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Sluicing in Basque: a move-and-delete analysis

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Sluicing in Basque: a move-and-delete analysis

Sluicinga euskaraz: mugimenduaren eta ezabaketaren analisia

Truncamiento en euskera: un análisis de movimiento y borrado

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ABSTRACT

In this paper I explore sluicing in Basque, the elliptical phenomenon whereby the interrogative clause is elided, but the *wh*-remnant is pronounced. Specifically, I address the long-debated question of whether sluicing involves a full-fledged syntactic structure or not. By employing diverse cross-linguistic tests (case matching, binding, and adposition (non-)stranding), I show that there is structure therein. In short, I entertain the hypothesis that this phenomenon involves independently available *wh*-movement and subsequent deletion of the ellipsis site, which consists of silent structure; namely, I propose a move-and-delete account for sluicing in Basque.

Keywords: sluicing; Basque; syntactic structure; move-and-delete.

LABURPENA

Lan honetan, *sluicing* deritzon elipsi-mota aztertu dut, euskaratik abiaturik. Egitura horretan itxuraz galde-perpau baten aurrean gaude, baina *nz*-sintagma da ahoskatzen den arrasto bakarra. Hain zuzen ere, *sluicing*aren atzean egitura sintaktiko oso bat ezkututzen den ala ez zehaztea dut helburu. Beste hizkuntza batzuetarako proposatu diren testak erabiliz (kasu-markaketa, uztardura, eta adposizioen banaketa), frogatuko dut elementu batzuen presentzia beharrezkoa dela. Emaitzei erreparatuz, esan dezakegu euskal *sluicing*ean egitura sintaktiko isila dagoela; eta beraz, proposatzen dut *nz*-sintagmaren mugimenduaren eta gainerako egituraren ezabaketaren bitartez gertatzen dela fenomeno hau.

Gako hitzak: *sluicinga*; euskara; egitura sintaktikoa; mugimendua eta ezabaketa.

RESUMEN

En este artículo analizo el fenómeno elíptico del truncamiento en euskera, que se basa en la supresión de la proyección oracional de una oración interrogativa, con excepción del sintagma-*qu*. Concretamente, trato de responder a la pregunta de si subyace una estructura sintáctica en el truncamiento. A través de varios test que se han propuesto para otras lenguas (marcación de caso, ligamiento, y distribución de adposiciones), demostraré que sí existe dicha representación sintáctica. Defiendo que el truncamiento en euskera se explica mediante el movimiento del sintagma-*qu* y la eliminación del resto de la estructura sintáctica; un análisis de movimiento y borrado frente a uno no-estructuralista.

Palabras clave: truncamiento; euskera; estructura sintáctica; movimiento y borrado.

1. INTRODUCTION. 2. PHENOMENON UNDER DISCUSSION. 2.1. Sluicing in Basque. 2.2. Some background on Basque syntax. 3. SLUICING IN BASQUE. 3.1. Case matching. 3.2. Binding. 3.3. Adposition (non-)stranding. 3.4. Sprouting. 3.5. Locality. 4. CONCLUSIONS. 5. REFERENCES.

1. INTRODUCTION

This paper surveys *sluicing* in Basque, the elliptical phenomenon in which the *wh*-phrase is understood as a complete interrogative clause:

- (1) *Ascenek norbait maite du, baina ez dakit nor*¹.
 Ascen.ERG someone.ABS love AUX but not I.know who.ABS
 'Ascen loves someone, but I don't know who.'

A classic example of sluicing from Ross (1969), the first author who formally described this construction, is illustrated in (2):

- (2) a. Somebody just left — guess who just left.
 b. Somebody just left — guess who.

(Ross, 1969, p. 252, ex. (1a) and (2a))

Based on the assumption that the ellipse comprises full syntactic structure, I refer to the clause that precedes the interrogative clause as the antecedent, which contains the

1 These are the abbreviations employed in the paper: 1 = first person, 2 = second person, 3 = third person, ABS = absolutive, ACC = accusative, AUX = auxiliary, C = complementiser, DAT = dative, ERG = ergative, F = focus, GEN = genitive, *Int.* = intended meaning, *Lit.* = literal meaning, PL = plural, SG = singular. In the examples where I display my analysis (i.e. deletion of structure), the information between square brackets and with a strikethrough corresponds to the deleted material. Accordingly, I include the elided material in the translation between parentheses.

correlate, the constituent to which the *wh*-phrase is related. The sluice is the interrogative clause that has the sentential portion elided. It comprises the remnant, the *wh*-phrase surviving ellipsis, and the ellipsis site, the structure that is missing:

- (3) *Ibonek* *norbaiti* *deitu* *dio,* *baina* *ez* *dakit* *nori*
 Ibon.ERG someone.DAT call AUX but not I.know who.DAT
 [*deitu* — *dion* — *Ibonek*].
 call AUX.C Ibon.ERG
 'Ibon called someone, but I don't know who (Ibon called).'

