

On Extraction out of Inherently Case-Marked Elements^{*}

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1 Extraction out of Inherently Case-marked and Moved Elements

The goal of this paper is to provide an account of an ill-understood locality effect concerning inherent case, namely, the fact that extraction out of inherently Case-marked elements is disallowed, as shown by (1).¹

- (1) ?*Kojeg doktora_i si prijetio [prijatelju t_i]?
which doctor_{GEN} are threatened friend_{DAT}
'Which doctor did you threaten a friend of?' (Serbo-Croatian)

It will be shown that inherently Case-marked elements exhibit the same kind of locality with respect to extraction as moved elements, which will be shown to have important consequences for inherent Case-licensing.

Many have argued that extraction out of moved elements is banned. Bošković (in press) shows that this ban can be deduced in a way that allows such extraction in one well-defined context, where such extraction is indeed allowed. As noted above, inherently Case-marked elements are islands—they disallow extraction. Importantly, we will see that the context that exceptionally allows extraction out of moved elements also exceptionally allows extraction out of inherently Case-marked elements. Inherently Case-marked elements thus show the same kind of locality as

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¹ The effect was noted in Starke (2001), though only for one context (see section 3).

moved elements. Based on that, it will be argued that the islandhood of inherently Case-marked elements should be unified with the islandhood of moved elements, which in turn indicates that inherently Case-marked elements undergo movement, the main conclusion of this paper. The reason for this movement will also be discussed.

I will start the discussion with the ban on movement out of moved elements, returning to inherently Case-marked elements in section 3.

2 On the Ban on Movement out of Moved Elements

Many authors have argued that movement out of moved elements is disallowed (see Wexler and Culicover 1980, Diesing 1992, Takahashi 1994, Müller 1998, Stepanov 2001, Boeckx 2008, among many others).

(2) Movement is not possible out of moved elements.

The Subject Condition, which bans extraction out of subjects in SpecTP, illustrates (2). Under the VP Internal Subject Hypothesis, subjects move to SpecTP. Extraction out of a subject in SpecTP, as in (3), then involves extraction out of a moved element, i.e. it is an instance of (2).

(3) ?*I wonder [_{CP} who_i [_{DP} friends of t_i]_j [_{VP} t_j hired Mary]]

That subject movement is indeed the culprit here is confirmed by the fact that extraction is possible from subjects that remain in SpecvP (see for example Takahashi 1994, Stepanov 2001), as illustrated by Spanish (4), taken from Gallego and Uriagereka (2007).

(4) ¿De qué equipo_i dices que han bailado_j [_{VP}[dos participantes t_i] t_j]
of what team say_{2SG} that have_{3PL}danced two participants
‘Which team do you say that two members of have danced?’

(5) cf. ?*¿De qué equipo_i dices que [_{DP} dos participantes t_i]_j han bailado t_j

Extraction out of moved object is also disallowed. Thus, Lasnik (2001) argues that the object in pseudogapping undergoes object shift, which is followed by VP ellipsis. Crucially, extraction from such objects is degraded, as in (6). Particle constructions where the object precedes the particle also involve object shift (see Lasnik 2001, Johnson 1991). Again,

extraction out of such objects is degraded, as in (7).

- (6) ?*Who will Bill select a painting of, and who_j will Susan [a
 photograph of t_j]_i [_{vP} select t_i]
(7) ?*Who_j did you call [friends of t_j]_i up t_i?

Torrego (1998) argues *a*-marked objects in Spanish undergo movement. Importantly, they disallow extraction (see also Diesing 1992 and Müller 1998 on movement out of scrambled/shifted objects in German).

- (8) ?*[De quién]_j has visitado [_{DP} a muchos amigos t_j]_i [_{VP} ... t_i]
 of whom have_{2SG} visited a many friends
 ‘Who have you visited many friends of?’ (Gallego & Uriagereka 2007)

(2) also holds for A’-moved (9) and rightward-moved (10) elements.²

- (9) a. ?*Whose books_i do you think that [reviews of t_i]_j he never reads t_j
 b. *Was_i denkst du [_{CP} [_{vP} t_i gelesen]_j hat_k [_{IP} keiner t_k t_j]]?
 what think you read has no one
 ‘What do you think no one read?’ (Corver in press)
(10) ?*What_i did you see t_j yesterday [a movie about t_j]_i?

P-stranding is also not possible with PPs that undergo movement.

