

The syntax of wh-phrases and narrow foci in Georgian

Lena Borise

Abstract

In this paper, I provide an account of the syntactic properties of narrow focus and wh-phrases in Georgian (Kartvelian). Like many verb-final languages, Georgian has a preverbal focus position, which houses wh-phrases and narrow foci. Despite appearances, immediately preverbal placement of wh-phrases and narrow foci does not have the same underlying syntax. The evidence for this comes from standard syntactic tests, as well as some language-specific evidence. In particular, I show that, in Georgian, neg-words can serve as a tool for determining the structural positions of other constituents, and narrow foci and wh-phrases have different distributional properties with respect to neg-words. Based on this, I demonstrate that wh-phrases in Georgian undergo A-bar movement to the specifier of a dedicated projection, accompanied by verb raising. In contrast, preverbal narrow foci remain in situ, while the material that would otherwise intervene between the narrow focus and the verb undergoes displacement. Taken together, these distributional generalizations show that, in a single language, more than one syntactic strategy may be used in order to achieve linear adjacency between narrow focus/wh-phrase and the verb. Georgian also allows for postverbal placement of narrow foci, which, as I show, is derived via right-adjunction.

Keywords: Georgian, focus, wh-phrases, n(eg)-words, preverbal focus, postverbal focus

1. Introduction

This paper investigates the syntactic properties of narrow focus and wh-expressions in Georgian, a Kartvelian language of the Caucasus. The immediately preverbal position (henceforth IPrP) in Georgian, like in many other OV languages (Kim 1988; Kidwai 1999; van der Wal 2012, a.o.), is where narrow foci and wh-phrases are found, as shown in (1):¹

- (1) A: *Gušin dila-s bebia ra-s a-lag-eb-d-a?*²
yesterday morning-DAT grandma.NOM what-DAT VER-clean-SF-SM-IPFV.3SG
'What did grandma clean yesterday morning?'
- B: *Gušin dila-s bebia samzareulo-s a-lag-eb-d-a.*
yesterday morning-DAT grandma.NOM kitchen-DAT VER-clean-SF-SM-IPFV.3SG
'Grandma cleaned THE KITCHEN yesterday morning.'

Additionally, in contrast to many other verb-final languages, Georgian also allows for postverbal placement of narrow foci, which suggests a more complex distribution of focus, and a typologically less common one. This is shown in (2), which is intended to serve as another reply to the question in (1):

- (2) *Gušin dila-s bebia a-lag-eb-d-a samzareulo-s.*
yesterday morning-DAT grandma.NOM VER-clean-SF-SM-IPFV.3SG kitchen-DAT
'Grandma cleaned THE KITCHEN yesterday morning.'

Following Rooth's (1985; 1992; 1996) Alternative Semantics, focus here is understood as indicating "the presence of alternatives that are relevant for the interpretation of linguistic expressions" (Krifka 2008: 247). This includes new

¹ The position immediately after the verb is reserved for focal items in some VO languages, such as, notably, Bantu (Hyman 1979; Watters 1979; Cheng & Downing 2012) and Chadic (Tuller 1992), and is known in the Bantuist tradition as the position Immediately After the Verb (IAV). The term IAV is not adopted here to refer to Georgian postverbal foci since postverbal foci in Georgian and Bantu have different syntactic properties: as is shown in Section 7.2, Georgian postverbal foci result from right-adjunction, while Bantu postverbal foci are found in situ (cf. e.g. Cheng & Downing 2012 for Zulu). Adopting the same descriptive term for both focus constructions would have implied more syntactic similarities between the two than there are.

² Glosses follow the Leipzig glossing conventions and include the following additions: AOR – aorist, CONJ – conjugation marker, EMPH – emphatic, EV – epenthetic vowel, MOD – modal, OPT – optative, PRV – preverb, SF – stem formant, SM – stem marker, TS – thematic suffix, VER – version marker.

Unless indicated otherwise, the data used here comes from own fieldwork in Georgia (June-July 2016, September 2018) and consultant work with Georgian speakers residing in the US (2014-2019).

information foci, contrastive foci, and those modified by focus-inducing particles *even* and *only*. According to the same definition, wh-expressions also constitute a type of focus, since they act as substitutes for sets of individuals for which the proposition is true.³ Consequently, it is not surprising that in many languages with preverbal narrow foci, wh-phrases are similarly found in the IPrP (cf. Primus 2001).

There are two main analytical approaches to deriving adjacency between the verb and an element in IPrP: (i) via a Spec-Head configuration and (ii) via displacement of the intervening material.⁴ According to the Spec-Head approach, the focal/wh-element undergoes (A-bar) movement to a specifier of a particular projection XP, and the verb moves to X^0 , thereby creating adjacency.⁵ In Section 6, I show that a Spec-Head analysis best accounts for the IPrP placement of wh-phrases in Georgian, based on evidence from island effects and weak crossover facts. According to the other approach, focus-verb adjacency may be derived in situ, via displacement of the intervening material.⁶ In this case, the verb and the focused constituent are the only elements that remain in situ, with the focal/wh-item occupying the IPrP by virtue of the fact that the verb is the rightmost element in a verb-final clause.⁷ In Section 7.1, I show that preverbal narrow foci in Georgian remain in situ, while would-be interveners evacuate to the left or right periphery. As this paper shows, therefore, the two approaches are not mutually exclusive. Georgian, then, is akin to Basque, where two strategies are similarly needed in order to account for the full range of the preverbal facts too (Elordieta 2001).

One of the key diagnostics for the structural positions of wh-phrases and narrow foci proposed in this paper is their relative positioning with respect to n(eg)-words. In Section 4, I show that neg-words in Georgian cannot displace into the left or right periphery. This is not unexpected from the point of view of information structure (IS): such displacement into the peripheries is typical of topical or given material in Georgian, while neg-words are non-referential, which means that they resist topicalization. The fact that neg-words resist topicalization, coupled with the fact that Georgian does not have A-movement for case assignment, means that neg-words in Georgian are necessarily found in situ. At the same time, like wh-phrases and preverbal narrow foci, neg-words in Georgian obligatorily appear in the IPrP.⁸ Importantly, this is only true in broad focus conditions, while in narrow foci and wh-questions neg-words can abandon their IPrP requirement in favor of the focused constituent/wh-phrase. They do so differently in the two contexts though: in wh-phrases, neg-words can only occur postverbally; in narrow focus contexts, neg-words can either precede or follow the focus+verb complex, depending on the theta roles of the neg-word and the narrow focus. Given that neg-words cannot leave their base position, these distributional facts provide evidence about the structural positions of wh-phrases and narrow foci.

Postverbal foci do not commonly occur in verb-final languages; the known cases described have also been subject to different analyses. Postverbal foci in Basque have been derived in the same way as preverbal ones (a Spec-Head configuration), but accompanied by remnant movement of post-focal clausal material to the left periphery (Ortiz de Urbina 2002). In contrast, postverbal foci in Old High German and Early New High German have been derived via right-adjunction (Bies 1996; Fuß 2018; Hinterhölzl & Petrova 2018). In Section 7.2, I show that postverbal in Georgian, too, are derived via the latter mechanism, which is also supported by the relative distribution of postverbal foci and neg-words.

This paper is structured as follows. Section 2 highlights the properties of Georgian grammar that are relevant for the argument. Section 3 introduces the distributional properties of wh-phrases. Section 4 does the same for narrow foci, both preverbal and postverbal. Section 5 is dedicated to the properties of neg-words in Georgian. In order to set

³ Cf. Dik (1997: 331) on ‘questioning focus’, and Romero (1998) and Eckardt (2007) on focal interpretation of wh-phrases, though cf. also Erteschik-Shir (1986), Aboh (2007), Cable (2008), a.o., for a view that wh-phrases may but do not necessarily carry focus.

⁴ The term ‘displacement’ is used here as an umbrella term and includes both syntactic movement to the left and right peripheries and base-generation of material in the peripheral positions.

⁵ See account of preverbal focus/wh-phrase placement in Kashmiri (Bhatt 1999: 85), Persian (Karimi 2008; Toosarvandani 2008), and Malayalam (Jayaseelan 2001), among others.

⁶ This displacement may be driven by the information-structural status of the interveners (usually topics), in which case the resulting adjacency of the narrowly focused constituent/wh-phrase and the verb is a by-product of an independent process (cf. Şener 2010 for Turkish). Alternatively, it may be driven by the explicit need for the narrowly focused constituent/wh-phrase to surface in the preverbal position, e.g. in order to carry Nuclear Stress (cf. Arregi 2002 for Basque; Cheng & Downing 2012 for Zulu).

⁷ Such an analysis has been advanced, for example, for Hindi (Mahajan 1990; Dayal 1996, a.o.) and Turkish (Şener 2010).

⁸ This is not unexpected from the point of view of Roothian focus semantics, since neg-words also refer to contextual alternatives: they eliminate all of them (Drubig 2003).

the scene for the upcoming argument, it first outlines the general properties of topicalized constituents in Georgian (5.1) and then introduces the distributional (5.2) and structural (5.3) properties of neg-words. Sections 6 and 7 provide argumentation about the structural positions of wh-phrases and narrow foci (preverbal, 7.1, and postverbal, 7.2), respectively, and show that they do not have the same underlying syntax. Section 8 discusses the behavior of wh-phrases and narrow foci in more complex constructions (clauses with participial complements, nominalizations, and certain modals). Section 9 concludes. Finally, Appendix 1 provides some facts pertaining to the syntactic status of topicalized constituents.

2. Georgian grammar

In contrast with prototypical head-final languages such as Korean and Japanese, Georgian is not consistently head-final. On the one hand, postpositional phrases, genitive + noun combinations, participial relative clauses, small clauses, object+verb idioms, and finite+nonfinite verb constructions are clearly head-final. On the other hand, AuxP and CP exhibit head-initial properties, which means that the clausal spine in Georgian above the VP is a head-initial structure. In particular, all complementizers in Georgian are initial or second-position, and the modal *unda* ‘have to, must’, in contrast with finite verbs, can only be found clause-medially and not clause-finally, contrary to what would be expected in a strictly head-final language.

At the same time, there is considerable flexibility with respect to the order of the elements within the VP, with both VO and OV widely attested. Both word orders are frequently found in discourse and can be found in all-new contexts (Tuite 1998: 42). Most authors agree that the OV order is underlying (Pochkhua 1962; Nash 1995; McGinnis 1997a; 1997b; Harris 2000: 141; Boeder 2005: 64; Skopeteas & Fanselow 2010; Aronson 1990),⁹ The same view is adopted here.

This, however, raises questions about the syntactic underpinnings of the frequently attested VO. Both OV and VO in Georgian are neutral from the point of view of information structure. The preverbal and postverbal positions for the direct object (DO) do not differ in their definiteness or specificity, either. The fact that VO orders are possible as neutral contexts points to their syntactic organization: as argued in Neeleman (2015), neutral word orders are derived by X⁰-movement (which is always leftward), as opposed to phrasal movement to the right. Accordingly, I take Georgian VO to be derived by short V-to-v movement of the verb (as opposed to displacement of the DO to the right). This is in line with Skopeteas & Fanselow (2010), who also derive neutral Georgian VO by verb raising, and emphasize that this head-movement is semantically vacuous. The availability of such movement means that there is a suitable head position on the left side of the clausal spine for the verb to move to, which fits well with the analysis of the clausal spine above the VP as head-initial. Furthermore, deriving VO via verb movement means that the two object positions in OV and VO orders are one and the same syntactic position, which explains lack of interpretational differences between the two. This hypothesis is further supported by the fact that both preverbal and postverbal DOs exhibit a strong preference for narrow/surface scope of the DO with respect to the material in the left periphery.

There is evidence that the verb in Georgian does not raise from its position within the VP in OV clauses (vP in VO clauses). The tests commonly used for determining the position of the verb are based on the relative scope of verbal negation and elements such as NPIs and quantifiers associated with verbal arguments (Han, Lidz & Musolino 2007; Simpson & Syed 2014, a.o.). The condition that they rely on is that the exponent of negation and the verb form a constituent and, were the verb to move, the exponent of negation would move too, either after cliticizing to the verb or after the two elements combining via head movement. This condition obtains in Georgian, where the exponent of verbal negation is a proclitic on the verb and cannot be separated from it by any other material.

Consider first the interaction of a quantified subject and a negated verb. There are two possible readings that such a clause can have, depending on the relative scope of the two elements: NUM > NEG, NEG > NUM. The availability of the NEG > NUM reading would be indicative of the negation + verb complex (covertly) raising past the subject to a higher position, while the availability NUM > NEG would indicate lack of such movement. In Georgian, a quantified subject scopes over verbal negation, which suggests that negation is generated and interpreted below the position of the subject and, consequently, that the negation + verb complex does not raise from its low position past it. In particular, (3) can be used to describe a very bright group of students in which everyone knows the answer, save for

⁹ Though Amiridze (2006) takes (mono)transitive verbal projections in Georgian to be head-initial, Tschenkeli (1958: 12) asserts the same for all transitive verbal projections, and Harris (1981: 22) and Anderson (1984: 186) take the underlying order of the verb and object in Georgian to be unspecified.

one or two (=fewer than three) students (NUM > NEG). On the other hand, it cannot be used to describe a situation in which it is not the case that fewer than three students know the answer (*NEG > NUM).

- (3) *Sam-ze nak'leb st'udent'-s ar e-codin-eb-a es p'asuxi.*
 three-on less student-DAT NEG ver-know-SF-FUT.3SG DEM answer
 'Fewer than three students will not know the answer.'
 NOT: 'It won't be the case that fewer than three students will know the answer.'
 (NUM > NEG; *NEG > NUM)

Similarly, the position of the negation + verb complex can be diagnosed by using a verbal argument that contains disjunction, since a disjoint reading is only predicted to be felicitous if it scopes over negation (or > NEG), whereas a conjoint reading should be available if the disjunction scopes below negation (NEG > or) (Shibata 2015), as shown in (4):

- (4) *Mary doesn't like wine or beer.* (...so, we will have to get something else to drink; NEG > or)
 (...but I can't remember which one; or > NEG)

In Georgian, in contrast with English, when a direct object contains a disjunction, it scopes over verbal negation, which is manifested by the availability of the disjoint reading, and unavailability of the conjoint reading, as shown in (5). The means that the verb is generated and interpreted below the position of the disjunction. The evidence from the two tests, therefore, indicates that the verb does not raise from its base position in all-new, broad focus declarative verb-final clauses in Georgian.¹⁰

- (5) *Dato-s (an) gvino an lud-i ar u-q'var-s.*
 D.-DAT or wine.NOM or beer-NOM NEG VER-love-PRS.3SG
 'Dato doesn't like wine or beer.' (or > NEG, * NEG > or)

Case marking of verbal arguments in Georgian varies between nominative, ergative, and dative, depending on the tense of the verb (known as 'series' in the Kartvelological tradition), as illustrated in Table 1.

Table 1. Case marking by series

Series	'Active' subjects (transitive & unergative)	'Inactive' subjects (unaccusative)	Objects
Present	Nominative		Dative
Aorist	Ergative	Nominative	
Perfect	Dative	Nominative	

With respect to the structural positions and case licensing of verbal arguments, I am following the gist of the existing proposals by Legate (2008) and Nash (2017). The two analyses align in those of their properties that are most important for our purposes (while differing in the proposed mechanics of case assignment): according to both, case licensing in Georgian is achieved in situ. Depending on the series of the verb and the case that the subject carries as a result of it, subjects are generated in different structural projections. In particular, nominative subjects receive case in Spec, VoiceP, ergative ones in Spec, vP, and dative ones in Spec, ApplP; these positions for subjects are also adopted in the current paper. See also Thivierge (2019) for the analysis of dative subjects, and Borise (2019) for a comparison of the existing approaches.

3. Wh-phrases: the facts

Wh-expressions in Georgian are obligatorily found in the IPrP. In this, they align with narrow foci, which, if found in the preverbal domain, also occupy the IPrP. The requirement for a wh-phrase to appear in the IPrP means that no material can intervene between the wh-expression and the verb, except for verbal negation, as shown in (6). Postverbal placement of wh-phrases in Georgian is infelicitous unless they receive an echo interpretation.

¹⁰ Note that other approaches to the structural position of the verb in Georgian are available in the literature. For instance, Lomashvili (2011) proposes that Georgian verbs undergo raising through a series of head positions on the right in order to allow for the assembly of verbal morphology; her analysis, however, does not take into account scope tests such as those used here.

- (6) a. *Bebia ra-s a-lag-eb-d-a?*
 grandma.NOM what-DAT VER-clean-SF-SM-IPFV.3SG
 ‘What did grandma clean?’
- b. **Ra-s bebia a-lag-eb-d-a?*
 what-DAT grandma.NOM VER-clean-SF-SM-IPFV.3SG
 (‘What did grandma clean?’)
- c. *Vin ar i-q'id-a xil-i gušin?*
 who NEG VER-buy-AOR.3SG fruit-NOM yesterday
 ‘Who didn’t buy fruit yesterday?’

Immediately preverbal placement is an absolute requirement that holds for both single and multiple wh-phrases. If there are multiple wh-expressions, they form a single cluster that must be placed preverbally, as shown in (7). The exponent of verbal negation cannot break up the cluster of wh-phrases either, as in (8).¹¹ The behavior of wh-phrases in more complex clause types (clauses with participial complements, nominalizations, and certain modals), together with their structural status, is addressed in Section 8.

