differently from focused phrases (if not, these examples would get a true question reading). And while I have assumed that the clause initial *wh*-phrase moves to a separate projection, I also assume that all *wh*-phrases enter the derivation with the same *wh*-feature, which means that movement to the Interrogative and the *Wh*-projection is *wh*-movement (Mišmaš 2015, 2016). See Mišmaš (2015) for other arguments against a focus analysis of multiple *wh*-fronting in Slovenian.

the interpretative distinction is not as sharp as described in Belletti (2001), e.g. a contrastive focus in Italian can be expressed in different positions.

We can take the approach under which the position and function (i.e. interpretation) are in a one-to-one relation and which means that recursion of functional projections is prohibited, i.e. the approach assumed in Beninca' and Polleto (2004: 52), as the strong cartographic view. However, at least for Slovenian, there is not enough evidence to support this view. In Slovenian, based on the data here,<sup>5</sup> we cannot observe contrasts between Focus projections. And since we can find examples with two contrastively focused objects, (24), which are separated by non-focused material, we can conclude that they do not form a cluster and undergo movement to a single projection. Same goes for *wh*-questions with three *wh*-phrases, in which the first *wh*-phrase moves to the Interrogative projection, while the remaining two move to *Wh*-projections. With such *wh*-questions we can again show that non-initial *wh*-phrases do not move to a single *Wh*-projection as the two *wh*-phrases can be separated by non-*wh*-material, see section 2 and 3. And while in such cases movement to the clause initial *wh*-phrase is related to Clause Typing, there is no difference in interpretation of the *wh*-phrases as all three *wh*-phrases simply receive an interrogative reading.

Furthermore, Slovenian data indicates that at least some projections can be available in both the left and the low periphery. Most importantly for the purposes of this paper, this holds for *Wh*-projections as (non-initial) *wh*-phrases in a multiple *wh*-question can appear in the left or the low periphery (but this also seem to hold for Topic and Focus projections, however, further research of topic and focus phrases is required in Slovenian if we want to get a clearer picture of peripheries in Slovenian). Crucially, *wh*-phrases will be interpreted simply as interrogative phrases in both peripheries (indicating that positions in the left and the low periphery are not necessary associated with different interpretations in Slovenian) and the *wh*-questions will receive the same interpretation, regardless of the periphery in which of the *Wh*-projection appears. Even more, there is also evidence for a *Wh*-projection in the periphery of the DP.

We have established a parallelism between the low and the left periphery in Slovenian, which are related to the *v*P and the CP phase, respectively. And since DP is a phase, see Chomsky (2001) and the references therein, we can then predict that we will find a periphery in Slovenian DPs too, as Giusti (2005) shows for Romanian. As Mišmaš (2014) shows, this is in fact the case and a DP in Slovenian can host a *wh*- and a focus phrase (e.g. *kakšen NEMŠKI Majin avto* 'what kind of Maja's German car'). But as Mišmaš (2014) shows, the order of these phrases seems to be rigid in the DP. Importantly, this means that we can find similar phenomena (and

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<sup>5</sup> However, I do want to emphasize that topic and focus were not at the center of this paper and that much more research of Slovenian topic and focus is needed, which will perhaps show that the observations about Topic and Focus projections made here were premature.

the associated *Wh*- and Focus projections) at all three phase edges. But even though Slovenian CP, *v*P and DP peripheries are similar, they are not completely alike, which again means that more work is needed to establish to what extent the peripheries in Slovenian are alike or different and why.

## 5 Conclusion

While the goal of this paper was to account for multiple *wh*-questions with short *wh*-movement as a separate type of multiple *wh*-questions in Slovenian, the additional purpose was to offer initial insight into the Slovenian low periphery, which has, to the best of my knowledge, previously not been researched. Using the two types of multiple *wh*-questions and the parallels in the behavior of focus, topic, and *wh*-phrases, it was proposed that short movement of *wh*-phrases is *wh*-movement to the *Wh*-projection of the low, clause internal, periphery which also hosts the clause internal Focus and Topic projections, the word order of all projections being free. However, this is a very general description of the low periphery and more work will be required in the future in order to better understand its structure and how similar low periphery is to the left periphery in Slovenian (and in general).

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## Vprašanja s kratkim *k*-premikom in nizko obrobje v slovenščini

V prispevku je pokazano, da so večkratna *k*-vprašanja s kratkim *k*-premikom (tj. vprašanja, v katerih se ena *k*-zveza premakne na prvo mesto v stavku, medtem ko se preostale *k*-zveze premaknejo na položaj znotraj stavka za osebkom) v slovenščini samostojen tip večkratnih *k*-vprašanj. Vprašanja s kratkim *k*-premikom lahko razumemo kot dokaz za obstoj notranjega (nizkega) obrobja v slovenščini, pri čemer se kratko premaknjena *k*-zveza premakne v *k*-projekcijo nizkega obrobja. To obrobje pa lahko gosti tudi tematično in žariščno projekcijo.