- (11) *Which table_i did you think that [on t_i]_j John put the book t_j?

There is thus a great deal of evidence for (2).³ Bošković (in press) shows that (2) follows from independently made assumptions regarding phases

²(9b) involves movement from a vP that is remnant-fronted to SpecCP (with *hat* moving to C). Torrego (1985) claimed that Spanish allows extraction from SpecCP based on examples like (i). However, Gallego (2007) shows that such cases involve a prothetic object, where the extracted element is the object of the higher verb (see (ii)). When this possibility is blocked by reconstruction, as in (iii), the example becomes unacceptable.

(i) Este es la autor del que no sabemos qué libros leer
 this is the author by whom not (we) know whatbooks read
(ii) Este es la autor [del que]_i no sabemos t_i [_{CP} [qué libros]_j leer t_j]
(iii) *[_{CP} [De qué hijo suyo]_i C sabes [_{CP} [qué novelas t_i] C ha leído todo padre]_j]]?
 of what son his know_{2SG} what novels have_{3SG} read every father
 ‘Which son of his do you know which novels by has every father read?’

and labeling. The former concerns Chomsky's (2000, 2001) criteria for differentiating phases and non-phases, namely (12) (see Chomsky 2000, 2001, Rackowski and Richards 2005, Matushansky 2005, Harwood 2013, Legate 2014, Bošković 2015a, among others).

(12) Only phases can undergo movement.

Bošković (in press) shows (2) follows from (12) and Chomsky's (2013) labeling theory, which allows unlabeled objects during the derivation but not in final representations. In Chomsky (2013), when a head and a phrase merge the head projects, providing the label for the resulting object. When two phrases merge there are two ways to label, through prominent feature sharing or traces, traces being ignored for labeling. (13) illustrates the former with the merger of *which book* and wh-C (actually CP at the relevant derivational point). Both the wh-phrase and the CP have the Q-feature—what is projected (i.e. determines the label of the resulting object through prominent feature-sharing) is the Q-feature.⁴

(13) I wonder [_{CP} which book_i [_{C'} C [John bought t_i]]]

Consider now (14), with the relevant derivational point in (15).

(14) What_i do you think [_{CP} t'_i [_{C'} that [John bought t_i]]]

(15) v [_{VP} think [_? what [_{CP} that [John bought t_i]]]

Chomsky assumes successive cyclic movement does not involve feature sharing, following Bošković (1997, 2002, 2007). As there is no feature sharing between *that* and the wh-phrase passing through its edge, labeling via feature sharing is not an option here. The embedded clause then cannot be labeled after *what* moves to its edge. When *v* is inserted (15), *what* moves away. The element merged with the *that*-CP being a trace, it is ignored for labeling, hence ? is labeled as CP after *what* moves away. Only at this point is the embedded clause in (14) labeled.

³There have been claims that (2) does not hold, for relevant discussion see Bošković (in press) and footnotes 2 and 5 here. Note, however, that under Bošković's (in press) account of (2), movement is actually not always disallowed out of moved elements, as discussed below.

⁴I will continue using CP and SpecCP for such cases for ease of exposition.

This is the general treatment of successive cyclic movement in the labeling framework. With this in mind, consider (16). (16a) involves movement of YP from moved XP. Before the movements, we have (16b).

- (16) a. $YP_i [XP \dots t_i \dots]_j \dots t_j$
 b. $[XP \dots YP \dots]$

Since only phases can move, for XP to move it must be a phase. Given the PIC, which requires movement out of a phase to proceed via its edge, YP must move to the edge of XP before moving out of XP. Furthermore, movement of YP to the edge of XP must precede the movement of XP, given the cycle. As discussed above, the merger of YP and XP yields an unlabeled object. Now, for Chomsky, phases are CPs, vPs, and DPs (see Bošković 2013a, 2014 on APs and PPs). However, the result of the merger of YP and XP is none of these; the object formed by this merger does not have a label at all, hence it is not a phase (in other words, phases require label-determination, hence unlabeled objects cannot be phases).