- (7) a. *V-is-tvis sad i-mgher-a Levan-ma simgher-a?*
 who-GEN-for where VER-sing.AOR.3SG L.-ERG song-NOM
 (‘Where did Levani sing a song for whom?’)
- b. **V-is-tvis i-mgher-a sad Levan-ma simgher-a?*
 who-GEN-for VER-sing.AOR.3SG where L.-ERG song-NOM
 (‘Where did Levani sing a song for whom?’)
- (8) * *Vin ar ra i-q'id-a?*
 who NEG what VER-buy-AOR.3SG
 (‘Who did not buy what?’)

Finally, wh-phrases in Georgian are confined to the clause that they are merged in – in other words, they must be found in the IPPr of the clause-mate verb, as opposed to any verb. In those cases where a wh-phrase merged in an embedded clause needs to take scope in the matrix clause, long-distance wh-movement is disallowed, as illustrated in (a) in (9). Instead, Georgian employs a strategy known as wh-scope marking (Dayal 1993 et seq., Fanselow 2006, a.o.), in which the true wh-phrase is found in the embedded clause, while another wh-phrase signals its scope in the matrix clause, as shown in (b) in (9).

- (9) a. * *Vi-s/vin_i tkv-a Nino-m [CP(rom) t_i unda v-u-q'ur-o-t]?*
 who-DAT/who say-AOR.3SG N.-ERG COMP MOD 1-VER-watch-OPT.1-PL
 (‘Whom did Nino say (that) we must watch?’)
- b. *Ra tkv-a Nino-m, [CP(rom) vi-s unda v-u-q'ur-o-t]?*
 what.NOM say-AOR.3SG N.-ERG COMP who-DAT MOD 1-VER-watch-OPT.1-PL
 ‘Whom did Nino say that we must watch?’

Certain environments in Georgian do allow cross-clausal wh-movement, however. The first one, well-attested and described in the literature, is complex clauses with matrix verbs *unda* ‘want’ (not to be confused with *unda* ‘have to, must’, discussed in Section 8), *šeudzlia* ‘can, be able to’, and *sč'irdeba* ‘need’ (Harris 1981: 18) and finite embedded clauses. The second one is cross-clausal wh-movement with some other lexical verbs, which do not seem to form a coherent class; see Borise (2019) for details.

4. Narrow foci: the facts

Three focus types are considered here: (i) constituents in replies to wh-questions (WHQs) that correspond to wh-phrases, (ii) constituents in corrective statements that correspond to constituents in the original utterance that are

¹¹ For other properties of multiple wh-questions in Georgian, such as superiority effects, single-pair vs. pair-list readings, and generalizations about distributional properties of wh-phrases of different types (arguments vs. adjuncts, d-linked vs. non-d-linked), see Borise (2019).

corrected, and (iii) constituents modified by focus-inducing particles *only* or *even*. This section shows that the distribution of narrow foci exhibits certain similarities to that of wh-phrases: narrow foci that are found in the preverbal domain require IPrP placement. Unlike wh-phrases, narrow foci can also occur postverbally.

If found in the preverbal domain, narrowly focused constituents in Georgian are placed into the IPrP. Separating the focused constituent further from the verb results in infelicity, as shown in (10):

- (10) ('What did grandma clean yesterday morning?')
- a. *Gušin dila-s bebia samzareulo-s a-lag-eb-d-a.*
 yesterday morning-DAT grandma.NOM kitchen-DAT VER-clean-SF-SM-IPFV.3SG
 'Grandma cleaned THE KITCHEN yesterday morning.'
- b. * *Gušin dilas samzareulos bebia alagebda.*

On the other hand, in contrast with wh-phrases, narrow foci of all types (both arguments and adjuncts) can also be found in the immediately postverbal position (IPoP). Separating the focused constituent from the verb in such contexts is infelicitous, as (11) shows.

- (11) ('What did grandma clean yesterday morning?')
- a. *Gušin dila-s bebi-a a-lag-eb-d-a samzareulo-s.*
 yesterday morning-DAT grandma.NOM VER-clean-SF-SM-IPFV.3SG kitchen-DAT
 'Yesterday morning grandma cleaned THE KITCHEN.'
- b. * *Gušin dilas alagebda bebia samzareulos.*

Furthermore, if a narrowly focused constituent is placed postverbally, there is a strong preference for it to be the only one in the postverbal domain, as illustrated in (12). Taken together, (11) and (12) show that Georgian postverbal focus must be both immediately postverbal and clause-final.

- (12) ('What did grandma clean yesterday morning?')
- ??? *Gušin dila-s a-lag-eb-d-a samzareulo-s bebi-a.*
 yesterday morning-DAT VER-clean-SF-SM-IPFV.3SG kitchen-DAT grandma.NOM
 ('Yesterday morning grandma cleaned THE KITCHEN.')

In allowing for postverbal focus placement, Georgian differs from most other verb-final languages, which, even if allowing for some postverbal elements, commonly ban foci/new information from the postverbal domain. Other than Georgian, some dialects of Basque (Ortiz de Urbina 2002; Elordieta 2011; Etxepare & Ortiz de Urbina 2011; Elordieta & Hualde 2014), earlier varieties of German (Bies 1996; Fuß 2018; Hinterhölzl & Petrova 2018), and Iron Ossetic (Borise & Erschler, in prep) have been reported to allow for postverbal placement of foci in addition to immediately preverbal.

No major interpretational differences, such as contrastiveness or exhaustivity, differentiate preverbal and postverbal foci in Georgian. Specifically, contrastive foci most often arise in corrective contexts¹² and can be expressed both preverbally and postverbally in Georgian, as in (13); see also experimental evidence in Skopeteas & Fanselow (2010).

- (13) ('Mariami grew poor last year.')
- a. *Ara, Levani ga-gharib-d-a šaršan.*
 no L.-NOM PRV-grow_poor-SM-AOR.3SG last_year
 'No, LEVANI grew poor last year.'
- b. *Ara, šaršan ga-gharib-d-a Levani.*
 no last_year PRV-grow_poor-SM-AOR.3SG L.-NOM
 'No, LEVANI grew poor last year.'

Next, consider exhaustivity. Exhaustive interpretation of focus means that the focused constituent contributes new information and simultaneously rejects other alternatives as untrue and can be achieved both preverbally and postverbally in Georgian. To illustrate, both (a) and (b) in (15) are felicitous corrective replies that can be used as

¹² Cf. van der Wal (2016) on different types of corrective focus.

responses to the exchange in (14). See also Skopeteas and Fanselow (2010: 1388), who also conclude that both types of foci in Georgian allow for an exhaustive interpretation but do not require it.

- (14) (The speakers are shown a picture of a girl holding an apple and a banana):
 A: ‘What does Marika have?’
 B: ‘Marika has A BANANA.’
- (15) a. *Ara, Marik’a-s banani da vašli(-c) a-kv-s.*
 no M.-DAT banana.NOM and apple.NOM(-also) VER-have-PRS.3SG
 ‘No, Marika has A BANANA AND AN APPLE.’
- b. *Ara, Marik’a-s a-kv-s banan-i da vašl-i(-c).*
 no M.-DAT VER-have-PRS.3SG banana-NOM and apple-NOM(-EMPH)
 ‘No, Marika has A BANANA AND AN APPLE.’

So far, it looks like Georgian preverbal and the postverbal foci align in their interpretational properties. Nevertheless, there are some subtle differences between the two positions. First, there is some interspeaker variation, with individual speakers exhibiting a strong preference for preverbal or postverbal focus placement (Borise 2019). Second, some Georgian speakers have an intuition that there is a pragmatic distinction between the two: postverbal focus placement is associated with speaker confidence, in that it represents the speaker’s definitive last word (Rusudan Asatiani, p.c.). Finally, certain contexts strongly favor preverbal focus placement over postverbal. This is the case for constituents modified by focus-inducing particles *only* and *even*, which, at least for some speakers, strongly favor preverbal placement (in simple clauses):

- (16) a. *Manana-m mxolod Giorg-i a-k’oc-a.*
 M.-ERG only G.-NOM VER-kiss-AOR.3SG
 ‘Manana only kissed Giorgi.’ (*only* scopes over *Giorgi*)
- b.% *Mananam ak’oca mxolod Giorgi.*

Placement of narrow foci in more complex clauses, such as those involving participial complements, nominalizations, and certain modals, is discussed in Section 8, together with placement of *wh*-phrases in these constructions.

5. Neg-words: interpretation and in-situ status

Now that the distributional properties of *wh*-phrases and narrow foci have been established, in Section 5.1, I show that in the context of an utterance containing narrow focus/*wh*-phrase, other material receives topical interpretation. Syntactically, this is manifested as displacement of non-focal material into the left or right periphery. Not all constituents can undergo this displacement, though. In particular, neg-words, due to their non-referential nature, cannot be topicalized in either of the peripheries, as illustrated in Section 5.2. This has important consequences for the syntax of *wh*-phrases and narrow foci. Specifically, recall also that there is no movement for non-IS reasons in Georgian, such as case assignment, as discussed in Section 2. Taken together, these facts – ban on topicalization of neg-words, and absence of obligatory case-related A-movement – mean that neg-words in Georgian are necessarily found in situ. In Section 5.3, I show that the in-situ status of neg-words can be used as a diagnostic for determining the structural properties of *wh*-phrases and narrow foci.

5.1 Non-focal material: distribution

Topicalized constituents in Georgian appear in the left and right peripheries of a clause. In terms of their interpretational properties, there are two types of topics: contrastive topics, which are found in the left-periphery, and familiarity topics, which may be found in the left periphery (typically following a contrastive topic) or postverbally. Contrastive topics either introduce or change the main topic of the utterance.¹³ Familiarity topics, in turn, refer to given material discourse but cannot introduce new referents (Givón 1983; Frascarelli & Hinterhölzl 2007; Şener 2010).

¹³ In adopting this use of the term, I am lumping together two types of topics: aboutness topics, which serve as the main topic that the sentences is about (Strawson 1964; Reinhart 1981; Givón 1983; Lambrecht 1994, a.o.), and contrastive topics proper, which “create oppositional pairs with respect to other topics” (Frascarelli & Hinterhölzl 2007: 87; cf. also Kuno 1976; Büring 1999). Doing so highlights the fundamental interpretational similarity of the two: they introduce the main topic of the utterance, whether it is specified as contrasting with other possible referents or not.

In the left periphery, contrastive topics typically precede familiarity topics, and both types of topics necessarily precede wh-phrases/narrow foci in the IPrP.

Topical status of a constituent can be shown in the following way. The appearance of a new (contrastive) topic may result from deliberately replacing another element from the contrast set: the explicit juxtaposition of two constituents attests to the presence of a contrast between the two. The availability of a contrastive reading can only obtain with topicalized or focused constituents (Lambrecht 1994); therefore, if the same clause also contains a narrowly focused constituent, the constituent with a contrastive interpretation must be a topic. To illustrate, in the reply (a) in (17), the contrastive topic *Giorgi* is substituted by another one, *Mariam* (cf. Neeleman & Van de Koot 2008; Şener 2010). Note also that the contrastive topic *Mariam* obligatorily precedes the narrowly focused constituent *xač'ap'uri* 'khachapuri', as manifested by the ungrammaticality of reply (b):

- (17) ('And Giorgi? What did he eat at the party?')
- a. *Giorg-i ar v-i-c-i, magram **Mariam-ma** xač'ap'ur-i č'am-a.*
 G.-NOM NEG 1SG-VER-know-PRS.1SG but M.-ERG khachapuri-NOM eat-AOR.3SG
 'I don't know about Giorgi, but Mariami ate KHACHAPURI.'
- b. **Giorg-i ar v-i-c-i, magram xač'ap'ur-i **Mariam-ma** č'am-a.*
 G.-NOM NEG 1SG-VER-know-PRS.1SG but khachapuri-NOM M.-ERG eat-AOR.3SG
 ('I don't know about Giorgi, but KHACHAPURI, Mariami ate.')

Structurally, I do not assume dedicated positions for topical constituents, in line with the work that shows that different types of topics do not occupy syntactic positions available only for a given type of topic (Zwart 2007; Neeleman et al. 2009). Instead, I adopt the view that left-peripheral topics that receive either interpretation are housed in the CP projection, while the preference for contrastive topics to precede familiarity topics is an IS property that is not directly rooted in syntax. In the absence of dedicated projections, such ordering results from the communicative preference to present the main topic or contrastive material first, followed by backgrounded/familiar material (cf. Zwart 2007; Neeleman & Van de Koot 2008; Neeleman et al. 2009). I take the housing projection to be CP as opposed to e.g. TP, given that there is no explicit evidence in Georgian that topics may be available in CP-less structures (cf. Iatridou & Kroch 1992).

There is conflicting evidence with respect to whether left-peripheral topicalized constituents come to occupy their positions by movement or base-generation; the argumentation and examples pertaining to the issue are also laid out in Appendix 1. While this issue requires further scrutiny, which goes beyond the scope of this paper, nothing in the account of focus interpretation and wh-question formation proposed in Sections 6 and 7 hinges on the actual mechanism that underlies displacement of topical material into the left periphery. The derivation of postverbal familiarity topics, which relies on right-adjunction, is also motivated in Appendix 1.

5.2 Neg-words: distributional properties

The main generalization about the distribution of neg-words (also referred to in the literature as n-words; Laka 1990) in Georgian is as follows: they are required to appear in the IPrP (cf. also Aronson 1990: 47). Accordingly, placing neg-words further to the left of the verb results in ungrammaticality (regardless of the thematic role of the neg-word), as shown in (18) and (19):¹⁴

- (18) a. ***Ara-vin** (ar) č'am-a xač'ap'uri dghesasc'aul-ze.*
 NEG-who NEG eat-AOR.3SG khachapuri party-at
 'No-one ate khachapuri at the party.'
- b. ****Ara-vin** xač'ap'uri (ar) č'am-a dghesasc'aul-ze.*
 NEG-who khachapuri NEG eat-AOR.3SG party-at
 ('No-one ate khachapuri at the party.')

¹⁴ Neg-words in Georgian, when placed preverbally, are optionally accompanied by the exponent of verbal negation (according to a prescriptive rule, it should be omitted in the presence of a preverbal neg-word). This means that Georgian is a non-strict negative concord language, but one in which the preverbal exponent of negation is optional, like it is in Catalan (Zanuttini 1991). According to Giannakidou's (2000) classification of negative concord languages, such a combination of properties in a single language is typologically unusual, given that non-strict negative concord languages typically ban exponents of verbal negation in the preverbal domain and require them in the postverbal domain.

- (19) a. *Mariam-ma dghesasc 'aul-ze ara-per-i (ar) č'am-a.*
 M.-ERG party-at NEG-thing-NOM NEG eat-AOR.3SG
 'Mariami didn't eat anything at the party.'
- b. * *Mariam-ma ara-per-i dghesasc 'aul-ze (ar) č'am-a.*
 M.-ERG NEG-thing-NOM party-at NEG eat-AOR.3SG
 'Mariami didn't eat anything at the party.'

Direct object neg-words, such as such as *araperi/veraperi/nuraperi* 'nothing'¹⁵, for some speakers, can occur in the postverbal domain as well. Other neg-words, in contrast, are considerably more resistant to postverbal placement, as shown in (20).

- (20) a. %*Mariam-ma *(ar) č'am-a ara-per-i.*
 M.-ERG NEG eat-AOR.3SG NEG-thing-NOM
 'Mariami didn't eat anything.'
- b. ???*Levani ar c'a-vid-a ar-sad.*
 L.-NOM NEG PRV-go-AOR.3SG NEG-where
 'Levani didn't go anywhere.'
- c. ???*Mariam-ma naq'in-i ar i-q'id-a ara-vi-s-tvis.*
 M.-ERG ice-cream-NOM NEG VER-buy-AOR3.SG NEG-who-GEN-for
 'Mariami didn't buy ice-cream for anyone.'

The IPrP-placement requirement that applies to neg-words in Georgian makes their distribution similar to that of narrow foci and wh-phrases. This is not surprising, given that there is a robust semantic connection between these types of constituents: focusing and questioning pick a particular entity from a set of alternatives, while neg-words "eliminate entire sets of contextual alternatives" (Drubig 2003: 15). The requirement for immediately preverbal placement of neg-words, found in Georgian, also has some cross-linguistics parallels. In Iron Ossetic, an Iranian language of the Caucasus that has been influenced by Kartvelian, neg-words are also obligatorily immediately preverbal; in contrast with Georgian, no neg-words can be placed postverbally in Iron Ossetic (Erschler 2010; 2012; 2013). Neg-words in Pamiri, another Iranian language, not in contact with Kartvelian, have the same distribution (Erschler & Volk 2010). In Hittite, an extinct Anatolian language, neg-words together with relative pronouns, wh-phrases and indefinites formed a cluster that had to be adjacent to the verb, either by preceding or following it (Sideltsev 2014; 2016; 2017; Huggard 2015).¹⁶

5.3 Non-topical status of neg-words

One of the main properties of neg-words in Georgian is that they do not leave their base position, since they cannot receive a topical interpretation. Coupled with the fact that there is no movement for case assignment in Georgian, this means that neg-words are necessarily found in situ, and, as such, can be used as a tool for determining the syntactic status and positions of other elements in narrow focus contexts.

The reason for this rigid placement restriction is the non-referential status of neg-words: since they refer to empty sets and do not pick out any referent in the world, they cannot act as topics. In this, neg-words align with non-specific indefinites, another class of non-referential constituents that avoid topical interpretation (Reinhart 1991; Lambrecht 1994; Şener 2010, a.o.).¹⁷ This behavior of non-specific indefinites is illustrated in (21): *nebismier matarebels* 'any train' cannot precede a wh-phrase (A') or a narrowly focused constituent (B') (though it can be found in the postverbal domain, as in A or B). The same is shown for *rame* 'something' in (22).