Sluicing could be located between two of the most studied fields of generative syntax, i.e. ellipsis and *wh*-movement (Merchant, 2006). Even if many different ellipses have been attested cross-linguistically, sluicing (together with VP ellipsis) has monopolised the research on ellipsis within this framework (Merchant, 2019). From Ross's seminal work (1969), this elliptical occurrence has been extensively researched in different languages: Japanese (Takahashi, 1994), Greek (Merchant, 2000), English (Merchant, 2001), Russian (Grebnyova, 2006), Dutch (van Craenenbroeck, 2010), and Romanian (Hoyt & Teodorescu, 2012), among others.

Nevertheless, in the literature concerning Basque linguistics, the works on ellipsis are rather scarce (see Amundarain, 1997; Duguine, 2013; Gastañaga, 1977; Martínez de la Hidalga, 2016; Salaberri, 1985; Vela-Plo, 2023), and none analyses clausal ellipsis in depth². There exists a particular gap in the literature with respect to clausal ellipsis, and more precisely, to sluicing in Basque. Hence, not only does this work take the first step by providing descriptive evidence, but it also proposes an analysis for Basque that will enable drawing cross-linguistic comparisons to reach a unified theory of sluicing.

Sluicing involves three relevant questions: (i) is there syntactic structure in the ellipsis site?; (ii) how is ellipsis licensed?; and (iii) how must the identity relation between the antecedent and the ellipsis site be established? Here I focus on the former³. Specifically, three different proposals have been postulated in the literature with respect to the question of structure. Some authors argue against the idea of internal syntax (*What You See Is What You Get* (WYSIWYG)); they assume that the *wh*-phrase is base-generated in the surface position, and that discourse plays a crucial role in the retrieval of meaning. That is, they defend a direct interpretive approach to ellipsis (i.a. Culicover & Jackendoff, 2005; Ginzburg & Sag, 2000; Sag & Nykiel, 2011). On the other hand, among the structuralist view, some authors defend that the elided material corresponds to a null

2 Other works include allusions to ellipsis in Basque, but do not expand on the topic (Artiagoitia, 1994; Eguzkitza, 1986; Goenaga, 1980; Laka, 1990; Ortiz de Urbina, 1989; de Rijk, 1972).

3 Regarding licensing, different categories have been claimed to license ellipsis; for instance, Merchant (2001, pp. 60-61) posits that a C head containing the [E]-feature can license the deletion of its complement IP. As for identity, the literature is divided into those who impose that the relationship between the antecedent and the ellipsis site is syntactic (i.a. Chung et al., 1995; Fiengo & May, 1994; Hankamer & Sag, 1976; Ross, 1969), semantic (i.a. van Craenenbroeck, 2010; Ginzburg & Sag, 2000; Hardt, 1993; Merchant, 2001), or hybrid (i.a. Chung, 2006; van Craenenbroeck, 2009).

proform in the syntax (*LF Copying*) (i.a. Chung et al., 1995; Lobeck, 1995); whereas others defend a full-fledged structure that undergoes deletion at the Phonological Form (PF) after movement of the *wh*-remnant (*move-and-delete*) (i.a. Lasnik, 2001; Merchant, 2001; Ross, 1969). All three views are represented in (4), (5) and (6), respectively:

- (4) Ibonek norbaiti deitu dio, baina ez dakit [_S nori].
 (5) Ibonek norbaiti deitu dio, baina ez dakit [_{CP} nori [_{wh}] [_{C'} [_{C°} [+Q] e] [_{TP} e]]].
 (6) Ibonek norbaiti deitu dio, baina ez dakit
 [_{CP} nori_i [_{wh}] [_{C'} [_{C°} [+Q] [~~deitu dio~~]_n] [_{TP} Ibonek t_i t_j]]]⁴.