For illustration, consider the Subject Condition case in (17). Subjects being phases, *who* must move to the edge of the subject. Given the cycle, this must happen before the subject moves out of vP. Merger of *who* and the subject DP yields an unlabeled object, which, not having a label, is not a phase. The object marked with ? in (17b) then cannot move.⁵

- (17) a. *I wonder who_i [$friends\ of\ t_i$] left
 b. $[_{TP}\ T[_{vP}[? \mathit{who}\ [_{DP}\ subject]]]]$

Note the account still allows remnant movement, where YP moves from XP before XP moves. Consider vP fronting. The result of the merger of the subject and vP in (18) cannot be labeled (see Chomsky 2013), as in (19a). *She* moves to SpecTP; its trace being ignored for labeling, the relevant element is labeled as vP (19b). Since vP is a phase it can move.

- (18) $[_{vP}\ t_i\ kiss\ Mary]_j\ [_{TP}\ she_i\ did\ t_j]$
 (19) a. $[? \mathit{she}\ [_{vP}\ kiss\ Mary]]$

⁵Under Saito's (2016) analysis of labeling in Japanese, this account predicts scrambling from scrambled elements in Japanese to be possible, which it is (see Bošković in press; see also that work for other derivations of (17), which are not discussed here).

b. [_{TP} she_i [_{VP} t_i kiss Mary]]

The above account provides a new perspective on (2), where the problem with movement of YP out of moved XP does not arise when YP moves out of XP; it arises already with movement of XP. XP itself cannot move here, hence any later movement out of XP is trivially blocked. It is then not the case that movement of XP freezes its internal structure; rather, movement of YP to the edge of XP prevents movement of XP.

All the cases from section 2 involve successive-cyclic movement via the XP edge. Since by the very nature of successive-cyclic movement the phrase undergoing it cannot stay in an intermediate Spec for independent reasons, all the cases involve movement from a moved element, which led to the ‘illusion’ that this later movement caused their unacceptability.

When YP undergoes successive-cyclic movement via the edge of XP, labeling of the YP-XP merger is not possible due to the lack of feature sharing; YP must move to enable labeling. This would not be the case if YP is base-generated at the edge of XP, undergoing feature sharing: while with successive-cyclic movement (the non-feature sharing case), labeling must be delayed (it is not possible until one element moves), with feature-sharing merger, labeling is possible at the creation of the relevant structure. We then predict that (2) should not hold when the phrase that undergoes extraction from a moved element is base-generated at its edge and can otherwise stay there, an indication that it undergoes feature-sharing with the element that it merges with. Movement out of a moved element should then be allowed—no labeling problem would arise since all labeling would take place before the relevant movements.⁶

Bošković (in press) gives a number of cases that show that movement from a moved element is indeed allowed in this configuration. One such case involves Serbo-Croatian (SC) possessors, which Bošković (2013a) argues are base-generated at the phasal edge. One argument for

⁶Bošković (in press) assumes that labeling can take place as soon as it is possible (see Bošković 2015a, Rizzi 2016, Saito 2016, Shlonsky 2014), which means that under feature-sharing, labeling can occur before any movement of the elements that undergo feature-sharing. Notice that Chomsky (2013) assumes that labeling takes place at the phasal level, for the whole phase. Nothing changes regarding the prediction from the text under this approach: a label for the result of a merger of a base-generated edge of phase XP that undergoes feature sharing is determined at the phasal level of XP, hence before movement of XP.

this is given in Despić (2011, 2013), based on the binding violations in (20c-d), which indicate that the possessor c-commands out of its Traditional NP (TNP).⁷ It must then be located at its edge, which means that it is located at the phasal edge given that the highest phrase in the extended domain of N is a phase, as argued in Bošković (2013a, 2014).

- (20) a. His_i latest movie really disappointed Kusturica_i.
 b. Kusturica_i's latest movie really disappointed him_i.
 c.*[_{NP} Kusturicin_i [_{NP} najnoviji film]] ga_i je zaista razočarao.
 Kusturica's latest movie him is really disappointed
 'Kusturica's latest movie really disappointed him.'
 d.*[_{NP} Njegovi_i [_{NP} najnoviji film]] je zaista razočarao Kusturicu_i.
 his latest movie is really disappointed Kusturica

SC possessors undergo agreement in phi-features and case (i.e. they undergo feature-sharing). They can also move. Crucially, they can move out of moved elements. In (21a), the possessor is extracted out of a fronted object, and in (21b) out of a moved passive subject. In (21c), the adverb indicates subject movement to SpecIP before poss-extraction.