¹⁵ Both exponents of verbal negation and neg-words vary by modality in Georgian: *ar/ar-* is used in indicative mood, *nu/nu-* in prohibitive mood, and *ver/ver-* to indicate that an attempt at an action was not successful.

¹⁶ On the other hand, cf. Creissels (2010) on the similarity between narrowly focused items and negation/neg-words in Basque, Hungarian and Eastern Armenian, and his conclusion that, while there are notable distributional similarities, consistent common rules can hardly be formalized.

¹⁷ Though see Cresti (1995) on the notion of indefinite topics.

- (21) A: *Vin ga-h-q 'v-eb-a nebismier matarebel-s?*
 who PRV-3-follow-SF-3SG any train-DAT
 'Who would take any train?'
- A': * *Nebismier matarebel-s vin ga-h-q 'v-eb-a?*
 any train-DAT who PRV-3-follow-SF-3SG
 'Who would take any train?'
- B: *Giorg-i ga-h-q 'v-eb-a nebismier matarebel-s.*
 G-NOM PRV-3-follow-SF-3SG any train-DAT
 'GIORGI would take any train.'
- B': * *Nebismier matarebel-s Giorg-i ga-h-q 'v-eb-a.*
 any train-DAT G-NOM PRV-3-follow-SF-3SG
 ('GIORGI would take any train.')
- (22) A: **Rame vin i-p'ov-a sxven-ši?*
 something who VER-find-AOR.3SG attic-in
 ('Who found something in the attic?')
- B: **Rame Marik'a-m i-p'ov-a sxven-ši.*
 something M.-ERG VER-find-AOR.3SG attic-in
 ('MARIKA found something in the attic.')

Consider now the behavior of neg-words. As shown in (23) and (24), they, too, cannot act as topics:¹⁸

- (23) ('And lobiani? Did anyone eat [any]?')
- B. * *Lobian-ze ar v-ic-i, magram ara-per-i (ar) č'am-a Mariam-ma.*
 lobiani-about NEG 1SG-know-SM but NEG-thing-NOM NEG eat-AOR.3SG M.-ERG
 ('I don't know about lobiani, but MARIAMI ate nothing.')
- (24) A: *Dghes vin ar i-q'id-a ara-per-i?*
 today who NEG VER-buy-AOR.3SG NEG-thing-NOM
 'Who bought nothing today?'
- A': * *Dghes ara-per-i vin ar i-q'id-a?*
 today NEG-thing-NOM who NEG VER-buy-AOR.3SG
 ('Who bought nothing today?')
- B: *Dghes Mariam-ma ar i-q'id-a ara-per-i.*
 today M.-ERG NEG VER-buy-AOR.3SG NEG-thing-NOM
 'MARIAMI bought nothing today.'

¹⁸ An apparent exception to the generalization that neg-words cannot act as familiarity topics obtains in utterances with a neg-word subject, which can be found to the left of a narrowly focused object:

- (i) a. *Dghes ara-vin p'amidor-eb-i ar i-q'id-a.*
 today NEG-who tomato-PL-NOM NEG VER-buy-AOR.3SG
 'No-one bought TOMATOES today.'
- b. ??*Dghes p'amidor-eb-i ar i-q'id-a ara-vin.*
 today tomato-PL-NOM NEG VER-buy-AOR.3SG NEG-who
 'No-one bought TOMATOES today.'

As discussed in detail in Section 7, in such cases, the subject neg-word stays in its base position instead of the left periphery but this is obscured by the fact that the two structures have the same linearization.

B': * *Dghes ara-per-i Mariam-ma ar i-q'id-a.*
 today NEG-thing-NOM M.-ERG NEG VER-buy-AOR.3SG
 ('MARIAMI bought nothing today.')

In avoiding topical interpretation, neg-words in Georgian pattern together with their counterparts in some other languages, such as Italian, in which they similarly have been demonstrated to avoid topicalization in Clitic Left Dislocation (CLLD) structures (Alexiadou 2006), as shown in (25):

(25) **Nessuno lo ho visto.*
 Nobody him have seen
 ('No-one has seen him.')(Alexiadou 2006)

Based on the examples in Section 5.2 and 5.3, the following generalization emerges: given their non-referential nature, neg-words cannot receive a topical interpretation and displace into the left or right periphery. Based on this, and the fact that non-IS-motivated movement, such as movement for case, does not exist in Georgian, the logical conclusion is that neg-words are always found in situ. As such, they can provide useful evidence about the structural positions of wh-phrases and narrow foci, as shown in Sections 6 and 7, respectively.

Before turning to using neg-words as a diagnostic for the position of other constituents in a clause, recall from Section 5.2 that some speakers allow for direct object neg-words in the postverbal domain:

(26) %*Mariam-ma ar c'am-a ara-peri.*
 M-ERG NEG eat-AOR.3SG NEG-thing
 'Mariamma didn't eat anything.'

At first sight, it might seem that this violates the generalization derived above, that neg-words are necessarily found in situ. This is only an apparent problem, however. Recall from Section 2 that VO is possible as a neutral word order in broad-focus contexts, and that it is derived by short movement of the verb, which means that the direct object in VO orders, like in OV ones, is found in situ. Accordingly, it is not surprising that direct object neg-words may be found in the postverbal domain: such placement corresponds to their in-situ position, after the verb undergoes movement to v⁰. Postverbal object neg-words, then, behave like any other postverbal objects. Note also that the fact that neg-word direct objects are allowed in the postverbal domain allows to exclude an analysis that would account for adjacency between neg-words and the verb by postulating a NegP projection, the specifier of which would host the neg-word, with the verb raised to Neg⁰. Such an analysis would not explain the dual behavior of direct object neg-words.¹⁹

6. Structural status of wh-phrases: Spec-Head configuration

As compared to narrow foci (and neg-words), wh-phrases have the simplest distribution: they can only occur in IPrP, as illustrated by (27) and (28) below. This is the reason why wh-words are often picked as examples of the set of constituents that have a requirement to surface in the IPrP, since their distribution is thought to be the most consistent.

(27) a. *Bebi-a ra-s a-lag-eb-d-a?* =(6)
 grandma.NOM what-DAT VER-clean-SF-SM-IPFV.3SG
 'What did grandma clean?'

b. **Ra-s bebia a-lag-eb-d-a?*
 what-DAT grandma.NOM VER-clean-SF-SM-IPFV.3SG
 ('What did grandma clean?')

(28) **Bebia a-lag-eb-d-a ra-s?*
 grandma.NOM VER-clean-SF-SM-IPFV.3SG what-DAT
 ('What did grandma clean?')

¹⁹ It is unclear why only some speakers allow for postverbal placement of object neg-words. What is important for our purposes, though, is the contrast between the behavior of object neg-words and all other neg-words: the latter uniformly resist postverbal placement.

By extension, preverbal occurrences of narrow foci (and neg-words) may be assumed to have the same underlying syntax, while also, for some independent reason, allowing for more flexibility. However, the remainder of this paper shows that this way of thinking is misleading, since wh-expressions in Georgian differ in their syntactic properties from both narrow foci and neg-words. Specifically, this section demonstrates that wh-expressions in Georgian come to occupy their surface position by way of A-bar movement to the specifier of a projection located between the vP/VoiceP and TP, accompanied by raising of the verb to the head position of the same projection (PredP).²⁰ The way that the wh-phrase and the verb come to occupy their positions in PredP is, therefore, similar to the way immediately preverbal narrow foci and verbs achieve adjacency under the approaches that postulate a dedicated projection that houses the two elements, such as FocusP. The schematic representation of the structure underlying wh-questions is provided in (29), based on the example (a) in (27):

(29) [CP Grandma_k ... [PredP what_i cleaned_j [VoiceP t_k ... [vP t_i t_j]]]]

The A-bar movement analysis for wh-constituents, pursued here, is a type of a Spec-Head configuration, in which the syntax ensures that the wh-expression and the verb are adjacent, as was discussed in Section 1. Recall that the main analytical alternative would be to interpret the wh-expression in situ, accompanied by displacement/topicalization of any material that would otherwise intervene between the wh-expression and the verb. In the remainder of this section, a variety of evidence supporting the Spec-Head configuration as underlying wh-question (WHQ) formation in Georgian is discussed, as opposed to in-situ interpretation. These include island effects, weak crossover (WCO) effects, and interaction of wh-expressions with neg-words. More specifically, island and WCO facts show that wh-question formation in Georgian involves movement of the wh-expression (as opposed to in-situ interpretation), though it does not allow us to tell whether the movement is overt or covert, since island effects and WCO effects are sensitive to both overt and covert movement. Next, the interaction of wh-expressions with neg-words shows that the movement that wh-phrases undergo is overt but does not allow us to identify the height of its landing site. Finally, interaction of wh-expressions and interrogative complementizers shows that the landing site for wh-constituents is above the thematic domain but below the CP-area.

First, consider island effects. Island effects are robustly present in wh-questions in Georgian, which can be demonstrated with relative clause (RC) islands (both externally- and internally-headed ones, as shown in (a) and (b) in (30), respectively), and complex NP islands (31).²¹ This means that the derivation of wh-questions in Georgian involves movement of the wh-constituent to the left periphery of its clause, which is blocked when such a constituent is embedded in RC or complex NP. Island effects, however, do not differentiate between overt and covert movement for the purposes of interpretation – they only signal the presence of either kind of movement (as opposed to in-situ interpretation of a wh-variable, without any connection to the left periphery of the clause).

²⁰ The name of the projection utilized here, PredP, has no immediate connection to the projection with the same name introduced in Bowers (1993). Instead, the PredP projection argued for here resembles FocusP that has been proposed for Hungarian (Bródy 1990; Szabolcsi 1981; É. Kiss 1998; Szendrői 2001), Persian (Karimi 2008; Toosarvandani 2008; Megerdooian & Ganjavi 2000) and other verb-final languages in which movement of focus to a dedicated projection is postulated (note that in Georgian, this projection hosts wh-phrases, while narrow foci are interpreted in situ). Naming this projection PredP (as opposed to FocusP) intends to capture the fact that the material housed in it – namely, a wh-phrase and the verb – constitutes the focus/comment of the clause in information-structural terms (as opposed to the topic of the clause), which also closely resembles the notion of a (logical) predicate in Den Dikken’s (2005; 2006; 2013) work. The connection between the notions of focus and predication, as well as those between the FocusP and PredP, are to be explored in future work.

²¹ This generalization departs from the claim made in Borise & Polinsky (2018), that Georgian does not have island effects with RCs and complex NPs. The current analysis is based on more types of island data obtained from more speakers. Nevertheless, there is a wh-construction which does not exhibit island effects, shown in (i), as discussed in Borise & Polinsky (2018). Such constructions might involve a resumption-like dependency between the two wh-expressions and require further investigation.

- (i) *Vis-ze_i ga-i-g-o* [NP *č’ori rom vin_i u-q’var-s*
 Who-about PRV-VER-hear-AOR.3SG rumor.NOM COMP who.NOM VER-love-PRS.3SG
Marik’a-s?
 M.-DAT
 lit.: ‘Who_i did you hear the rumor about, that Marika loves who_i?’

- (30) a. **Marik'a-m i-q'id-a c'ind-eb-i* [_{RC} *romeli-c vin mo-ksov-a*]?
M.-ERG VER-buy-AOR.3SG socks-PL-NOM which-COMP who PRV-knit-AOR.3SG
(Lit.: 'Marika bought the socks that who knitted?')
- b. * *Marik'a-m i-q'id-a* [_{RC} *vin rom mo-ksov-a c'ind-eb-i*]?
M.-ERG VER-buy-AOR.3SG who COMP PRV-knit-AOR.3SG socks-PL-NOM
(Lit.: 'Marika bought the socks that who knitted?')
- (31) *_{[NP} *Č'ori, rom Lali vin a-k'oc-a c'ina kvira-s] martali ar*
rumor.NOM COMP L.NOM who PRV-kiss-AOR.3SG last week-DAT true NEG
aris?
be.PRS.3SG
('The rumor that who kissed Lali last week is not true?')

Next, consider weak crossover (WCO) facts. WCO configurations can help disentangle in-situ interpretation from A-bar movement that would be involved in a Spec-Head configuration (or LF movement). WCO effects in a language like English, where wh-expressions undergo overt A-bar movement to Spec-CP, are thought to result from the wh-expression crossing a variable that it is coindexed with on its way to Spec-CP (Chomsky 1976: 19; Higginbotham 1980; Koopman & Sportiche 1982; Reinhart 1983; Safir 1984), as shown in (32). In languages with wh-in-situ there is no overt 'crossing', since the wh-expression does not leave its base position, but WCO effects may still be present – arguably, due to LF movement of the wh-expression over the variable to the CP domain of the clause (cf. Huang 1982; Aoun & Li 1993 for Mandarin Chinese).

- (32) ??*Who_i did her_i husband describe t_i to Giorgi?*

Assuming that such A-bar movement, at any height in the clause, would target a projection that dominates the vP, WCO effects should be present; on the in-situ interpretation account, there should be no WCO effects. With this in mind, consider WCO effects in wh-questions, which can arise between a pronominal subject and a wh-phrase object, as was shown for English in (32). In Georgian, the equivalent of (32) is ungrammatical, as shown in (33), which indicates that the wh-phrase in Georgian crosses a coindexed pronominal on the way to its landing site (either overtly or covertly).²²

- (33) **Vin_i a-u-gh-c'er-a tavis-ma_i kmar-ma Giorgi-s?*
who PRV-VER-PRV-write-AOR.3SG 3SG.REFL.POSS-ERG husband-ERG G.-DAT
('Who_i did her_i husband describe to Giorgi?')

Based on the evidence from island effects and WCO, wh-question formation in Georgian involves movement of the wh-constituent, which manifests itself in the presence of other variables, such as possessive anaphors in WCO contexts or relative operators in RCs. In fact, the picture is more complex than that: the movement that is detected by WCO effects is short (overt) A-bar movement, which, I argue, wh-phrases undergo. In contrast, island effects signal the presence of further (covert) movement of the wh-expression/its subpart to the CP-domain, which is required for the correct interpretation of the wh-phrase.

Now that we have established that wh-expressions in Georgian are not interpreted in situ, the next question is whether the movement that WCO and island effects detect is overt or covert. The interaction of wh-expressions and neg-words indicates that this movement is overt. First, all neg-words, regardless of their argument/adjunct status, must surface postverbally in WHQs. Specifically, a neg-word direct object must surface in the postverbal domain in a WHQ with a wh-subject, as shown in (34):

- (34) a. *Dghes vin ar i-q'id-a ara-peri?* =(24)
today who NEG VER-buy-AOR.3SG NEG-what
'Who bought nothing today?'

²² Amiridze (2006: 62) discusses parallel structures as not giving rise to WCO effects, though note that she uses examples with complex/d-linked wh-phrases ('which X') instead of simple ones, which may be a relevant factor with respect to the variability in judgements in WCO constructions.

b. * *Dghes ara-peri vin (ar) i-q'id-a?*
 today NEG-what who NEG VER-buy-AOR.3SG
 ('Who bought nothing today?')

c. * *Ara-peri dghes vin (ar) i-q'id-a?*
 NEG-what today who NEG VER-buy-AOR.3SG
 ('Who bought nothing today?')

In a parallel fashion, a neg-word subject must be placed in the postverbal domain in a WHQ with a direct object wh-phrase, as shown in (35). Anticipating the discussion of the interaction between neg-words and narrow foci in Section 7, note that they contrast with the picture found in WHQs: postverbal placement of negative subjects, as shown in (a) in (35) for WHQs, is strongly degraded in the context of a narrowly focused object in the IPPrP.

(35) a. *Dghes ra ar i-q'id-a ara-vin?*
 today what NEG VER-buy-AOR.3SG NEG-who
 'What did no-one buy today?'

b. * *Dghes ara-vin ra (ar) i-q'id-a?*
 today NEG-who what NEG VER-buy-AOR.3SG
 ('What did no-one buy today?')

c. * *Ara-vin dghes ra (ar) i-q'id-a?*
 NEG-who today what NEG VER-buy-AOR.3SG
 ('What did no-one buy today?')

The fact that the wh+verb complex can only surface to the left of a (postverbal) subject neg-word, as shown in (35), combined with the fact that neg-words are found in situ in Georgian, suggests that the wh-expression and the verb surface in derived positions, as demonstrated in (36). If so, wh-phrases must occupy these derived positions in a Spec-Head configuration.

(36) $[_{XP} \text{wh-object}_i [_{X} \text{verb}_j \dots [_{vP/VoiceP/AppIP} \text{neg-subject} \dots [_{YP} \text{t}_i [_{Y} \text{t}_j]]]]]]$

The next step is to determine the height in the clause at which this configuration is obtained. In order to do that, note that in WHQs with a neg-word subject, such as (35), the wh+verb complex is located higher than the subject position. In turn, the subject position, depending on the series of the verb, is either Spec, vP (for ergative subjects), Spec, VoiceP (for nominative subjects), or Spec, AppIP (for dative subjects), as discussed in Section 2. Accordingly, in WHQs with a neg-word subject, the movements that the wh-object and the verb undergo take them to a projection above the base position of the subject.