Kot je pokazano v razdelku 1, je slovenščina jezik, v katerem obstajajo tako vprašanja z večkratnim *k*-premikom kot tudi drugi tipi vprašanj, ki prejmejo enako interpretacijo. Pri tem Golden (1997) pokaže, da so lahko v vprašanjih z večkratnim *k*-premikom premaknjene *k*-zveze v slovenščini ločene z drugim gradivom (npr. z naslonkami), Mišmaš (2016) pa trdi, da so lahko ločene tudi s tematičnimi ali žariščnimi zvezami. V tem prispevku je pokazano, da v primerih s kratkim *k*-premikom ne gre zgolj za vprašanja z večkratnim *k*-premikom, v katerih so *k*-zveze ločene s tematiziranim ali žariščnim osebkom. Na podlagi interpretaciji prislovov je sledeč Boškoviću (1997) pokazano, da se neprve *k*-zveze v vprašanjih z večkratnim *k*-premikom in s kratkim *k*-premikom ne premaknejo na en položaj znotraj levega stavčnega obrobja. Kljub razlikam med vprašanji pa je v razdelku 3 ugotovljeno, da se *k*-zveze v obeh tipih obnašajo podobno glede na tematične in žariščne zveze, saj se te zveze lahko pojavijo v katerem koli zaporedju.

Na podlagi podatkov v razdelku 2 in 3 je predlagano, da se neprva *k*-zveza v večkratnih *k*-vprašanjih s kratkim *k*-premikom premakne v *k*-projekcijo v nizkem obrobju, to pa lahko hkrati gosti tudi žariščene zveze v žariščni projekciji in tematične zveze v tematični projekciji. Te projekcije v slovenščini niso obvezne, lahko se pojavijo v katerem koli vrstnem redu in so ponovljive. Da so ponovljive, je še posebej pomembno zaradi obstoja večkratnih *k*-vprašanj z večkratnim *k*-premikom, tj. pojaviti se mora dovolj *k*-projekcij, da so te zmožne gostiti vse premaknjene *k*-zveze.

Večkratna *k*-vprašanja s kratkim *k*-premikom dajejo prvi vpogled v strukturo nizkega obrobja, vendar bo treba opraviti več raziskav, da bi boljše razumeli zgradbo

tega obrobja ter do katere mere je nizko obrobje podobno drugim obrobjem v slovenščini in nasploh oz. v kolikšni meri se od njih razlikuje.

## Slovenian questions with short *wh*-movement and the low periphery

In this paper I establish multiple *wh*-questions with short *wh*-movement, i.e. questions in which at least one *wh*-phrase moves to the clause initial position while the rest move to some clause internal position, following the subject, as a separate type of multiple *wh*-questions in Slovenian. Crucially, questions with short *wh*-movement can be taken as evidence for the existence of a clause internal, low periphery in Slovenian, and I argue that the short moved *wh*-phrase undergoes *wh*-movement to the *Wh*-projection of the low periphery. Furthermore, I show that the low periphery in Slovenian also hosts the Topic and the Focus projection.

Slovenian is a language with multiple *wh*-fronting, but other types of multiple *wh*-questions also exist in Slovenian, as I show in section 1, all of which receive the same interpretation. And while it was shown by Golden (1997) that the fronted *wh*-phrases in questions with multiple *wh*-fronting can be separated by non-*wh*-material, such as parentheticals or clitics, and it was shown by Mišmaš (2016) that topic and focus phrases can appear between fronted *wh*-phrases, this paper shows that the subject that appears between the fronted *wh*-phrases is not necessarily a subject or a focus. Based on the interpretation of adverbs, following Bošković (1997), I show that the non-initial *wh*-phrase in questions with multiple *wh*-fronting and short *wh*-movement does not move to the same position in the left periphery. But despite the differences between the two types of questions, section 3 shows that the *wh*-phrases in both questions with multiple *wh*-fronting and short *wh*-movement display parallel behavior with respect to topic and focus phrases in that these phrases can appear in any word order possible.

Based on the data in sections 2 and 3, it is proposed that the non-initial *wh*-phrase in multiple *wh*-questions with short *wh*-movement moves to the *Wh*-projection in the low periphery, which can also host focus phrases in the Focus and topic phrases in the Topic projection. These projections are not obligatory in Slovenian, they can appear in any order possible and can be repeated in the structure. The former is especially important in light of the existence of multiple *wh*-questions, i.e. there must exist the option of projecting enough *Wh*-projections to host all the fronted (non-initial) *wh*-phrases.

Multiple *wh*-questions with short *wh*-movement offer an initial insight into the structure of the low periphery, however, more work is needed in order to better understand its structure and to establish to which extend the low periphery is similar/different from the remaining peripheries in Slovenian and in general.