- (21) a. Jovanovu_i je on [_{NP} t_i sliku]_j vidio t_j
 John's_{ACC} is he picture_{ACC} seen
 'He saw John's picture.'
 b. Jovanova_i je [_{NP} t_i slika]_j ukradena t_j
 John's_{NOM} is picture_{NOM} stolen
 'John's picture was stolen.'
 c. Jovanov_i je [_{NP} t_i prijatelj] vjerovatno otpustio Mariju.
 John's_{NOM} is friend_{NOM} probably fired Maria_{ACC}
 'John's friend probably fired Maria.'

(21) shows that (2) does not hold for elements that are base-generated at the edge of the relevant phrase. Consider the derivation of (21a): Poss is generated at the TNP-edge. It undergoes feature-sharing, hence the TNP

⁷The term TNP is used neutrally, for whatever the category of the relevant element is (which is not crucial here). Bošković (2013a, 2014) and Despić (2011, 2013) actually argue that the SC possessor is TNP-adjoined, under the standard assumption that XP adjoined to YP c-commands everything that YP does. (They also argue that the DP layer is missing in SC, a language without articles.)

is labeled (22a). The TNP is a phase (Bošković 2013a, 2014), hence it can move (22b). After the object moves, the possessor is extracted (22c).

- (22) a. vidio [_{NP} Jovanovu sliku]
 seen John's_{ACC} picture_{ACC}
 b. [_{NP} Jovanovu sliku]_j vidio t_j
 c. Jovanovu_i je [_{NP} t_i sliku]_j vidio t_j

(21a) shows that extraction out of moved elements is possible exactly where it is predicted to be possible under Bošković's (in press) account of (2).

The account of (21) extends to (23a-b), which also involve movement of a base-generated edge of XP after XP moves (see Bošković in press).

- (23) a. Skup_i su oni [t_i automobil]_j kupili t_j.
 expensive are they car bought
 'They bought an expensive car.'
 b. ?Izuzetno_i su [t_i skup]_j kupili [t_j automobil].
 extremely are expensive bought car
 'They bought an extremely expensive car.'

Further, observing that there is crosslinguistic variation with respect to extraction of adjuncts out of TNPs, Bošković (2013a) argues that in languages where adjuncts can extract out of TNPs, like SC, such adjuncts are base-generated adjoined to the TNP. As expected then, they can also extract from moved TNPs. (This case was not noted in Bošković in press.)

- (24) O kojoj zemlji_i je on [knjigu t_i]_j kupio t_j?
 about which country is he bought book

Another case concerns German PPs and *r*-pronouns. They exceptionally precede adpositions (25a), which are otherwise always prepositional.

- (25) a. davon/*von da b. von dem Mann/*dem Mann von
 it.of of the man
 (26) Er hat davon_i noch nicht [das Vorwort t_i]_j gelesen.
 he has it-of yet not the foreword read

Davon is standardly analyzed as involving movement of *da* to SpecPP (or a higher position in the P's extended projection; I will use the former for ease of exposition). Note that the DP P order is restricted to the small group of *r*-pronouns and about 20 prepositions, indicating that agreement/feature-sharing is involved here (only elements that undergo it occur in this configuration), which makes labeling possible. That *da* must move to SpecPP (25a) and stays in SpecPP (26) shows that movement of *da* to SpecPP does not occur for reasons of successive-cyclicity.

Da can also strand the P (27). It is also possible to first move the PP and then move *da*, as in (28). (*[das Vorwort t_j]* undergoes remnant movement.) Dutch (29), which does not involve remnant movement, illustrates the same point (*waar* is an *r*-pronoun, which must precede the P within the PP).

- (27) Er hat da_i noch nicht [das Vorwort [t_i von t_i]] gelesen.
 he has it yet not the foreword of read
- (28) Er hat da_i [das Vorwort t_j]_k noch nicht [t_i von t_i]_j t_k gelesen.
 he has it the foreword yet not of read
 (den Besten and Webelhuth 1990)
- (29) Waar_i had jij dan [t_i mee t_i]_j gedacht [dat je de vis t_j zou
 where had you then with thought that you the fish would
 moeten snijden]
 must cut
 'What did you think you should cut the fish with?' (Barbiers 2002)

The account of (21) extends to (28)-(29), which involve movement to a feature-sharing position: *da/waar* move to SpecPP, the PP then moves, and *da/waar* move out of the PP. Since *da/waar* undergo feature-sharing needed for labeling in SpecPP, no labeling problem arises here.⁸

⁸A referee notes example (i), which is somewhat degraded but not fully unacceptable. *Naše porodice* is focalized here; it is then possible that (i) involves focus movement to a TNP-internal FocP (which freezes *naše porodice* in this position, preventing its further movement due to the criterial freezing effect), with *naše porodice* undergoing feature-sharing within FocP, making labeling, and movement, possible here.