Let us look further into the height of this projection. Embedded wh-questions provide evidence suggesting that, in Georgian, wh-movement targets a position below the CP. Specifically, in embedded wh-questions, the interrogative complementizer *tu*, a C⁰, precedes the wh-phrase. As (37) shows, *tu* cannot follow a wh-phrase, which means that the wh-phrase is located below the CP (cf. also Erschler 2015: 62).

(37) *Marik'a-s u-nda i-c-od-es [CP tu ra (*tu) tkv-a Manana-m].*
 M.DAT VER-want VER-know-SM-SM-3SG COMP.Q what COMP.Q say-AOR.3SG M.-ERG
 'Marika wants to know what Manana said.'

Together, these pieces of evidence show that the landing site for wh-phrases, as well as the movement of the verb that accompanies wh-movement, is above the vP/VoiceP and below the CP. I propose that this projection is PredP, located on the top of the VoiceP, as was shown in (29). The height of this projection matches the fact that wh-phrases do not raise all the way to the left periphery in Georgian, and, in terms of interpretation, it highlights the fact that the wh-phrase and the verb form act as a predicate with respect to the other, topicalized material in a WHQ.

7. Structural status of narrow foci

This section presents evidence that, unlike wh-phrases, preverbal narrow foci are interpreted in situ, accompanied by topicalization/displacement of the material that intervenes between the focused constituent and the verb, which ensures

their adjacency (Section 7.1). Postverbal narrow foci, in turn, result from low adjunction in the postverbal domain, on the right side of the clausal spine (Section 7.2).

7.1 Preverbal narrow foci: in-situ interpretation

First, let us recap the distributional properties of narrow foci in Georgian. Recall from Section 4 that narrow foci, if found in the preverbal domain, obligatorily surface in the IP_{Pr}. This is shown in (38) for narrow focus in a reply to a WHQ, contrastive focus in (39), and for narrow foci modified by *even* and *only* in (40) and **Error! Reference source not found.**, respectively.

(38) ('What did grandma clean?') = (10)
Bebi-a samzareulo-s a-lag-eb-d-a.
 grandma.NOM kitchen-DAT VER-clean-SF-SM-IPFV.3SG
 'Grandma cleaned THE KITCHEN.'

(39) ('Mariami grew poor last year.') = (13)
Ara, Levan-i ga-gharib-d-a šaršan.
 no L.-NOM PRV-grow_poor-SM-AOR.3SG last_year
 'No, LEVANI grew poor last year.'

(40) *Manana-m mxolod Giorg-i a-k'oc-a.* = (16)
 M.-ERG only G.-NOM VER-kiss-AOR.3SG
 'Manana ONLY kissed GIORGI.' (*only* scopes over *Giorgi*)

The analytical options for focus-verb adjacency, based on the two main structural configurations discussed in Section 1, are the following. The first one is a Spec-Head configuration, which results from A-bar movement of the focused constituent to the specifier position of a certain projection, accompanied by movement of the verb to the head of the same projection; this is the configuration that underlies wh-question formation in Georgian, as was shown in Section 6. The second one is the in-situ interpretation of focus, made possible by displacement of the material that intervenes between the focus and the verb to the right or left periphery. In this section, each of these options is considered with respect to narrow foci.

The evidence against a Spec-Head configuration as underlying preverbal focus in Georgian comes from the distribution of neg-words. As argued in Section 5, neg-words in Georgian are interpreted in situ and cannot be displaced into the CP-area, owing to their non-referential nature, which does not allow them to receive a topical interpretation. At the same time, as discussed in more detail below, a subject neg-word can linearly precede a narrowly focused direct object, as exemplified in (B) in (41):

(41) A: *Dghes ra ar i-q'id-a ara-vin?*
 today what NEG VER-buy-AOR.3SG NEG-who
 'What did no-one buy today?'
 B: *Dghes ara-vin p'amidor-eb-i ar i-q'id-a.*
 today NEG-who tomato-PL-NOM NEG VER-buy-AOR.3SG
 'No-one bought TOMATOES today.'
 B': *??Dghes p'amidor-eb-i ar i-q'id-a ara-vin.*
 today tomato-PL-NOM NEG VER-buy-AOR.3SG NEG-who
 'No-one bought TOMATOES today.'

This means that the structural position of the focused constituent is necessarily lower in the structure than the base position of the subject (recall that subjects in Georgian do not leave their base position and receive case in situ). The narrowly focused constituent being so low in the clause, within the thematic domain, speaks against it being found in a projection dedicated to housing material with particular information-structural properties.

There are a number of pieces of evidence favoring in-situ interpretation of narrow foci in the IP_{Pr} over the Spec-Head configuration analysis. These include quantifier scope facts, island facts, and interaction of narrow focus with neg-words, discussed in detail in the remainder of this section. Accordingly, the syntactic structure that these facts motivate is shown in (42), based on (38):

(42) [CP Grandma_k ... [VoiceP t_k ... [VP KITCHEN cleaned]]]

First, consider quantifier scope facts. With respect to their scope properties, narrowly focused constituents align with their in-situ counterparts, which suggests that they, too, are found in situ. However, surface scope is generally preferred in Georgian; inverse scope may be available in a context that favors it and/or if it is accompanied by particular prosodic cues that signal inverse scope. While the details of scope taking in Georgian require further investigation, what is clear is that surface scope readings are the default while inverse scope readings require additional means. In line with this, direct objects in broad focus contexts have narrow scope, as compared with structurally higher adverbs. Specifically, quantified direct objects scope below the position of a low adverb such as *seldom*. To illustrate, the utterance in (43) is more naturally interpreted as describing the situation in which a professor usually calls on more than three students (i.e., rarely calls on less than three; ADV > NUM), as opposed to the situation in which there are less than three students such that the professor rarely calls on them (^{??}NUM > ADV).

(43) *Masc'avlebel-i išviatad sam-ze nak'leb st'udent'-s mo-u-c'od-eb-s.*
 teacher-NOM seldom three-on less student-DAT PRV-VER-call-SF-PRS.3SG
 'The teacher seldom calls on fewer than three students.'
 (ADV > NUM; ^{??}NUM > ADV)

Similarly, a narrowly focused constituent in (44) takes narrow scope as compared to the adverb *išviatad* 'seldom':

(44) ('How many students does the teacher seldom call on?')
Masc'avlebel-i išviatad sam-ze nak'leb st'udent'-s mo-u-c'od-eb-s.
 teacher-NOM seldom three-on less student-DAT PRV-VER-call-SF-PRS.3SG
 'The teacher seldom calls on FEWER THAN THREE STUDENTS.'
 (ADV > NUM; *NUM > ADV)

The fact that narrowly focused objects align with their counterparts in broad focus declaratives (which are found in situ) with respect to their scope properties suggests that narrowly focused objects, too, are found in situ. Similarly, narrow foci take narrow scope with respect to the material in the left periphery, which also signals absence of movement. The scope reading available in (44) speaks against a Spec-Head configuration: given the low position of the adverb and the fact that it scopes over the object, a Spec-Head configuration would need to be postulated very low in the clause. Given that there is no independent evidence for that, it is more parsimonious to assume that the focused object is found in situ.

Next, consider relative clause (RC) islands. Only a subset of foci – namely, constituents modified by focus-inducing particles and corrective foci, but not narrow foci in replies to WHQs – can be embedded in a RC. This is because the latter context would require the wh-expression in the preceding wh-question to be embedded in a RC, too, but this is ungrammatical, as shown in Section 6. The other two types of focus can be found within RCs, as shown in (45) and (46), respectively. These examples also provide evidence that narrow foci are interpreted in situ: if their interpretation involved movement, placing them inside a strong island, such as a RC, would result in ungrammaticality.

(45) ('Marika bought the socks that Nino knitted.')

<i>Ara,</i>	<i>Marik'a-m</i>	<i>i-q'id-a</i>	<i>c'ind-eb-i</i>	[_{RC} <i>romeli-c</i>	<i>Nana-m</i>
no	M.-ERG	VER-buy-AOR.3SG	socks-PL-NOM	which-COMP	N.-ERG

mo-ksov-a].
 PRV-knit-AOR.3SG
 'No, Marika bought the socks that NANA knitted.'

(46) *Marik'a-m i-q'id-a c'ind-eb-i* [_{RC} *romeli-c mxolod Nana-m*
 M.-ERG VER-buy-AOR.3SG socks-PL-NOM which-COMP only N.-ERG
mo-ksov-a].
 PRV-knit-AOR.3SG
 'Marika bought the socks that only Nana knitted.'

Finally, consider the interaction of narrow foci and neg-words. Recall that neg-words also have a requirement to surface in the IPrP, but, at the same time, we have also seen that neg-words are necessarily found in situ, since they cannot receive a topical interpretation and undergo displacement into a peripheral position. With that in mind, the

positions of neg-words in narrow focus contexts provide evidence about focus placement, as they did for wh-phrases. As shown below, the relative distributions of wh-phrases and narrow foci with respect to neg-words are different.

First, consider a context with a narrowly focused subject and a neg-word direct object. As shown in (47), the neg-word *araperi* ‘nothing’ cannot precede a narrowly focused subject, because that would involve a derived position of the neg-word, which is disallowed (a referential NP in such a context, would, of course be allowed to precede the narrowly focused subject). Leaving *araperi* ‘nothing’ in its base position in the postverbal domain is allowed:

- (47) A: *Dghes vin ar i-q'id-a ara-per-i?*
today who NEG VER-buy-AOR.3SG NEG-thing-NOM
‘Who bought nothing today?’
- B: *Dghes Mariam-ma ar i-q'id-a ara-per-i.*
today M.-ERG NEG VER-buy-AOR.3SG NEG-thing-NOM
‘MARIAMI bought nothing today.’
- B': * *Dghes ara-per-i Mariam-ma ar i-q'id-a.*
today NEG-thing-NOM M.-ERG NEG VER-buy-AOR.3SG
(‘MARIAMI bought nothing today.’)

The fact that the neg-word is interpreted in situ here does not yet provide definitive evidence for the structural position of the focus and the verb: both an in-situ interpretation of focus (accompanied by V-to-v movement of the verb, which derives postverbal placement of the neg-word), and movement of both elements, focus and the verb, to PredP would result in the same linearization. With that in mind, consider again a context with a narrowly focused DO and a neg-word subject, as in (48), repeated from (41). Here, the subject neg-word *aravin* ‘no-one’ can precede a narrowly focused DO. In contrast, postverbal placement of *aravin* in the same context is degraded – even though such placement would mirror the word order in the WHQ:

- (48) A: *Dghes ra ar i-q'id-a ara-vin?*
today what NEG VER-buy-AOR.3SG NEG-who
‘What did no-one buy today?’
- B: *Dghes ara-vin p'amidor-eb-i ar i-q'id-a.*
today NEG-who tomato-PL-NOM NEG VER-buy-AOR.3SG
‘No-one bought TOMATOES today.’
- B': ??*Dghes p'amidor-eb-i ar i-q'id-a ara-vin.*
today tomato-PL-NOM NEG VER-buy-AOR.3SG NEG-who
‘No-one bought TOMATOES today.’

The picture that emerges from (47) and (48) contrasts with what we have seen for wh-questions in Section 5: neg-words, regardless of their thematic role, cannot linearly precede wh-phrases; the reader is reminded of the wh-phrase and neg-word interaction facts in (49) and (50):

- (49) a. *Dghes ra ar i-q'id-a ara-vin?* = (35)
today what NEG VER-buy-AOR.3SG NEG-who
‘What did no-one buy today?’
- b. * *Dghes ara-vin ra (ar) i-q'id-a?*
today NEG-who what NEG VER-buy-AOR.3SG
(‘What did no-one buy today?’)
- c. * *Ara-vin dghes ra (ar) i-q'id-a?*
NEG-who today what NEG VER-buy-AOR.3SG
(‘What did no-one buy today?’)
- (50) a. *Dghes vin ar i-q'id-a ara-per-i?* = (34)
today who NEG VER-buy-AOR.3SG NEG-what
‘Who bought nothing today?’

b. * *Dghes ara-peri vin (ar) i-q'id-a?*
 today NEG-what who NEG VER-buy-AOR.3SG
 ('Who bought nothing today?')

c. * *Ara-peri dghes vin (ar) i-q'id-a?*
 NEG-what today who NEG VER-buy-AOR.3SG
 ('Who bought nothing today?')

Now, consider (47)-(50) together. Keeping in mind that the structural position of the neg-words is identical in both narrow focus contexts and wh-questions (given that neg-words do not leave their in-situ position), these examples provide evidence that the structure underlying narrow foci is crucially different from that underlying wh-questions.

In order to identify the difference, note that the word order in the felicitous reply (B) in (48) is identical to the neutral SOV order that would be found in a broad focus context. The neg-word being found in situ means that narrow focus and the verb are found very low in the structure – i.e., also in their in-situ positions. The derivation of (B) in (48) is provided in (51). To recap, the evidence that has been provided in this section provides strong support for the analysis of narrowly focused constituents as interpreted in situ, similarly to neg-words.

(51) [CP Today ... [VoiceP [vP no-one ... [VP TOMATOES bought]]]]

The idea that narrow foci in Georgian are interpreted in situ is further supported by the fact that some speakers allow for direct object neg-words to intervene between a focused subject and the verb, as shown in (52).²³ The resulting word order, then, corresponds to the unmarked SOV order, and means that both the focused subject and the neg-word are found in their base positions:

(52) A: *Vin ar i-q'id-a ara-per-i?*
 who NEG VER-buy-AOR.3SG NEG-thing-NOM
 'Who bought nothing?'

B: %*Manana-m ara-per-i ar i-q'id-a.*
 M.-ERG NEG-thing-NOM NEG VER-buy-AOR.3SG
 'MANANA bought nothing.'

In contrast, the same word order (narrow focus – neg-word – verb), is impossible when the theta roles are reversed – that is, with a subject neg-word intervening between a focused direct and the verb, as shown in (53). This is expected under the current proposal, since in such a word order neither of the verbal arguments would be found in situ:

(53) A: *Ra ar i-q'id-a ara-vin?*
 what NEG VER-buy-AOR.3SG NEG-who
 'What did no-one buy?'

B: * *Ghvino ara-vin ar i-q'id-a.*
 wine.NOM NEG-who NEG VER-buy-AOR.3SG
 ('No-one bought WINE.')

The interaction between narrow foci and neg-words, therefore, provides decisive evidence against a uniform structural treatment of preverbal narrow foci and wh-phrases in Georgian. In particular, it shows that preverbal narrow foci in Georgian are interpreted in situ. Wh-phrases, in contrast, undergo A-bar movement to Spec, PredP, accompanied by head-movement of the verb to Pred⁰.

Finally, anticipating the discussion of postverbal narrow foci in the next section, let us briefly consider narrow foci in the IPrP with respect to their binding properties. Amiridze (2006: 57) shows that indirect objects (IO) in Georgian can bind direct objects (DO), while the reverse does not hold. Furthermore, scrambling of the IO and DO does not affect the binding relations: namely, the IO binds the DO with either word order:

²³ Alternatively, a VO word order, with the object neg-word found in the postverbal domain, is also possible.

- (54) a. *Me Bakar-s_i [tavis-i tav-i]_i agh-v-u-c'er-e.*
 1SG B.-DAT 3REFL.GEN.SG-NOM self-NOM PRV-1SG-VER-write-AOR.3SG
 'I described Bakar to himself.' (Lit.: I to.Bakar himself described.)
- b. *Me [tavis-i tav-i]_i Bakar-s_i agh-v-u-c'er-e.*
 1SG 3REFL.GEN.SG-NOM self-NOM B.-DAT PRV-1SG-VER-write-AOR.3SG
 'I described Bakar to himself.' (Lit.: I himself to.Bakar described.) (Amiridze 2006: 57)

When the antecedent of the anaphor bears narrow focus, only the DO>IO word order is possible. This is expected, since narrow focus must be located in the IPrP and not further to the left of the verb:

- (55) A: *Šen vi-s agh-u-c'er-e tavis-i tavi?*
 2SG who-DAT PRV-VER-write-AOR.2SG 3REFL.GEN.SG-NOM self-NOM
 'Who did you describe to himself?'
- B: *Me [tavis-i tav-i]_i Bakar-s_i agh-v-u-c'er-e.*
 1SG 3REFL.GEN.SG-NOM self-NOM B.-DAT PRV-1SG-VER-write-AOR.3SG
 'I described BAKAR to himself.' (Lit.: I himself TO.BAKAR described.)
- B': * *Me Bakar-s_i [tavis-i tav-i]_i agh-v-u-c'er-e.*
 1SG B.-DAT 3REFL.GEN.SG-NOM self-NOM PRV-1SG-VER-write-AOR.3SG
 'I described BAKAR to himself.' (Lit.: I TO.BAKAR himself described.)

The pattern in (55) means that the word order permutation that occurs in order to achieve preverbal placement of the narrowly focused constituent – i.e., displacement of the anaphor – does not disrupt the existing anaphoric dependency between *Bakars* and *tavisi tavi*²⁴ As show in the next section, preverbal and postverbal foci align in this property.

7.2 Postverbal narrow foci: right-adjunction

Recall from Section 4, that, in contrast with many languages of the same typological profile, Georgian also allows for placement of some narrowly focused constituents in the immediately postverbal position (henceforth IPoP), with no discernable interpretational difference. Specifically, narrow foci in replies to WHQs and contrastive foci are often found in the IPoP, as shown in (56) and (57), respectively.²⁵

- (56) ('What did grandma clean yesterday morning?') = (11)
Gušin dila-s bebi-a a-lag-eb-d-a samzareulo-s.
 yesterday morning-DAT grandma.NOM V ER-clean-SF-SM-IPFV.3SG kitchen-DAT
 'Yesterday morning grandma cleaned THE KITCHEN.'
- (57) ('Mariami grew poor last year.') = (13)
Ara, šaršan ga-gharib-d-a Levani.
 no last_year PRV-grow_poor-SM-AOR.3SG L.-NOM
 'No, LEVANI grew poor last year.'