(i) (?.)Naše porodice sliku sam okačio na zid.
 our family picture am hanged on wall
 'I hanged the picture of our family on the wall.'

All this indicates that nothing is in principle wrong with movement out of moved elements: what is wrong in the cases used to motivate (2) is that the element that is later moved out of cannot move itself. A phase with a feature-sharing edge can move, but a phase with a non-feature sharing edge (as is the case with successive cyclic movement) cannot. (2) is then misguided. The right generalization is (30), which is a theorem.⁹

(30) Phases that host successive-cyclic movement cannot move.

Given the above background, I return to inherently Case-marked NPs.

3 Islandhood of Inherently Case-Marked NPs

Starke (2001:39) observes with respect to extraction of adnominal complements in Czech that extraction from inherently Case-marked TNPs is worse than extraction from structurally Case-marked ones. The point is illustrated in (31) with respect to SC. While extraction of genitive complements of nouns is in general somewhat degraded in SC, (31a), which involves extraction out of a dative object, is clearly worse than (31b), which involves extraction out of an accusative object.^{10,11}

⁹(30) can be restated as (i), or as (ii) within the labeling framework (for relevant discussion, see Bošković in press).

(i) Phases with non-agreeing Specifiers cannot undergo movement.

(ii) Unlabeled elements cannot undergo movement.

¹⁰The contrast is also found with the extraction of inherently Case-marked nominal complements; it is even clearer in this case since their extraction is better than extraction of genitive nominal complements (see Bošković 2013a; I discuss the former in work in preparation, focusing on inherently Case-marked complements of verbs here).

(i)a. ?*Kakvim štrajkom_i se hvalio [prijetnjama t_i]?

what-kind-of strike_{INSTR} self boast threats_{INST}
‘What kind of a strike did he boast with threats of?’

b. Kakvim štrajkom_i si podržavao [prijetnje t_i]?

what-kind-of strike_{INSTR} are supported threats_{ACC}
‘What kind of a strike did you support threats of?’

¹¹Starke notes the effect in question is found in Czech and Slovak, as well as German and Greek. Spanish may exhibit the same behavior, the relevant case involving extraction out of dative *a*-objects (8). The discussion below can apply to this case too; it can in fact provide motivation for Torrego’s (1998) movement of *a*-marked DPs.

The islandhood of nominal complements of ergative verbs, noted in Bošković (2015a) and illustrated by (i), may also be relevant here.

(i) ?*Who_i did John’s embarrassment escape [friends of t_i]? (Bošković 2015a)

- (31) a. ?*Kojeg doktora_i si prijetio [prijatelju t_i]?
 which doctor_{GEN} are threatened friend_{DAT}
 ‘Which doctor did you threaten a friend of?’
 b. (?*)Kojeg doktora_i si vidio [prijatelja t_i]?
 which doctor_{GEN} are seen friend_{ACC}
 ‘Which doctor did you see a friend of?’

This indicates that inherently Case-marked TNPs are islands. Bošković (2015b) suggests to capture the islandhood of inherently Case-marked TNPs by treating them as adjuncts: they then involve extraction from an adjunct. However, if inherently Case-marked TNPs were adjuncts we would expect extraction of such TNPs from islands to yield ECP-strength violations. This is not borne out. Thus, (34) patterns with (33) rather than (32), involving extraction of a nominal adjunct, regarding the strength of the violation, which argues against the adjunct analysis (all the examples are acceptable without extraction, e.g. *Pitaš se kad je trčao šumom*).

- (32) * Šumom_i se pitaš [kad je trčao t_i].
 forest_{INSTR} refl wonder when is run
 ‘You wonder when he ran through a/the forest.’
 (33) ?? Šumu_i se pitaš [kad je posjekao t_i].
 forest_{ACC}refl wonder when is cut-down
 ‘You wonder when he cut down a/the forest.’
 (34) ?? Fabrikom_i se pitaš [kad je rukovodio t_i].
 factory_{INSTR} refl wonder when is managed
 ‘You wonder when he managed a/the factory.’

Importantly, movement out of inherently Case-marked TNPs is not always blocked. In particular, elements base-generated at their edge can

Under Burzio’s generalization, ergative verbs should not be able to license structural accusative. The object in (i) should then bear inherent Case. (i) could then be taken as another illustration of the islandhood of inherently Case-marked NPs. However, as noted in Bošković (2015a), even clausal complements of ergative verbs generally display islandhood. If the general locality effect found with ergative verbs and discussed in Bošković (2015a) is to be attributed to the islandhood of inherent case we would need to assume that even the CP in (ii) bears inherent case; see, however, Bošković (2015a) for an alternative, unified account of (i-ii) which is independent of Case considerations).

(ii) ?*What_i did it appeal to Mary/depress Mary [that John fixed t_i]?

move. Thus, extraction of possessors of inherently Case-marked TNPs is possible (35). The same holds for extraction of adjectives (36).

- (35) Čijem_i si prijeto [t_i prijatelju]?
 whose_{DAT} are threatened friend_{DAT}
 ‘Whose friend did you threaten?’
- (36) Lojalnom_i si prijeto [t_i prijatelju]?
 loyal_{DAT} are threatened friend_{DAT}
 ‘You threatened a loyal friend.’

Inherently Case-marked TNPs then show the same kind of islandhood as moved elements: they allow extraction for elements base-generated at their edge. The parallelism can be captured if inherently Case-marked TNPs must undergo movement.¹² Extraction from inherently Case-marked TNPs can then be treated in the same way as extraction from moved elements: the above account of extraction out of moved elements in fact then extends to extraction out of inherently Case-marked elements.

The account can also be extended to the following contrast involving subextraction from APs. Given that inherently Case-marked elements must undergo movement, extraction of the adjectival complement in (38) involves extraction out of a moved element (i.e. the object TNP).

- (37) ?Generalu_i sam vidio [[_{AP} lojalnog t_i] vojnika]
 general_{DAT} am seen loyal_{ACC} soldier_{ACC}
 ‘I saw a soldier loyal to the general.’
- (38) *Generalu_i sam komandovao [[_{AP} lojalnim t_i] vojnikom]
 general_{DAT} am commanded loyal_{INST} soldier_{INST}
 ‘I commanded a soldier loyal to the general’

Interestingly, subextraction from APs modifying inherently Case-marked Ns is possible for elements base-generated at the edge of the adjective.

- (39) ?Izuzetno_i sam komandovao [[_{AP} t_i [_{AP} lojalnim] vojnikom]]
 extremely am commanded loyal_{INST} soldier_{INST}
 ‘I commanded an extremely loyal soldier.’

¹² Notice that SC participles undergo movement (see Bošković 2001, Stjepanović 1998), hence a TNP that follows it may still undergo movement.

From the current perspective, these data indicate that while the intensifier in (39) counts as being located at the edge of the object TNP, hence need not move to its edge when undergoing successive-cyclic movement, the adjectival complement in (38) is not located at the edge of the object in its base position, hence must undergo successive-cyclic movement via its edge. Only (38) then involves successive-cyclic movement via the object TNP edge. Since being inherently Case-marked, this TNP also undergoes movement, only (38) is then ruled out under the current approach to (2).

This can also help us sharpen the notion of the edge of a phase. Talić (2015a) argues that the intensifier in (39) is AP-adjoined in its base position. Given that AP itself is located at the edge of the TNP phase in SC (see Bošković 2013a), *izuzetno* is then located at the edge of the edge of the TNP phase. There are conflicting positions on whether the edge of the edge of phase XP counts as the edge of XP. Though the issue is not explicitly discussed there, under Chomsky's (2000) approach to the PIC this is the case. On the other hand, Hiraiwa (2005) argues that the edge of the edge of phase XP should not count as the edge of XP. The above data show that both positions are sort of right and wrong (i.e. neither is fully right or wrong); these data show that what is dominated by the edge of phase XP¹³ is not at the edge of XP. Since *extremely* is not dominated by the edge of the TNP phase in its base position, it counts as being at the edge of the TNP phase, which is not the case with *generalu* in (38). Under this approach to the edge-of-the-edge issue, the intensifier in (39), but not the adjectival complement in (38), is accessible to operations outside of the object TNP, hence it need not move via its edge.¹⁴

¹³Or what is immediately dominated by another phase, see footnote 14 on AP phasehood.