²⁴ Note that the nominal anaphor *tavisi tavi* exhibits more flexibility with respect to word order changes than the possessive anaphor *tavis-*; see Amiridze (2006) for a detailed analysis of both types of anaphors in Georgian.

²⁵ Constituents modified by focus-sensitive particles *even* and *only*, for most speakers, are infelicitous in the IPoP. Other exhaustively interpreted foci (not modified by focus-inducing particles) can appear in the IPoP (Skopeteas & Fanselow 2010; Skopeteas & Féry 2011), which means that the restriction might have to do with pragmatic vs. semantic exhaustivity. At the moment, it is unclear what this restriction stems from.

- (i) %*Manana-m i-q'id-a mxolod vašl-eb-i.*
 M.-ERG VER-buy-AOR.3SG only apple-PL-NOM
 'Manana bought only apples.'

Recall also from Section 4 that there is a strong preference for no other elements to surface postverbally when the IPoP is filled by a narrowly focused constituent. Therefore, as (58) shows, focus in the IPoP, in fact, must be both verb-adjacent and clause-final; violating either of the requirements leads to degraded judgements:

- (58) ('Who did you describe to Bakar?')
- a. *Bakar-s me agh-v-u-c'er-e Marik'a.*
 B.-DAT 1SG PRV-1SG-VER-write-AOR.3SG M.-NOM
 'I described MARIKA to Bakar.' (Lit.: I Marika to.Bakar described.)
- b. *??Me agh-v-u-c'er-e Marik'a Bakar-s.*
 1SG PRV-1SG-VER-write-AOR.3SG M.-NOM B.-DAT
 'I described MARIKA to Bakar.' (Lit.: I Marika to.Bakar described.)
- c. **Me agh-v-u-c'er-e Bakar-s Marik'a.*
 1SG PRV-1SG-VER-write-AOR.3SG B.-DAT M.-NOM
 'I described MARIKA to Bakar.' (Lit.: I Marika to.Bakar described.)

The IPrP and IPoP narrow foci exhibit numerous similarities with respect to phenomena such as binding, quantifier scope, island facts, and interaction of narrow focus with neg-words, which are considered in the remainder of this section. Based on the cumulative evidence, I propose that postverbal foci are (i) adjoined on the right side of the clausal spine, as shown in (59) for the example in (56). The main alternatives to this analysis are the following: (ii) postverbal foci as obtained in a Spec-Head configuration, but with a right-hand specifier, (iii) postverbal foci as interpreted in situ, accompanied by verb raising, which derives the VO word order (in a parallel fashion to the derivation of neutral VO that I adopt).²⁶ The reasons for rejecting these alternative analyses are also provided below.

- (59) [_{CP} Yesterday morning ... [_{VoiceP} grandma ... [_{VP} pro_i cleaned] [_{NP} the kitchen_i]]]

The pieces of evidence that bear on the question are the following. First, consider anaphor binding. Just as binding relations are unaltered when one of the members of the anaphoric relationship is narrowly focused in the IPrP, as was shown in (55), the binding relations are also preserved when either the anaphor (60) or the antecedent (61) is focused in the IPoP. In this respect, narrow foci in the IPoP are identical to preverbal foci, and also to their counterparts in broad focus contexts.

- (60) ('Who did you describe to Bakar?')
- Me Bakar-s_i agh-v-u-c'er-e [tavis-i tav-i]_i.*
 1SG B.-DAT PRV-1SG-VER-write-AOR.3SG 3REFL.GEN.SG-NOM self-NOM
 'I described Bakar to HIMSELF.' (Lit.: I HIMSELF to.Bakar described.)
- (61) ('Who did you describe to himself?')
- Me [tavis-i tav-i]_i agh-v-u-c'er-e Bakar-s_i.*
 1SG 3REFL.GEN.SG-NOM self-NOM PRV-1SG-VER-write-AOR.3SG B.-DAT
 'I described BAKAR to himself.' (Lit.: I himself TO.BAKAR described.)

Second, when it comes to quantifier scope, narrow foci in the IPoP, again, behave in a parallel fashion to narrow foci in the IPrP: that is, they scope under a low adverb such as *seldom*; cf. (44) in the previous section for the parallel IPrP facts.

- (62) ('How many students does the teacher seldom call on?')
- Masc'avlebel-i išviatad mo-u-c'od-eb-s sam-ze nak'leb st'udent'-s.*
 teacher-NOM seldom PRV-VER-call-SF-PRS.3SG three-on less student-DAT
 'The teacher seldom calls on FEWER THAN THREE STUDENTS.'
 (ADV > NUM; * NUM > ADV)

²⁶ Another structural configuration that could potentially derive postverbal foci is the one proposed for postverbal contrastive foci in Basque by Ortiz de Urbina (2002): movement of the narrowly focused constituent to a specifier of the dedicated projection, on the left side of the clausal spine, as with preverbal focus, accompanied by remnant movement of the other clausal material to the left periphery. This approach is not discussed here, for two reasons: first, it relies on parallelism with short movement for preverbal foci, but, unlike in Basque, preverbal foci in Georgian are interpreted in situ; second, it is unclear what would motivate the remnant movement under this approach.

Third, with respect to island constraints, corrective narrow foci placed in the IPoP can be embedded in a strong island, such as a RC, just like preverbal foci:

- (63) ('Marika bought the socks that Nana knitted.')
- | | | | | | |
|------|------------------|-----------------|-------------------|---------------------------------|------------------|
| Ara, | <i>Marik'a-m</i> | <i>i-q'id-a</i> | <i>c'ind-eb-i</i> | [_{RC} <i>romeli-c</i> | <i>mo-ksov-a</i> |
| no | N.-ERG | VER-buy-AOR.3SG | socks-PL-NOM | which-COMP | PRV-knit-AOR.3SG |
- Nini-m*.
N.-ERG
'No, Nana bought the socks that NINI knitted.'

As the examples from binding, quantifier scope, and island facts show, postverbal foci are parallel to preverbal foci in their syntactic properties, which bears on the possible analytical approach to postverbal foci. First of all, this means that option (ii) considered in the beginning of this section, the Spec-Head configuration, is not a plausible analysis for postverbal foci, for the same reasons that it was implausible for preverbal foci. Moreover, the Spec-Head configuration, in order to achieve the right word order, would involve a right-hand specifier – a theoretical concept with a controversial status (Ordóñez 1998; Cinque 2005; Kayne 2013), and one which would only need to be invoked in postverbal focus contexts. However, ruling out a Spec-Head configuration as a possible analysis for postverbal foci does not leave us with just one, in-situ alternative, as was the case for preverbal foci. Instead, there are two possibilities to consider: (i) postverbal foci as adjoined on the right and (iii) postverbal foci as interpreted in situ, accompanied by verb raising, which derives the VO word order.

This is where evidence from the interaction of narrow foci and neg-words comes into play and provides support for the adjunct status of postverbal foci.²⁷ Recall from Section 5.3 that neg-words in utterances containing narrow foci are not allowed to undergo topicalization. This means that a direct object neg-word cannot precede a narrowly focused subject in the IP_rP, as shown in (64):

- (64) ('Who bought nothing today?') = (47)
- | | | | | |
|---------------|------------------|------------------|-----------|-------------------|
| <i>*Dghes</i> | <i>ara-per-i</i> | <i>Mariam-ma</i> | <i>ar</i> | <i>i-q'id-a</i> . |
| today | NEG-thing-NOM | M.-ERG | NEG | VER-buy-AOR.3SG |
- 'MARIAMI bought nothing today.'

In contrast, a postverbal narrowly focused subject is felicitous with a preverbal object neg-word, as demonstrated in (65):

- (65) ('Who bought nothing today?')
- | | | | | |
|--------------|------------------|-----------|-----------------|--------------------|
| <i>Dghes</i> | <i>ara-per-i</i> | <i>ar</i> | <i>i-q'id-a</i> | <i>Mariam-ma</i> . |
| today | NEG-thing-NOM | NEG | VER-buy-AOR.3SG | M.-ERG |
- 'MARIAMI bought nothing today.'

The contrast between (64) and (65) provides crucial support for the right-hand adjunct status of a narrow focus in the IPoP. Let us unpack the evidence. To recap, (64) is infelicitous, because preverbal narrow foci are interpreted in situ, and consequently, placement of object neg-word to the left of the preverbal narrowly focused subject can only result from topicalization of the neg-word, which is ruled out – hence the infelicity. In turn, if (65) were to rely on *Mariamamma* being interpreted in situ, (analytical option (iii) from above), (65) would be expected to be infelicitous too, given that such an analysis would rely on topicalization of *araperi*, just like (64) attempts to. However, (65) is perfectly acceptable. The reason for that, I propose, is that *araperi* in (65) is interpreted in situ, with *Mariamamma* adjoined on the right side of the clausal spine, and resumed by a null pronominal in its thematic position. The syntactic representation of that is provided in (66):

- (66) [_{CP} Today ... [_{VoiceP} [_{VP} *pro*_i ... [_{VP} nothing bought] *Mariami*_i]]

The only plausible analysis for Georgian postverbal foci, therefore, is adjunction on the right. The same strategy has been proposed for postverbal foci in Old High German (Hinterhölzl & Petrova 2018; Fuß 2018) and Early New

²⁷ Some other diagnostics that would allow us to tease apart these two analytical possibilities, unfortunately, are not available in Georgian: for instance, Georgian does not allow sub-extraction, which means that there is no way to use island constraints as a diagnostic.

High German (Bies 1996) – verb-final languages that, like Georgian, and in contrast with most verb-final languages, allow for postverbal foci.

Note also that taking the adjunction approach means that the two focus positions, the preverbal and postverbal ones, may differ in some of their IS properties. This is indeed the case in Georgian, where postverbal foci are associated with an additional sense of speaker confidence, as discussed in Section 4. This latter interpretive component is compatible with the presupposition of existence over the null pronominal co-indexed with the right-adjoined focus: the null pronominal creates an expectation of a closed set, and the right-adjoined focus expression serves as a definitive indication of which element of that set is selected.

Why is there a strong preference for a postverbal narrow focus to be the only element in the postverbal domain? This likely stems from the IS properties of the postverbal domain. Specifically, the syntactic strategy that is used for postverbal placement of narrow foci – right-adjunction – is also used for other, non-focal elements, such as familiarity topics, which may occur in the postverbal domain in other contexts. That is to say, the single strategy that is available in the postverbal domain, right-adjunction, does not discriminate between constituents with different IS statuses. From this perspective, the strong preference for there being no other elements in the postverbal domain if the IPoP is occupied by narrow focus can be explained in the following way. Since, in narrow focus contexts, there is only one strategy for placing elements postverbally, right-adjunction, if the postverbal domain hosts several constituents, there is no way to differentiate them from each other in terms of their IS status. Accordingly, there is no restriction on the number of familiarity topics that can surface postverbally, since they all have the same IS status. In contrast, if both a familiarity topic and a narrowly focused constituent were to occur postverbally, there would be no way to tell them apart. Therefore, there is a preference for postverbal focus to be unaccompanied by any other material, since that is what can give a narrowly focused constituent in the IPoP a certain degree of prominence, by virtue of the fact that it is the only right-adjoined element in the clause. Crucially, the interpretational (as opposed to syntactic) nature of this limitation explains why the generalization “no other postverbal elements in the presence of postverbal focus” is indeed a preference and not a strict rule in Georgian.

The adjunction analysis for postverbal foci proposed here also aligns well with typological and diachronic facts. Postverbal focus placement is not commonly found in verb-final languages, but it is not unprecedented: postverbal contrastively focused constituents are found in Basque, and postverbal new information foci is found in Old High German, Early New High German, and Iron Ossetic. In all these verb-final languages, the constituents that are allowed in the postverbal domain have a particular IS status, such as contrastive or new – as opposed to any kind of a constituent in a broad focus context. Other verb-final languages, such as Turkish, only allow given material to appear in the postverbal domain. Taken together, the Georgian and Turkish evidence suggests that there is more than one way for verb-final languages to allow postverbal constituents: specifically, narrowly focused ones, topical ones, and non-focused/non-topical constituents may be allowed postverbally, depending on a language.

The adjunct status of postverbal foci, however, leaves some questions unanswered. For instance, it is unclear what the preference for postverbal focus to be the only element in the postverbal domain stems from. It is likely, though, that the reason is non-syntactic in nature. Instead, it plausibly stems from the communicative need to make postverbal focus salient; placing it into the postverbal domain by itself is a means to that end; cf. also Skopeteas & Féry (2010) for the prosodic properties of postverbal foci.

8. Wh-phrases and narrow foci in complex clause types

To provide a comprehensive picture of Georgian wh- and narrow focus placement, we also need to take into consideration the distribution of wh-phrases and foci in more complex structures, in addition to simple clauses. This section considers the properties of clauses involving participial complements and embedded nominalizations, as well as in structures with the modal *unda* ‘have to, must’. As the evidence presented here shows, first for wh-phrases, then narrow foci (preverbal and postverbal), these structures can also be straightforwardly accounted for under the current analysis.

8.1 Wh-phrases

Participial complement clauses in Georgian appear with verbs *akvs/h'qavs* 'have'.²⁸ As shown in (67), like ordinary nominal complements, participial complement clauses can either precede or follow the verb.

- (67) a. *Nino-s* [*naq'in-i* *na-q'id-i*] *a-kv-s*.
 N.-DAT ice-cream-NOM PRV-buy-PTCP VER-have-3SG
 'Nino has bought ice-cream.'
- b. *Nino-s* *a-kv-s* [*naq'in-i* *na-q'id-i*] .
 N.-DAT VER-have-3SG ice-cream-NOM PRV-buy-PTCP
 'Nino has bought ice-cream.'

When a wh-question is formed on the basis of a clause with a participial complement, the wh-phrase appears in the IPrP of the verb *akvs/h'qavs* 'have'; the verb, in turn, cannot occur in its clause-final position, as illustrated in (68):²⁹

- (68) a. *Gušin dila-s, ra a-kv-s Nino-s na-q'id-i?*
 yesterday morning-DAT what VER-have-3SG N.-DAT PTCP-buy-PTCP
 'What did Nino buy yesterday morning?'
- b. * *Gušin dila-s, Nino-s na-q'id-i ra a-kv-s?*
 yesterday morning-DAT N.-DAT PTCP -buy-PTCP what VER-have-3SG
 ('What did Nino buy yesterday morning?')
- c. * *Gušin dila-s, Nino-s ra na-q'id-i a-kv-s?*
 yesterday morning-DAT N.-DAT what PTCP -buy-PTCP VER-have-3SG
 ('What did Nino buy yesterday morning?')

These facts fit well with the present analysis: like their simple-clause counterparts, these structures are formed by movement of the wh-phrase out of the participial clause to Spec, PredP, accompanied by movement of the verbs *akvs/h'qavs* 'have' from its clause-final position to Pred⁰. Accordingly, the material that precedes the wh-phrase, as in simple clauses, consists of topicalized phrases, while the material following the fronted verb is found in its base position, as shown in (69):

- (69) [CP Yesterday morning ... [PredP what_i has_j [AppIP Nino ... [VP [PTCP t_i bought] t_j]]]]

The placement of neg-words in clauses with participial complements lends further support for this analysis: here, like in simple clauses, topicalized constituents can precede the wh-phrase, but neg-words can only follow it, as shown in (70):

- (70) a. *Vin h-q'av-s ara-vi-s na-cem-i?*
 who 3SG-have-SF-3SG NEG-who-DAT PTCP-hit-NOM
 'Who has no-one hit?'
- b. * *Ara-vi-s vin h-q'av-s na-cem-i?*
 NEG-who-DAT who 3SG-have-SF-3SG PTCP-hit-NOM
 ('Who has no-one hit?')

²⁸ Georgian has two verbs 'to have', with the present tense third person singular forms *akvs* and *hq'avs*; *akvs* is used with inanimate possessa, and with animate ones. Both verbs can take participial complements. Given that Georgian does not have true infinitives, *masdar* nominalizations are often used as the base form of the verb, even though *masdar* forms may be morphophonologically different from the finite forms – e.g., due to root suppletion, which is very common: e.g. the *masdar* form of *akvs* is *kona*, and the *masdar* of *hq'avs* is *q'ola*. Here, third person singular forms of the present tense paradigm are used as base forms of verbs instead of the *masdar*, in order to allow for easier recognition of the forms in the examples.

²⁹ I thank Stavros Skopeteas and Rusudan Asatiani for generously sharing their thoughts and unpublished notes on the distribution of foci in clauses with participial complements in Georgian, cited here as Skopeteas & Asatiani (2016).

Next, consider wh-questions built on the basis of embedded nominalizations (called *masdars* in the Georgian philological tradition).³⁰ Some examples of embedded nominalizations are provided in (71):

- (71) a. *Rest'oran-ši* [nP *xink'al-is* **č'am-a**]³¹ *m-inda-t*.
 restaurant-in khinkali -GEN eat-NMLZ.NOM 1-want-PL
 'At the restaurant, we want to have khinkali.'
- b. *Levan-i* [nP *mankan-is* **q'id-v-a-s**] *cdil-ob-d-a*.
 L.NOM car-GEN buy-TS-NMLZ-DAT try-SF-SM-IPFV.3SG
 'Levani tried buying a car.'