¹⁴Bošković (2013a, 2014) argues that the highest projection in the extended domain of A (which I will refer to as traditional AP (TAP)) is also a phase. An issue then also arises regarding movement from this phasal domain for both (37) and (38). There are several options here, teasing apart of which is interesting in itself but does not affect the above discussion. The issue is whether the adjectival complement will need to pass through the Spec of the TAP phase. If the TAP is a bare AP, as Talić (2015a) argues, and given Bošković's (2015a) approach to the PIC, where (contra Chomsky 2000, 2001) not just the Spec but also the complement of a phase is accessible outside of the phase, 'general' will not need to move to the Spec of the TAP phase on its way out of the TAP, otherwise, such movement will be necessary. What further complicates the situation here is that the complement of an attributive adjective must precede the adjective in SC (see (i)), which could be interpreted as indicating obligatory feature-checking movement to the TAP Spec (a position that is still dominated by the TAP phase), along the lines of German *r*-pronouns (but see Bošković 2013b for a very different perspective on this issue).

4 Why do Inherently Case-Marked NPs Move?

In this section I will briefly address the reason why inherently Case-marked elements undergo movement.

Inherent case is often associated with prepositionhood. Suppose that this is indeed the case, which means that there is a null inherently Case-marking (ICM) preposition in (1). Kayne (2000, 2005) suggests that prepositions may be generated separately from what is traditionally considered to be their complement, which then induces movement of the latter.¹⁵ I suggest that this is what happens with null ICM Ps of the kind discussed here (note that there is no θ -relation between this P and the relevant NP, as in Kayne's cases). In particular, the verb takes NP as its object, the null ICM P is generated outside of the VP (the exact position is not important), with the NP undergoing movement to the Spec of the P, as in (40). (It is possible that the P then adjoins to the element in SpecPP, as discussed in Bošković 2005, 2013c and Talić 2013 for a number of cases in Slavic; in fact, this could be the right implementation of Kayne's P-movement from footnote 15).¹⁶

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- (i) a. generalu lojalnog vojnika b. *lojalnog generalu vojnika
 general_{DAT} loyal_{ACC} soldier_{ACC}

¹⁵Thus, Kayne suggests the derivation in (ii) for French (i) (the subject and the auxiliary are ignored in (ii)), where \hat{a} is generated outside of VP, with *Paul* moving to its Spec (Kayne assumes that the subsequent movement of \hat{a} takes place because \hat{a} is a preposition, not a postposition).

- (i) Jean a donné un livre à Paul

Jean has given a book to Paul

- (ii) \hat{a} [_{VP} donné Paul un livre] → Paul_i \hat{a} [_{VP} donné t_i un livre] →

\hat{a} _j +W Paul_i t_j [_{VP} donné t_i un livre] → [_{VP} donné t_i un livre] t_k \hat{a} _j +W Paul_i t_j t_k

¹⁶The evidence for the possibility of such movement comes from the fact that the element in SpecPP carries the preposition with it when it undergoes further movement (one such case is (i)), and from certain accent shifts that correlate with syntactic mobility (see Talić 2015b for a prosodic argument along these lines that (i) is derived as follows: *veliku* moves to SpecPP, *u* left-adjoins to it, the *u veliku* complex then moves out of the PP).

- (i) U veliku je ušao kuću.

in big is entered room

'He entered a big room.'

It is possible that this derivation of (i) is what happens with inherent Case more generally; i.e. that the inherent Case movement discussed in the text is in fact the same as the one depicted above for (i). Under this analysis, verbs taking inherently Case-marked complements would actually take a PP complement headed by a null P (note here that Bošković 2013a argues that there is a P-like projection above inherently Case-marked

(40) [_{PP} NP_i \emptyset_P ... [_{VP} V t_i]]

Inherently Case-marked NPs then always undergo movement, hence only elements base-generated at their edge can move out of them. Further research is of course needed to determine whether the analysis outlined here can be maintained as the general approach to inherent Case-marking. At any rate, the pattern of extraction from inherently Case-marked NPs is at least suggestive of a unification with the ban on movement out of moved elements, given that inherently Case-marked NPs and moved elements exhibit the same kind of (in)sensitivity to extraction.