When a wh-question is formed on the basis of a clause with an embedded nominalization, the whole nominalization surfaces in the IPrP of the matrix verb – in other words, the wh-phrase pied-pipes the rest of the nominalization with it, as shown in (72) and (73):³²

- (72) a. [nP **R-isi** *č'am-a*] *g-inda-t* *rest'oran-ši?*³³
 what-GEN eat-NMLZ 2-want-PL restaurant-in
 'What do you want to eat at the restaurant?'
- b. * **R-isi** *g-inda-t* *č'am-a* *rest'oran-ši?*
 what-GEN 2-want-PL eat-NMLZ restaurant-in
 ('What do you want to eat at the restaurant?')
- (73) a. [nP **R-is** *q'id-v-a-s*] *cdil-ob-s* *Levan-i?*
 what-GEN buy-TS-NMLZ-DAT try-SF-PRS.3SG L.NOM
 'What is Levani trying to buy?'
- b. * **R-is** *cdil-ob-s* *q'id-v-a-s* *Levan-i?*
 what-GEN try-SF-PRS.3SG buy-TS-NMLZ-DAT L.NOM
 ('What is Levani trying to buy?')

³⁰ Only wh-questions with the argument of the *masdar* as the wh-word are considered here, given that adjunct wh-words and those that are arguments of the main verb behave in clauses with embedded nominalizations like they do in simple clauses.

³¹ The case-marking of the nominalization is determined by the embedded verb, like with non-derived nominals.

³² According to Skopeteas & Asatiani (2016), placing the nominalization with an embedded wh-phrase into the IPoP of the matrix verb, as in (i) and (ii), is also acceptable, but this judgement was not confirmed by the Georgian speakers I consulted:

- (i) % *Levan-i* *cdil-ob-s* [nP **r-is** *q'id-v-a-s*]?
 L.NOM try-SF-PRS.3SG what-GEN buy-TS-NMLZ-DAT
 'What is Levani trying to buy?'
- (ii) % *Kote* *muša-ob-s* [nP **r-is** *q'id-v-a-ze*]?
 K.NOM work-TS-PRS.3.SG what-GEN buy-TS-NMLZ-on
 'What is Kote working in order to buy?' (Lit.: 'What is Kote working for buying?')

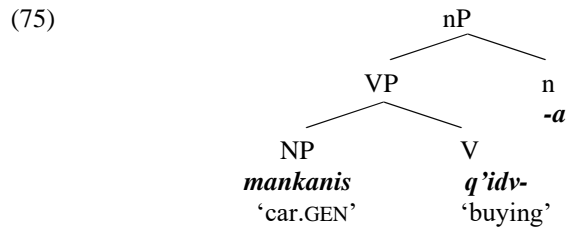
³³ The wh-word *risi* that is used in nominalizations embedded under verbs with modal meaning is different from the expected genitive form of *ra* 'what', *ris*, found in nominalizations embedded under other verbs. However, other wh-phrases in the same context are unambiguously marked for genitive, as *romeli tevzis* 'which fish' in (i); note that *romel-* 'which' is not marked for genitive in the presence of the genitive-marked head noun, and bears a default case marking, which is homophonous with nominative:

- (i) [nP *Romel-i* *tevz-is* *č'ama*] *g-inda-t*?
 which-NOM fish-GEN eat-NMLZ 2-want-PL
 'Which fish do you want to eat?'

Before delving into the properties of wh-questions formed on the basis of nominalizations, let us review the syntactic properties of these constructions. *Masdar* nominalizations do not have independent (transitive) subjects, but they can include a direct object, which surfaces in the genitive case.³⁴

- (74) a. *c'a-svl-a*
PRV-go-NMLZ
'going'
- b. *mankan-is q'id-v-a*
car-GEN buy-TS-NMLZ
'buying of a car'
- c. * *Levan-s/Levan-is/Levani-m mankan-is q'id-v-a*
L.-DAT/L.-GEN/L.-ERG car-GEN buy-TS-NMLZ
'(Levani's buying of a car)'

In structural terms, then, Georgian nominalizations are very small: since they cannot have their own transitive subject, they lack projections other than the VP. Accordingly, I take them to be nPs that embed a VP, as shown in a (simplified) structural representation in (75). The genitive case on the argument of the nominalization is assigned by n^0 ; the impossibility of nominative or ergative case on the argument of the nominalization is due to the absence of higher projections (TP, VoiceP and vP) in nominalizations.



The proposal that Georgian nominalizations are small is corroborated by the fact that only OV and not VO orders are available in nominalizations, as shown in (76), which is expected under the current proposal, given that v^0 , the landing site for the fronted verb in broad-focus VO orders, is missing from the nominalization structure.

- (76) * *q'id-v-a mankan-is*
buy-TS-NMLZ car-GEN
'(buying of a car)'

Furthermore, such an analysis of Georgian nominalizations is also supported by the fact that only low adverbs, such as manner adverbs that adjoin at the VP level, are allowed in nominalizations, as shown in (a) in (77), as opposed to evaluative adverbs that adjoin higher on the clausal spine, as in (b) in (77):

- (77) a. *mankan-is sc'rap'-ad q'id-v-a*
car-GEN quick-ADV buy-TS-NMLZ
'quick buying of a car'
- b. **mankan-is saocr-ad q'id-v-a*
car-GEN surprising-ADV buy-TS-NMLZ
'(surprising buying of a car)'

³⁴ Unaccusative subjects may be found in nominalizations and carry genitive case, like direct objects:

- (i) [_{NP} *Tamad-is da-mtknar-eb-a supra-ze*] *uzrdeloba-a.*
tamada-GEN PRV-yawn-SF-NOM table-on rudeness-be.PRS.3SG
'It is rude for the tamada to yawn at the table.'

(Legate 2008: 66)

Some speakers also allow for indirect objects in nominalizations (Skopeteas & Asatiani 2016), but since judgements vary, indirect objects are not considered here.

We can now turn to the structural properties of wh-questions formed on the basis of embedded nominalizations. As shown in (72) and (73) above, in such wh-questions the whole nominalization is pied-piped to the IPrP of the matrix verb. Analytically, it is therefore logical to assume that in such cases the whole nominalization undergoes movement to Spec, PredP. This aligns with the fact that, cross-linguistically, nominalizations often resist wh-extraction (Ross 1986; Johnson 1988, a.o.). Accordingly, the relevant fragment of the structure of (a) in (73) is provided in (78):

(78) [_{PredP} [_{NP} what.GEN buying]_i tries_j [_{VoiceP} Levani ... [_{VP} t_i t_j]]]

The proposed analysis is also supported by neg-word data: as would be expected, neg-words in wh-questions formed on the basis of embedded nominalizations can only be found to the right of the finite verb, which corresponds to their in-situ placement:

- (79) a. *R-is(i) da-lev-a ar še-u-dzl-i-a ara-vi-s saghamo-s?*
 what-GEN PRV-drink-NMLZ NEG PRV-VER-can-SM-3SG NEG-who-DAT evening-DAT
 ‘What can no-one drink tonight?’
- b. * *Ara-vi-s r-is(i) da-lev-a ar še-u-dzl-i-a saghamo-s?*
 NEG-who-DAT what-GEN PRV-drink-NMLZ NEG PRV-VER-can-SM-3SG evening-DAT
 (‘What can no-one drink tonight?’)

Finally, consider wh-questions that are formed on the basis of clauses containing a non-inflecting deontic/epistemic modal *unda* ‘have to, must’ (not be confused with *unda* ‘want’, which is a fully inflecting verb and has different syntactic properties) and a finite lexical verb. In such utterances, the modal *unda* ‘have to, must’ can only appear clause-medially and not clause-finally, as shown in (80), which suggests that its structural status differs from those of finite verbs, including the verbs *akvs/h’qavs* ‘have’ that embed participial complement clauses.

- (80) a. *Xval P’ragha-ši K’arl-is xid-i unda v-nax-o-t.*
 tomorrow Prague-in Charles-GEN bridge-NOM MOD 1-see-OPT.1-PL
 ‘We have to see Charles Bridge in Prague tomorrow.’
- b. * *Xval P’ragha-ši K’arl-is xid-i v-nax-o-t unda.*
 tomorrow Prague-in Charles-GEN bridge-NOM 1-see-OPT.1-PL MOD
 (‘We have to see Charles Bridge in Prague tomorrow.’)

The fact that *unda* ‘have to, must’ behaves differently from the other verbs is also supported by the fact that it is an invariant form that does not carry any agreement or TAM morphology. These properties of *unda* ‘have to, must’ might suggest an alternative analysis of it as an adverb with a deontic/epistemic meaning, such as *obligatorily* or *necessarily*. Such an analysis, however, is not supported by the evidence – in particular, the distributional properties of negation. The exponents of negation *ar*, *ver* and *nu* act as proclitics to verbs in Georgian, but not any other constituents, which means that even contexts in which negation, semantically, scopes over one of the verbal arguments, syntactically, this can only be expressed via negating the verb. This is illustrated in (81).

- (81) a. * *Mariam-ma i-q’id-a ar banan-eb-i magram vašl-eb-i.*
 M.-ERG VER-buy-AOR.3SG NEG banana-PL-NOM but apple-PL-NOM
 (‘Mariami bought not bananas but apples.’)
- b. *Mariam-ma ar i-q’id-a banan-eb-i, man i-q’id-a*
 M.-ERG NEG VER-buy-AOR.3SG banana-PL-NOM 3SG.ERG VER-buy-AOR.3SG
vašl-eb-i.
 apple-PL-NOM
 (‘Mariami didn’t buy bananas, she bought apples.’)

The modal *unda* ‘have to, must’ can be preceded by an exponent of negation, which supports its status of a modal (i.e., verb-like) head, as opposed to an adverb, as shown in (82):

- (82) *Is ar unda ga-xd-e-s p'rezident'-i.*
 3SG NEG MOD PRV-become-OPT-3SG president-NOM
 'He should not become a president.'

Another alternative analysis of *unda* 'have to, must' would be to treat it as part of the verb – for instance, as a preverb with modal meaning. However, the evidence against this approach comes from the fact that other material may intervene between *unda* 'have to, must' and the lexical verb, as demonstrated in (83). Based on these pieces of evidence, I conclude that *unda* 'have to, must' is an independent, morphologically invariant modal.³⁵

- (83) *Šen unda axla uk've upro k'argad cer-d-e kartulad.*
 2SG MOD now already more well write-SM-SUBJ.2SG Georgian.ADV
 'Actually, you should already write better in Georgian' (cf. also Tschenkeli 1958: 177–178)

When a wh-question is formed on the basis of clause with *unda* 'have to, must', the wh-phrase obligatorily occupies the IPrP of the modal, as shown in (84). In this respect, wh-questions formed on the basis of these constructions differ from other wh-questions, in that the wh-phrase is found in the IPrP of an element other than the finite/lexical verb.

- (84) a. *Ra unda v-nax-o-t P'ragha-ši?*
 what MOD 1-see-OPT.1-PL Prague-in
 'What do we have to see in Prague?'
 b. * *P'ragha-ši unda ra v-nax-o-t?*
 Prague-in MOD what 1-see-OPT.1-PL
 ('What do we have to see in Prague?')

Building on van Dooren (2017), I take *unda* 'have to, must' to be generated in AuxP, a dedicated projection commanded by PredP. Like in all clausal projections, Aux⁰ is located to the left of the clausal spine, since the default position for *unda* 'have to, must' is clause-medial, as opposed to clause-final. When a wh-question is formed on the basis of such a structure, the wh-phrase undergoes movement to Spec, PredP, and *unda*, correspondingly, is raised to Pred⁰. The relevant portion of the derivation of the resulting structure is provided in (85), based on (a) in (80):

- (85) [_{PredP} what_i must_j [_{AuxP} t_j [_{VoiceP} pro ... [_{VP} t_i see]_{PP} in Prague]]]]?

As would be expected, neg-words in such constructions cannot be found to the left of wh-phrases, as exemplified in (86):³⁶

- (i) % *Ra unda me da-v-c'er-o?*
 what MOD 1SG PRV-1-write-OPT.1SG
 'What do I have to write?'
 (ii) % *Šen unda upro čkara c'er-o.*
 2SGMOD more fast write-OPT.1SG
 'You have to write faster.'

For the speakers who require adjacency between *unda* 'have to, must' and the lexical verb, *unda* may act as a proclitic to the verb or be head-adjoined to it, akin to the behavior of the exponent of verbal negation. Accordingly, for these speakers, the *unda* 'have to, must' + lexical verb unit would act as a single constituent.

³⁶ Contrary to prediction, however, preferred placement of neg-words in wh-questions formed on the basis of utterances containing *unda* 'have to, must' is after the finite verb, as opposed to sandwiched between the modal and the verb:

- (86) **Ara-vin ra ar unda nax-o-s P'ragha-ši?*
 NEG-who what NEG MOD see-OPT-3SG Prague-in
 ('What does no-one have to see in Prague?')

Overall, then, the analysis of wh-phrases as raising to Spec, PredP, accompanied by movement of the verb, readily accounts for the distribution of wh-phrases in more complex clause-types as well.

8.2 Preverbal narrow foci

As was the case for wh-phrases in the preceding section, preverbal narrow foci found in more complex structures can be accounted for in the same way as preverbal narrow foci in simple clauses discussed in Section 7.1. In what follows, narrow foci in clauses with participial complements and embedded nominalizations, as well as those containing the invariant modal *unda* 'have to, must' are considered; the counterparts of the same constructions containing postverbal foci are addressed in Section 8.3.

First, consider narrow foci in clauses with participial complements. In such constructions, narrow foci are commonly found in the IPrP of the verb *akvs/h'qavs* 'have', extracted from the participial complement of the verb, with the participial complement either placed in the postverbal domain or (partially) topicalized, as shown in (87). Contrastive foci and those modified by focus-inducing particles, if found in the preverbal domain, have the same distribution.

- (87) ('Who has hit Giorgi?')
- a. *Mariam-s h-q'-av-s [Giorg-i na-cem-i].*
 M.-DAT 3SG-have-SF-3SG G.-NOM PTCP-hit-PTCP
 'MARIAMI has hit Giorgi.'
- b. *Giorg-i Mariam-s h-q'-av-s na-cem-i.*
 G.-NOM M.-DAT 3SG-have-SF-3SG PTCP-hit-PTCP
 'MARIAMI has hit Giorgi.'

The same analysis that was proposed for preverbal narrow foci in simple clauses applies to their counterparts in clauses with participial complements: here, too, preverbal foci are found in situ. This is illustrated in (88) for (b) in (87):

- (88) [CP Giorgi_i ... [AppIP Mariam [VP has [PtCP t_i hit]]]].

Next, consider the distribution of narrow foci in clauses with embedded nominalizations. Here, the preferred option is for the nominalization containing narrow focus to appear in the IPrP of the matrix verb (though nominalizations containing narrow foci can also occur in the IPoP of the verb – more on this in Section 8.3). What is ruled out is placement of the narrow focus alone, without the rest of the nominalization, into the IPrP of the matrix verb. This is illustrated in (89) and (90).

-
- (i) a. ??*Ra ar unda ara-vin nax-o-s P'ragha-ši?*
 what NEG MOD NEG-who see-OPT-3SG Prague-in
 'What does no-one have to see in Prague?'
- b. *Ra ar unda nax-o-s ara-vin P'ragha-ši?*
 what NEG MOD see-OPT-3SG NEG-who Prague-in
 'What does no-one have to see in Prague?'

This is likely related to the preference for no other material to surface between *unda* 'have to, must' and the lexical verb, as per fn. 35. Note that that is a preference and not a requirement, given that some examples, with other lexical material intervening between *unda* 'have to, must' and the lexical verb are felicitous. I am leaving the relationship that *unda* 'have to, must' and the lexical verb have for further research; note that nothing in the current account hinges on whether *unda* 'have to, must' undergoes movement to Pred⁰ by itself or accompanied by the verb (as a result of a syntactic or phonological process).

- (89) ('What do you want to eat at the restaurant?')
- a. [***Tevz-is*** *č'am-a*] *m-inda* *rest'oran-ši*.
 fish-GEN eat-NMLZ 1-want restaurant-in
 'I want to eat FISH at the restaurant.'
- b. * ***Tevz-is*** *m-inda* *č'am-a* *rest'oran-ši*.
 fish-GEN 1-want eat-NMLZ restaurant-in
 ('I want to eat FISH at the restaurant.')
- (90) ('What is Levani trying to buy?')
- a. *Levan-i* [***mankan-is*** *q'id-v-a-s*] *cdil-ob-s*.
 L.-NOM car-GEN buy-TS-NMLZ-DAT try-SF-PRS.3SG
 'Levani is trying to buy A CAR.'
- b. * *Levan-i* ***mankan-is*** *cdil-ob-s* *q'id-v-a-s*.
 L.-NOM car-GEN buy-TS-NMLZ-DAT try-SF-PRS.3SG
 ('Levani is trying to buy A CAR.')

Examples (89) and (90) might suggest that narrow foci in preverbal nominalizations behave like *wh*-phrases, and, accordingly, should have the same structural representation (derived via short A-bar movement). However, in contrast with what we have seen with *wh*-phrases in such contexts, postverbal placement of a nominalization containing narrow focus is readily accepted by Georgian speakers, as shown in Section 8.3. Such variability in placement suggests that the Spec-Head derivation, which is the mechanism underlying *wh*-phrases embedded in nominalizations, does not account for the narrow focus data in the structures of the same type. If it did, we would be forced to postulate optionality of movement of narrow foci-containing nominalizations to Spec, PredP, and that would be analytically undesirable; in particular, if only some foci underwent movement, it would be unclear what motivates movement or lack thereof.

On the contrary, it is analytically more congruent for foci embedded in nominalizations to receive treatment parallel to that advocated for preverbal and postverbal foci in simple clauses. The in-situ analysis for narrow foci, advocated here, can readily account for the distribution of preverbal narrow foci in embedded nominalizations: when embedded under a finite verb and found in its IPrP, they are interpreted in situ, as shown in (91) in the relevant portion of the structure corresponding to (a) in (90):

- (91) [CP Levani_i ... [VoiceP t_i ... [VP [_{NP} buying of a car] tries]]].

Finally, consider preverbal narrow foci in clauses that consist of the non-inflecting modal verb *unda* 'have to, must' and a finite lexical verb. In these constructions, preverbal narrow foci (of all types, as in the previous cases) are found in the IPrP of the modal, as shown in (92):

- (92) ('What do we have to see in Pargue?')
- P'ragha-ši* ***K'arl-is*** *xid-i* *unda* *v-nax-o-t*.
 Prague-in Charles-GEN bridge-NOM MOD 1-see-OPT.1-PL
 'We have to see CHARLES BRIDGE in Prague.'

Recall from the discussion of *wh*-questions formed on the basis of constructions with *unda* 'have to, must' in Section 8.1 that *unda* 'have to, must' originates in Aux⁰ and, in *wh*-questions, undergoes movement to Pred⁰, with the *wh*-phrase surfacing in its specifier. As (92) shows, narrow foci in such constructions, distributionally, behave like *wh*-phrases (alternatively, they also may be found in the clause-final position).

Analytically, the in-situ approach to narrow foci in clauses with *unda* 'have to, must' is impossible, given the high placement of the modal in the clause. Therefore, the most parsimonious analysis of these structures would involve exceptional movement of a narrowly focused constituent to Spec, PredP, accompanied by movement of *unda* 'have to, must' to Pred⁰, as shown in (93).³⁷ In this, narrow foci in constructions with *unda* 'have to, must' differ from narrow foci in all other contexts, which do not undergo movement to Spec, PredP.

³⁷ Alternatively, *unda* 'have to, must' may be viewed as being part of the verb, via cliticization or head-adjunction, by the default, as was suggested in fn. 35 and 36. Neither of the analyses is entirely satisfactory, however. The present analysis of *unda* 'have to,

(93) [CP [PP In Prague] ... [PredP [NP Charles Bridge]_i must ... [VP pro [VP t_i see]]]].

To sum up, the evidence presented in this section shows that the in-situ analysis is also applicable to preverbal narrow foci in utterances with participial complements, and those placed into embedded nominalizations. In contrast with other preverbal foci, and pending further evidence, I take narrow foci in clauses with the invariant modal *unda* ‘have to, must’ to be derived in the same way as wh-phrases in these constructions: via short A-bar movement.

8.3 Postverbal narrow foci

The analysis of postverbal foci as adjuncts, proposed here for postverbal narrow foci in simple clauses, also fits well with the distribution of postverbal foci in more complex clause types: clauses with participial complements and embedded nominalizations, as well as those with the modal *unda* ‘have to, must’. The remainder of this section addresses postverbal foci in these clause types.

In clauses with participial complements, there are, in fact, several types of foci that may be described as ‘postverbal’. Specifically, narrow foci may be placed in the IPoP of the verb *akvs/h’qavs* ‘have’, either in its clause-medial or clause-final position, or the IPoP of the participle (which is also the absolutely final position in the clause), as shown in (94):

- (94) (‘Who has hit Giorgi?’)
- a. *Giorg-i h-q’-av-s Mariam-s na-cem-i.*
 G.-NOM 3SG-have-SF-3SG M.-DAT PTCP-hit-PTCP
 ‘MARIAMI has hit Giorgi.’
- b. *Giorg-i h-q’-av-s na-cem-i Mariam-s.*
 G.-NOM 3SG-have-SF-3SG PTCP-hit-PTCP M.-DAT
 ‘MARIAMI has hit Giorgi.’
- c. *Giorg-i na-cem-i h-q’-av-s Mariam-s.*
 G.-NOM PTCP-hit-PTCP 3SG-have-SF-3SG M.-DAT
 ‘MARIAMI has hit Giorgi.’

The same is true for contrastive foci: IPoP placement with respect to *akvs/h’qavs* ‘have’ in its clause-medial position is felicitous, while clause-final placement, either to the right of the verb *akvs/h’qavs* ‘have’ or the participle, is less so, as shown in (95).

- (95) (‘Dato has hit Gurami.’)
- a. *Ara, Guram-i h-q’-av-s Mariam-s na-cem-i.*
 no G.-NOM 3SG-have-SF-3SG M.-DAT PTCP-hit-PTCP
 ‘No, MARIAMI has hit Gurami.’
- b. ? *Ara, Guram-i h-q’-av-s na-cem-i Mariam-s.*
 no G.-NOM 3SG-have-SF-3SG PTCP-hit-PTCP M.-DAT
 ‘No, MARIAMI has hit Gurami.’
- c. ? *Ara, Guram-i na-cem-i h-q’-av-s Mariam-s.*
 no G.-NOM PTCP-hit-PTCP 3SG-have-SF-3SG M.-DAT
 ‘No, MARIAMI has hit Gurami.’

must’ as an invariant modal accounts well for the data in Tschenkeli (1958) and for the judgements of those speakers that do not require adjacency between *unda* ‘have to, must’ and the verb. The alternative analysis of *unda* as part of the verb would account for the impossibility of clause-final placement of *unda* and judgements of those speakers for whom the adjacency between *unda* and the verb is required. The latter approach would also make an in-situ analysis of preverbal foci in clauses with *unda* ‘have to, must’ possible, and would not involve exceptional movement. Overall, the distributional and structural properties of *unda* ‘have to, must’ require further investigation.

Finally, foci modified by focus-inducing particles such as *mxolod* ‘only’ and *-ac k’i* ‘even’ can be found in the IPoP of the verb *akvs/h’qavs* ‘have’ in its clause-medial position, but they resist being placed clause-finally, either in the IPoP of the participle or the verb, as illustrated in (96):

- (96) a. *Kote h-q’-av-s mxolod Maria-s na-cem-i.*
 K.NOM 3SG-have-SF-3SG only M.-DAT PTCP-hit-PTCP
 ‘Only Maria has hit Kote.’ (Skopeteas & Fanselow 2010: 1388)
- c.??? *Kote h-q’-av-s na-cem-i mxolod Maria-s.*
 K.NOM 3SG-have-SF-3SG PTCP-hit-PTCP only M.-DAT
 ‘Only Maria has hit Kote.’
- d.??? *Kote na-cem-i h-q’-av-s mxolod Maria-s.*
 K.NOM PTCP-hit-PTCP 3SG-have-SF-3SG only M.-DAT
 ‘Only Maria has hit Kote.’

The distribution of postverbal foci in clauses with participial complements is easily accounted for under the current approach. Specifically, in those cases where narrow focus is ‘sandwiched’ between the verb *akvs/hq’avs* ‘have’ and the participle – examples (a) in (94)-(96) – the verb *akvs/hq’avs* ‘have’ is found in situ, with postverbal focus adjoined on the right. The participial complement, in turn, is also adjoined on the right, given its status of a (familiarity) topic in the context of narrow focus. The structural representation of (a) in (94) is provided in (97):

- (97) [CP Giorgi_i ... [AppIP PRO_k [VP PRO_i has] [NP Mariami_k] [PTCP_P t_j hit]]]

The ordering of adjuncts in the postverbal domain is predicted to be free – therefore, from the point of view of the current analysis, it is not surprising that the examples (b) in (94)-(96) are also possible: in them, the order of postverbal adjuncts is the opposite from that found in (97). This is illustrated in (98):

- (98) [CP Giorgi_i ... [AppIP PRO_k [VP PRO_i has] [PTCP_P t_j hit] [NP Mariami_k]]]

Finally, as examples (c) in (94)-(96) show, the narrowly focused constituent may be found in the absolutely clause-final position, following *akvs/hq’avs* ‘have’, which itself follows the participle. Such a construction is derivationally simpler than the preceding two, with the verb and the participial complement both found in their base positions, and with the narrowly focused constituent adjoined on the right side of the clausal spine. This is shown in (99):

- (99) [CP Giorgi_i ... [AppIP PRO_k [VP [PTCP_P t_j hit] has] [NP Mariami_k]]]

The various word orders found with postverbal foci in clauses with participial complements, then, result from the interplay of two factors: in-situ interpretation or right-adjunction of the narrow focus, and in-situ interpretation or adjunction of the (remnant of) the participial phrase. The analysis proposed here is also supported by neg-word data: in clauses with participial complements neg-words are found in the IPrP of the verbs *akvs/h’qavs* ‘have’, which corresponds to their in-situ placement:

- (100) a. *Nik’o-s ara-vin h-q’-av-s na-cem-i sk’ola-ši.*
 N.-DAT NEG-who 3SG-have-SF-3SG PTCP-hit-NOM school-in
 ‘Niko hasn’t hit anyone at school.’
- b. * *Nik’o-s h-q’-av-s sk’ola-ši ara-vin na-cem-i.*
 N.-DAT 3SG-have-SF-3SG school-in NEG-who PTCP-hit-NOM
 (‘Niko hasn’t hit anyone at school.’)
- c. * *Ara-vi-s Nik’o h-q’-av-s na-cem-i sk’ola-ši.*
 NEG-who-DAT N.NOM 3SG-have-SF-3SG PTCP-hit-NOM school-in
 (‘No-one has hit Niko at school.’)

Next, consider narrow foci embedded in nominalizations. Section 8.2 showed that, when the argument of the nominalization is narrowly focused, the whole nominalization appears in the IPrP of the main verb of the clause (i.e. the narrowly focused constituent cannot be extracted from it). However, in addition to that, a nominalization

containing narrow focus can also appear postverbally; this holds for all types of focus, and is illustrated for new information focus in (101):

- (101) ('What do you want to eat at the restaurant?')
- a. *Rest'oran-ši m-inda [tevz-is č'am-a].*
 restaurant-in 1-want fish-GEN eat-NMLZ
 'I want to eat FISH at the restaurant.'
- b. * *Tevz-is m-inda č'am-a rest'oran-ši.*
 fish-GEN 1-want eat-NMLZ restaurant-in
 ('I want to eat FISH at the restaurant.')

The same right-adjunction analysis that we have seen in other cases is easily applicable to narrow foci embedded in nominalizations, with the nominalization surfacing postverbally: structurally, this means that such nominalizations are adjoined on the right, as shown in (102) for the relevant portion of (a) in (101):

- (102) [VoiceP pro ... [VP [VP pro_i want] [nP fish eat]_i]]

Finally, consider postverbal foci in clauses with the invariant modal *unda* 'have to, must'. Here, the distributional generalization for postverbal foci of all types is the following: they can appear clause-finally, following the finite verb, but focus placement in the IPoP of the clause-medial modal (i.e. 'sandwiched' between the modal and the finite verb) is judged as less felicitous, though it is not completely out. This is shown for new information foci in (103):

- (103) ('What do we have to see in Pargue?')
- a. *??P'ragha-ši unda K'arl-is xid-i v-nax-o-t.*
 Prague-in MOD Charles-GEN bridge-NOM 1-see-OPT.1-PL
 'We have to see CHARLES BRIDGE in Prague.'
- b. *P'ragha-ši unda v-nax-o-t K'arl-is xid-i.*
 Prague-in MOD 1-see-OPT.1-PL Charles-GEN bridge-NOM
 'We have to see CHARLES BRIDGE in Prague.'

Analytically, clause-final foci in such constructions can also easily be modelled as right-adjunction. This is shown in (104) for (a) in (103):

- (104) [CP In Prague ... [AuxP must [VP pro [VP [VP pro_i see] [NP Charles Bridge]_i]]]]].

It is less clear where the dispreference for placing foci in the IPoP of the modal comes from, though it is likely to have the same source as the dispreference for any other material intervening between *unda* 'have to, must' and the lexical verb that was highlighted before.

Overall, the narrow focus data in more complex clauses, like in simple ones, calls for several syntactic implementations. Specifically, preverbal narrow foci rely on the in-situ interpretation, while postverbal ones are adjoined in the postverbal domain. Finally, preverbal foci in clauses with *unda* 'must, have to' cannot rely on the in-situ strategy, and, instead, have to rely on the Spec-Head configuration.

9. Conclusions

The distributional and structural properties of narrow foci and wh-phrases in Georgian, discussed in this paper, have significant import for the analytical approaches to the syntax of focus – in particular, the expression of focus in languages that have a requirement/strong preference for narrowly focused constituents/wh-phrases to be adjacent to the verb. Most importantly, the Georgian data shows that, within a single language, linear adjacency between the elements in the IPrP and the verb may follow from different syntactic configurations. In particular, there are two main structural mechanisms that may be used to ensure adjacency: a Spec-Head configuration and an in-situ strategy coupled with displacement of the intervening material. As shown in Sections 6 and 7, both are employed in Georgian. This means that the apparent IPrP is not a uniform syntactic position, and what appears to be a position immediately adjacent to the verb is structurally ambiguous.

One of the diagnostics used here for establishing the syntactic status of wh-phrases and narrow foci is their interaction with neg-words. This appears to be a unique tool that Georgian offers, since, in this language, neg-words

also have an IPrP-placement requirement, while at the same time being found in their in-situ positions. When co-occurring with wh-phrases or narrow foci, neg-words can surface in positions other than the IPrP, but the fact that their placement corresponds to their in-situ position can be used as a tool for determining the positions of other elements.

Let us recap the main findings with respect to the IPrP. In simple clauses, preverbal narrow foci are interpreted in situ, and their adjacency with the verb is achieved via displacement of the would-be intervening material. Wh-phrases, in contrast, undergo short A-bar movement to Spec, PredP, accompanied by raising of the verb to Pred⁰, which also results in adjacency between the two elements. The same strategies are at work for the respective types of constituents – preverbal narrow foci and wh-phrases – in clauses with participial complements. When either a wh-word or a preverbal narrow focus is found in an embedded nominalization, the focus/wh-containing nominalization behaves like the type of the constituent that it embeds: nominalizations containing wh-phrases undergo movement to Spec, PredP, accompanied by movement of the verb to Pred⁰, while nominalizations containing narrow foci are interpreted in situ. In constructions with the modal *unda* ‘have to, must’ and a finite verb, wh-phrases are found in Spec, PredP, accompanied by movement of the modal to Pred⁰. The same holds for preverbal foci, which means that the behavior of preverbal narrow foci in clauses with accompanied by movement of the modal to Pred⁰ contrasts with the in-situ interpretation of preverbal foci in all other constructions. An alternative analysis of *unda* ‘have to, must’ as part of the verb, which would allow for an in-situ analysis of preverbal foci with the modal, also has its drawbacks, but it deserves further exploration.

One of the most important take-aways from the conclusion that preverbal foci and wh-phrases in Georgian do not have the same syntax is that these two phenomena are not as closely related as is often hypothesized. The evidence presented here, therefore, falls in line with Cable’s (2008) analysis of wh-phrases and narrow foci in Hungarian, built on Horvath (1986), according to which the relationship between wh-questions and narrow focus in Hungarian is more indirect than is often assumed: in particular, preverbal placement of wh-phrases cannot be triggered by the same feature that ensures the same for narrow foci. The Georgian data provides further support for the hypothesis that preverbal placement of wh-phrases and narrow foci are not syntactically uniform. The structural analysis presented here also shows that immediately preverbal placement of narrow foci/wh-phrases is not derived uniformly in languages that have this requirement/preference. Both strategies discussed in this paper, the Spec-Head configuration and the in-situ interpretation coupled with topicalization, have been invoked in the literature before. Further still, for some languages, such as Basque, both types of analyses exist (Ortiz de Urbina 1989; 1994; 2002; Arregi 2002), with hybrid approaches, that integrate the two strategies, also available (Elordieta 2001). The analysis of focus and wh-words in Georgian advanced here is thus similar to the latter.

In addition to preverbal focus placement, Georgian also allows for narrow foci to appear in the IPoP, which is not typically allowed in OV languages, though not unprecedented. Preverbal and postverbal foci are parallel in their interpretative and syntactic properties, but vary with respect to their interaction with neg-words. Analytically, I showed that the adjacency between the verb and narrow foci in the IPoP relies on right-adjunction. In addition to the IPoP-requirement, there is also a strong preference for a postverbal narrow focus to be the only element in the postverbal domain. This likely stems from the IS properties of the postverbal domain, as opposed to being a syntactic restriction.

Overall, the current findings give rise to the following question: why is it that the requirement for wh/focus-verb adjacency is a recurrent theme in verb-final languages, especially if it does not rely on the same syntactic means? The hope is that future work on the topic can bring us closer to providing an answer it.

Appendix 1. Structural status of topicalized constituents

1. Left-periphery topics

This Appendix is dedicated to the distributional and structural properties of topical constituents that appear in the left and right peripheries in Georgian. As discussed in Section 5.1., left-peripheral topics can be interpreted as contrastive or familiarity ones. Here, I show that the two types of topics do not differ in most of their syntactic properties, which supports the idea that the interpretational distinction found between them does not result from different syntax but is instead rooted in information structure and /or pragmatics. Structurally, as this Appendix shows, both types of left-peripheral topics may come to occupy their position in the left periphery via movement, though, even if they do, there is no unequivocal evidence as to whether this is A or A-bar movement.