5 Conclusion

Addressing the puzzle of islandhood of inherently Case-marked elements, I have observed that they are not always islands. In particular, they show the same behavior regarding islandhood as moved elements. Moved elements generally disallow extraction. However, they do allow it in one context, namely for elements base-generated (i.e. undergoing feature-sharing) at their edge, which is captured by Bošković's (in press) account of the ban on movement out of moved elements. Importantly, inherently Case-marked elements exceptionally allow extraction in the same context

NPs, which Talić 2013 argues is in fact a PP), with the complement of this null P moving to SpecPP (or a higher functional projection within the traditional PP, if there are such projections), and the P possibly adjoining to the element in SpecPP (which is not shown in (ii)).

(ii) a. [_{VP} V [_{PP} \emptyset_P NP]]

b. [_{VP} V [_{PP} NP_i \emptyset_P t_i]]

Inherently Case-marked NPs would then be PPs exhibiting the special behavior of the kind discussed above, with independent evidence that such special behavior is indeed attested coming from (i). Under both the analysis outlined here and the one from the text inherently Case-marked NPs move, which suffices to account for the locality effect with extraction out of them. The two analyses, however, differ in the height of this movement: under the analysis from the text inherently Case-marked NPs undergo movement above the base object position, while under the analysis outlined here their movement is object internal. As a result, at least height-wise, the analysis from this footnote does not differ from the standard treatment of inherently Case-marked elements, where they need not undergo movement. Determining the height of inherently Case-marked elements is beyond the limits of this paper, whose goal is merely to provide arguments that there is such movement, hence I leave teasing apart the two options noted here for another occasion (but see section 5 for some relevant discussion).

as moved elements. Based on this, I have extended Bošković's (in press) account of the ban on movement out of moved elements, which allows such extraction in the exceptional context in question, to extraction out of inherently Case-marked elements, unifying islandhood of moved and inherently Case-marked elements. This has led to the conclusion that inherently Case-marked elements always undergo movement. I have also suggested an account of this state of affairs that appeals to the traditional intuition that inherent Case-licensing involves prepositionhood.

The suggestion that inherently Case-marked elements must undergo movement has broad consequences that cannot be explored within the confines of this paper. The suggestion, however, has the potential to provide a new perspective on a number of issues.

Consider for example the scope of Japanese *dake* 'only'. The accusative object in (41) must scope under the potential affix.

- (41) Taro-ga migime-dake-o tumur-e-ru.
Taro-Nom right.eye-only-Acc close-can-Pres
'Taro can close only his right eye.' (*only > can, can > only)

Like SC, Japanese has verbs that do not assign accusative to their complement NP. Significantly, in (42), where the verb assigns inherent dative case to its complement, the object can take wide scope.

- (42) Taroo-wa Daitooryoo-dake-ni a-e-ru.
Taro-Top president-only-Dat meet-can-pres
'Taro can meet only with the president.' (only > can, can > only)

Assuming that scope reflects structural height, the contrast in (41)-(42) can be taken to indicate that the inherently Case-marked object in (42) is higher in the structure than the structurally Case-marked object in (41), with the current suggestion that inherently Case-marked elements must undergo movement providing justification for the height difference (for similar scope data regarding *a*-marked objects in Spanish, see Torrego 1998). In other words, the scope contrast in (41)-(42) can be taken to provide independent evidence that inherently Case-marked objects are

higher structurally than structurally Case-marked objects (note that the extraction test cannot be done here for independent reasons, see fn 5).¹⁷

An interfering factor should, however, be noted here. The current suggestion regarding inherent Case-marking can be for obvious reasons most productively explored in case-rich languages. However, such languages also tend to have a great deal of freedom of word order. This makes exploring structural relations in such languages a difficult endeavor. Furthermore, whatever operations are responsible for the freedom of word order can make the movement operation that inherently Case-marked elements undergo difficult to detect; in other words, teasing apart the (movement) operations that are responsible for the general freedom of word order and the movement that inherently Case-marked elements need to undergo is far from trivial.¹⁸

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¹⁷Nominative *dake* objects can take scope over ‘can’, which has been taken to indicate that nominative objects are higher than accusative objects (e.g. Koizumi 1995, Ura 1996, Nomura 2005, but see also Bošković 2012 (the source of (41)-(42)) and Takahashi 2011).

¹⁸For another complication, see Stjepanović (1997), who argues that one movement operation that has often been assumed to be confined to structurally Case-marked objects, i.e. object shift, is also available to inherently Case-marked objects (though it is not out of question that the more or less standard assumption that object shift is confined to structurally Case-marked elements is correct, with Stjepanović’s 1997 tests detecting the effects of the movement of inherently Case-marked elements argued for here).

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