With respect to how topicalized constituents come to occupy their position in the CP, first, we can exclude an analysis of such constituents in Georgian as hanging topics (Cinque 1977; Benincà 2001; Frascarelli 2007), which are typically viewed as base-generated in their left-peripheral position (Cinque 1990; Anagnostopoulou 1997, a.o.). This is because the properties of topicalized constituents in Georgian do not match the profile of hanging topics, which typically have a looser connection with the clause that they are associated with: they may not be an argument of the verb, may not have case connectivity, and are typically followed by a sharp intonational break – cf. e.g. hanging topics in Mandarin Chinese (Chafe 1976); none of that obtains in Georgian, however.

The fact that hanging topics are excluded from the picture does not mean that base-generation as the mechanism that underlies topicalization in Georgian is unavailable. This is because there is no agreement in the literature whether other topicalization phenomena, usually addressed in the context of left dislocation and clitic left dislocation, rely on movement or base-generation (Cinque 1977; Mahajan 1990; Demirdache 1991; Kayne 1994; Iatridou 1994; Anagnostopoulou 1994; Sportiche 1996; Dobrovie-Sorin 1997).

To complicate matters further, some diagnostics for movement or base generation do not produce reliable results in Georgian. Consider scope facts; contrastive topics in Georgian exhibit a strong preference for wide scope interpretation, which is typical of topics in general (cf. Gundel 1988; Molnár 1993; Erteschik-Shir 2007 on topics taking wide scope). In particular, the (B) reply in (105) is more naturally interpreted as meaning that all students in the class are learning the same two languages (say, Georgian and English), as opposed to each learning two different languages (say, Givi is learning Georgian and English, Marika is learning Spanish and Russian, etc.). The same is true of the question (A) in (105), too. A structural representation of the reply from the exchange in (105) is provided in (106).

- (105) A: *Or ena-s vin sc'avl-ob-s am k'las-ši?*
 two language-DAT who study-SF-PRS.3SG this class-in
 'Who studies two languages in this class?'
 B: *Or ena-s q'ovel-i st'udent'-i am k'las-ši sc'avl-ob-s.*
 two language-DAT all-NOM student-NOM this class-in study-SF-PRS.3SG
 'EVERY STUDENT in this class studies two languages.'
 (NUM > EVERY; ???EVERY > NUM)

- (106) [CP [NP *two languages*]_i ... [VoiceP *each student* [VP [VP *t_i studies*]]]]

The strong preference for wide scope reading of contrastive topics might suggest that such topics are base-generated high in the structure. In Georgian, however, there is a general preference for surface scope readings, which means that the scope facts illustrated in (105) and (106) do not provide definitive evidence about the structural position of topicalized constituents.

Familiarity topics exhibit more flexibility with respect to the available scope readings, as shown in (107). Here, both the reading where all students are learning two particular languages (say, Spanish and Greek; NUM > EVERY), and one where each student is learning two languages, but they may vary from student to student (EVERY > NUM) may be available. This may suggest that the familiarity topic *or enas* 'two languages' came to occupy its clause peripheral position via movement and can reconstruct for scope purposes.

- (107) A: *Am c'el-s, or ena-s vin sc'avl-ob-s?*
 this year-DAT two language-DAT who study-SF-PRS.3SG
 'This year, who studies two languages?'
 B: *Am c'el-s, or ena-s q'oveli st'udent'-i sc'avl-ob-s.*
 this year-DAT two language-DAT every-NOM student-NOM study-SF-PRS.3SG
 'This year, EVERY STUDENT studies two languages.'
 (NUM > EVERY; EVERY > NUM)

Sensitivity to island constraints does not produce uniform results either: complex NP islands do not block topicalization, as shown in (108), while adjunct clause islands do, as illustrated in (109) (cf. Aoun & Benmamoun 1998 for Lebanese Arabic):

- (108) ('Who bought a car last year?')
- Mankana ar v-i-c-i, magram bina, ga-v-i-g-e*
 car.NOM NEG 1SG-VER-know-PRS.1SG but apartment.NOM PRV-1SG-VER-hear-AOR.1SG
 [NP č'or-i, rom Marik'a-m i-q'id-a šaršan].
 rumor-NOM COMP M.-ERG VER-buy-AOR.3SG last_year
 'I don't know about a car, but I heard a rumor that MARIKA bought an apartment last year.'
- (109) ('Who left without speaking to Marika?')
- **Me ga-v-i-g-e, rom Marik'a-s-tan, šen c'a-x-ved-i*
 1SG PRV-1SG-VER-hear-AOR.1SG COMP M.-DAT-with 2SG PRV-2-go-AOR.2SG
da-u-lap'arak'-eb-lad.
 PRV-VER-speak-SF-PTCP
 ('I heard that, [as for] Marika, YOU left without speaking to her.)

The examples above, therefore, do not provide strong evidence about whether or not movement is involved in topicalization in Georgian. Even if we assume, for the sake of the argument, that it is, the type of movement at hand would be hard to establish, given that topicalized constituents exhibit some contradictory properties. Consider first the question of long-distance topicalization. If available, it would signal A-bar movement-like properties of topicalization in Georgian; if not, it could suggest that topicalization relies on a non-A-bar process, such as A-movement.³⁸ When it comes to long-distance (contrastive) topicalization, Georgian speakers diverge in their judgements about its felicity. This is illustrated in (110), where *abazanas* 'bathroom' is raised past a matrix verb *tkva* 'said', which, as a bridge verb, may facilitate extraction from an embedded clause (Erteschik-Shir 2006), and (111), where the matrix verb *c'amoidzaxa* 'exclaimed' is a non-bridge one. Both (110) and (111) receive variable acceptability judgements. The discrepancy in judgements, therefore, does not allow for these facts to be used as a diagnostic for whether A- or A-bar movement underlies displacement into the left periphery in Georgian.

- (110) ('And how about the bathroom? Who cleaned it?')
- %*Abazana-s ar v-i-c-i, magram samzareulo-si Nino-m*
 bathroom-DAT NEG 1-VER-know-PRS.1SG but kitchen-DAT N.-ERG
tkv-a [CP (rom) bebia ___i a-lag-eb-d-a].
 say-AOR.3SG COMP grandma.NOM PRV-clean-SF-SM-IPFV.3SG
 'I don't know about the bathroom, but the kitchen, Nino said that GRANDMA cleaned it.'
- (111) ('And how about the bathroom? Who cleaned it?')
- % *Abazana-s ar v-i-c-i, magram samzareulo-si Nino-m*
 bathroom-DAT NEG 1-VER-know-PRS.1SG but kitchen-DAT N.-ERG
c'amo-i-dzax-a [CP (rom) bebia ___i a-lag-eb-d-a].
 PRV-VER-exclaim-AOR.3SG COMP grandma.NOM PRV-clean-SF-SM-IPFV.3SG
 'I don't know about the bathroom, but the kitchen, Nino exclaimed that GRANDMA cleaned it.'

In addition to variability in judgements with respect to long-distance topicalization, left-periphery topics in Georgian variably exhibit properties indicative of A-scrambling (cf. also Amiridze 2006; McGinnis 1999a; 1999b), or A-bar movement. First, consider the evidence in favor of A-scrambling as underlying topicalization. As the name suggests, A-scrambling is a subtype of A-movement, given that it can create new antecedents for binding; it is also often held to be clause-bounded (Mahajan 1990; Miyagawa 1997; 2003; 2005). The availability of A-scrambling in Georgian with the possessive anaphor *tavisi* '3SG.POSS.REFL' has been discussed by McGinnis (1999a; 1999b) and Amiridze (2006). In particular, a subject that contains *tavisi* '3SG.POSS.REFL' can be bound by a scrambled direct

³⁸ This diagnostic crucially relies on an assumption that A-bar movement is not clause-bound, while A-movement is. This assumption itself maybe called into question, though. While A-movement is typically clause-bound, cross-clausal A-movement has been shown to exist in a number of languages, including Brazilian Portuguese, Turkish, and Nez Perce (Wurmbrand to appear); at the same time, while A-bar movement is known to cross clausal boundaries, some languages, such as Tsez, only allow clause-bounded A-bar movement (Polinsky 2015).

object, as shown in (112), which manifests the A-movement nature of such scrambling (since it leads to a new binding relationship).³⁹

- (112) a. * **Tavis-i** *deida* **Nino-si** *xat'-av-s.*
 3REFL.GEN.SG-NOM aunt.NOM N.-DAT draw-SF-PRS.3SG
 ('Her_i aunt is drawing Nino_i.')
- b. **Nino-s** **tavis-i** *deida* *xat'-av-s.*
 N.-DAT 3REFL.GEN.SG-NOM aunt.NOM draw-SF-PRS.3SG
 'Her_i aunt is drawing Nino_i.' (McGinnis 1999a: 283)

McGinnis (1999a) does not comment on the IS properties of the felicitous utterance in (112),⁴⁰ but the most natural interpretation of an OSV word order in Georgian is narrow focus on the subject constituent. That is to say, the most natural communicative context for (112) is provided in (113), with *tavis-i deida* 'her aunt' carrying narrow focus, and *Ninos* being topicalized. The same has been observed for scrambling in other languages as well; cf. Kidwai (2000) on Hindi, Şener (2010) on Turkish for the observation that scrambling has a robust IS effect: namely, when a constituent other than the direct object occupies the IPrP, that constituent is placed into the IPrP in order to be focused, while the displaced constituent is interpreted as a topic.⁴¹

- (113) A: *Nino-s* **vin** *xat'-av-s?*
 N.-DAT who draw-SF-PRS.3SG
 'Who is drawing Nino_i?'
 B: *Nino-s* **tavis-i** **deida** *xat'-av-s.*
 N.-DAT 3REFL.GEN.SG-NOM aunt.NOM draw-SF-PRS.3SG
 'HER_i AUNT is drawing Nino_i.'

To recap, the facts illustrated in (112) and (113) mean that A-scrambling of the intervening material may be involved in ensuring placement of the narrowly focused constituent in the IPrP. At the same time, there is also evidence that suggests that A-scrambling cannot be the only process that underlies displacement into the left periphery in Georgian, which comes from Condition C violations (or lack thereof – there is interspeaker variation with respect these constructions). To start with, Condition C effects are independently attested in Georgian, as shown in (114): placing a referential expression into the scope of a co-indexed personal pronoun leads to ungrammaticality.

- (114) *Is_{i/*k}* *Manana-s_k* *bavšv-s* *mdinare-ši* *ban-s.*
 3SG.NOM M.-GEN child-DAT river-in wash-PRS.3SG
 ('She_{i/*k} is washing Manana_k's child in the river.)

In turn, when it comes to the material displaced into the left periphery, speakers are not unanimous as to whether Condition C violations incur. This is shown in (115), which is derived from (114) by displacement of the object into the left periphery:

- (115) *Manana_k-s* *bavšv-s* *is_{i/%k}* *mdinare-ši* *ban-s.*
 M.-GEN child-DAT 3SG.NOM river-in wash-PRS.3SG
 'Manana_k's child, she_{i/%k} is washing in the river.'

³⁹ Note that in allowing for this binding scenario, nominals that contain the possessive anaphor *tavis-i* differ from those that contain the nominal anaphor *tavis-i tavi* '3SG.REFL' (lit: 'self's head'). For instance, *tavis-i tavi* '3SG.REFL', if contained in an indirect object, cannot be bound by a raised direct object; this contrasts with the behavior of *tavis-i* in (112), where a raised direct object can bind into a subject. See Amiridze (2006) and McGinnis (1999a; 1999b) for analyses of both types of anaphors in Georgian.

⁴⁰ McGinnis (1999a; 1999b) takes *Ninos* in the example (b) in (112) to land in the Spec, TP, as opposed to Spec, CP, likely also because she takes word order permutation to be scrambling without information-structural import.

⁴¹ Information-structural processes, such as topicalization, have also been shown to affect binding relations in other contexts. For instance, topical interpretation allows quantifiers to bind pronouns in their scope (following QR) (Zubizarreta 1998; Godjevac 2003):

- (i) A: *Who will accompany each/every boy on the first day of school?*
 B: *His_i mother will accompany each/every boy_i on the first day of school* (Zubizarreta 1998: 11)

In structural terms, the presence of the Condition C violation, which is found in some speakers, and the resulting impossibility of coreference, may be indicative of A-bar movement, since A-bar movement of an R-expression antecedent over a co-indexed pronoun is known to lead to Condition C violations (van Riemsdijk & Williams 1981; Fox & Nissenbaum 1999). On the other hand, lack of a Condition C violation, which is found in other speakers, suggests that the syntactic process that such displacement relies on, for them, is not A-bar movement. These facts, taken together, mean that displacement into the left periphery relies on A-scrambling in some structures, while in others, at least for some speakers, it results from A-bar movement.

Note that the diagnostics used in this Appendix concerned the structural properties of topicalized arguments. Adjunct constituents, when they receive a topical interpretation, typically provide temporal and locational details about the narrowly focused (Chafe 1976; cf. Asher, Prévot & Vieu 2007). Based on their adjunct nature, I take such adjunct topics to be base-generated in their positions, as is expected of scene-setting expressions (Benincà & Poletto 2004; Rizzi 2016).

2. Postverbal topics

The constituents that are found in the postverbal domain in wh-questions/utterances containing narrow foci can only be interpreted as familiarity topics (as opposed to contrastive topics). As for their structural properties, some of the tests for the moved vs. base-generated status of postverbal topics are not useable in Georgian, as was the case for left-peripheral topics. For instance, testing whether the postverbal constituent allows extraction (predicted to be the case if base-generated; if moved to/adjoined in the postverbal domain, the constituent would “freeze” and become an island; Ross 1974; Wexler & Culicover 1980) is impossible because Georgian does not allow sub-extraction (Fuchs 2016). Therefore, the main kind of reliable evidence comes from scope facts.

In contrast with their counterparts found in the left periphery, postverbal familiarity topics are preferably interpreted as having narrow scope with respect to constituents in the IPrP (as well as constituents in the left periphery). Specifically, the interpretation that (116) receives more easily is that there are particular students, less than five in number, that study Georgian twice a week (NUM > ADV), rather than a reading where, twice a week, less than five students come to study Georgian, and they are not the same students from week to week (??ADV > NUM).

- (116) A: *Kartul ena-s vin sc'avl-ob-s orjer k'vira-ši?*
 Georgian language-DAT who study-SF-PRS.3SG twice week-in
 ‘Who studies Georgian language twice a week?’
- B: *Kartul ena-s xut-ze nak'leb st'udent'-i sc'avl-ob-s*
 Georgian language-DAT five-on less student-NOM study-SF-PRS.3SG
orjer k'vira-ši.
 twice week-in
 ‘LESS THAN FIVE STUDENTS study Georgian language twice a week.’ (??ADV > NUM; NUM > ADV)

This suggests that the postverbal topic is found low in the structure; for present purposes, I am taking these right-peripheral topics to be low adjuncts on the right side of the clausal spine, as shown schematically in (117). Note that, in order to achieve a narrow scope reading with respect to the constituents further on the left, right-adjunction is necessary for most constituents; a notable exception to this generalization is postverbal direct objects – since they are found in their base position, with the VO order achieved via verb-raising, they may be found in situ when interpreted as postverbal topics.

- (117) [CP [AdvP *this year*] ... [VoiceP t_i [VP [VP [NP *two languages*] *studies*] [NP *each student*]_i]]]

The second argument for the right-adjunction of postverbal familiarity topics in Georgian is based on relative scope facts between two postverbal elements. The test used here goes back to Pesetsky (1989) and Johnson (1991) (and was later taken up by Cinque (1999)) but produces results opposite to those found in English. In English, Andrews (1983) and Pesetsky (1989) argue that the relative scope of postverbal adverbs in (118) is *intentionally* > *twice* > *on the door*, which provides evidence against right-adjunction/rightward movement of the adverbs, and instead signals that the verb has undergone leftward movement.⁴²

⁴² Though see Phillips (2003), Larson (2004) and Bobaljik (2016) on the evidence that, even in English, the relative scope of postverbal modifiers may be determined by focus structure as opposed to their surface constituency.

(118) *John knocked intentionally twice on the door.*

In Georgian, however, the corresponding context allows for both scope readings, regardless of the word order (119). This is expected if the verb does not raise from the VP in broad focus OV clauses, as was shown in Section 2, and the postverbal adverbs are adjoined on the right; the adjunct status also allows for the variable word order. The resulting interpretational differences, then, do not stem directly from syntax and may instead rely on other (contextual) factors.

- (119) a. *Guram-ma k'ar-ze da-a-k'ak'un-a mizanimartulad orjer.*
 G.-ERG door-on PRV-VER-knock-AOR.3SG intentionally twice
 'Guram knocked on the door intentionally twice.' (intentionally>twice, twice>intentionally)
- b. *Guram-ma k'ar-ze da-a-k'ak'un-a orjer mizanimartulad.*
 G.-ERG door-on PRV-VER-knock-AOR.3SG twice intentionally
 'Guram knocked on the door twice intentionally.' (intentionally>twice, twice>intentionally)

Based on this evidence, I conclude that postverbal familiarity topics in Georgian have (low) adjunct status. This is in line with other verb-final languages that allow background information to appear postverbally and use the adjunction mechanism to achieve that, such as Hindi (Srivastav 1991), German (Büring & Hartmann 1994), and Turkish (Butt & King 1996).

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