The current work will follow the last line of reasoning (i.e. move-and-delete) by documenting new facts and providing novel conclusions concerning Basque sluicing.

The paper is laid out as follows. First, I briefly introduce the phenomenon under discussion (§ 2.1) and the necessary background regarding the relevant typological characteristics of Basque (§ 2.2). Section 3 covers the effects of sluicing in Basque, whereby I argue for an internal syntax. To be more concrete, I present case-matching effects (§ 3.1), binding conditions (§ 3.2), postposition-non-stranding data (§ 3.3), the sprouting phenomenon (§ 3.4), and locality effects (§ 3.5). Last, I conclude in section 4.

2. PHENOMENON UNDER DISCUSSION

2.1. Sluicing in Basque

As stated above, I analyse the elliptical occurrence of sluicing based on Basque data, which has hitherto not been examined. I follow the mainstream classification of ellipses (see van Craenenbroeck & Merchant, 2013) in studying sluicing as a subtype of clausal ellipsis⁵.

As far as its distribution is concerned, it can occur in main clauses (7), as well as in embedded clauses (see (1)–(6) above):

- (7) A: *Norbait iparraldera joan da.*
 someone.ABS north.to go AUX
 'Someone went to the north.'
 B: *Nor?*
 who.ABS
 'Who?'

4 Even if the representation in (6) suggests that sluicing consists of C' Deletion, Merchant (2001) defends IP/TP Deletion. The representation is modified to accommodate the facts in Basque. The specific target of deletion in sluicing in Basque is yet to be ascertained. I leave this issue open due to space limitations.

5 Fragments (i.e. fragment answers) are another subtype of clausal ellipsis. In this case, the element which survives the ellipsis is the non-*wh*-focus, namely, the (short) answer. I refer the reader to Hall (2019) for an overview of the topic.

As the sharp reader will notice, most examples shown in this work contain sluices with a *wh*-remnant that has an overt correlate (an indefinite mainly) in the antecedent. In addition to this type, other kinds of sluices are also attested in Basque, as exhibited below:

(8) *Sluices with adjunct wh-phrases*

<i>Jesus</i>	<i>hondartzara</i>	<i>joan</i>	<i>da,</i>	<i>baina</i>	<i>ez</i>	<i>dakit</i>	<i>nola.</i>
Jesus.ABS	beach.to	go	AUX	but	not	I.know	how

'Jesus went to the beach, but I don't know how.'

(9) *Sluices with implicit arguments* (i.e. sprouting; Chung et al., 1995)

<i>Jesusek</i>	<i>abestu</i>	<i>du,</i>	<i>baina</i>	<i>ez</i>	<i>dakit</i>	<i>zer.</i>
Jesus.ERG	sing	AUX	but	not	I.know	what.ABS

'Jesus sang, but I don't know what.'

(10) *Contrast sluices*

<i>Jesusek</i>	<i>sagar</i>	<i>bat</i>	<i>erosi</i>	<i>du,</i>	<i>baina</i>	<i>ez</i>	<i>dakit</i>
Jesus.ERG	apple	one.ABS	buy	AUX	but	not	I.know

<i>zenbat</i>	<i>madari.</i>
how.many	pear.ABS

'Jesus bought an apple, but I don't know how many pears.'

The example in (8) represents the type of sluicing where the *wh*-phrase consists of an adjunct. In (9) an example of *sprouting* is shown, namely, the sluicing structure where the *wh*-remnant has a correlate in the antecedent clause which is implicit or covert. Last, the *wh*-phrase in sluicing can be contrastive with respect to the correlate, as in (10). In the following lines, we will engage in a discussion primarily concerning the sentences of the type of (1)–(6), that is, sluicing in embedded sentences with an indefinite correlate in the antecedent. Nonetheless, sentences with adjuncts (8) or implicit arguments (9) will be analysed as well.

2.2. Some background on Basque syntax

In order to comprehend the main arguments of this paper, some general properties of the syntax of Basque must be addressed first. Two types of movement of constituents will be introduced: *wh*-movement and focus movement.

Even though Basque is flexible with respect to word order, it is considered an SOV language. The fundamental reason for this is that in sentences where no constituent is moved or focused, SOV is the unmarked order employed (Elordieta, 2001; Ortiz de Urbina, 1989). To be more specific, Basque has S-IO-DO-V as the neutral word order (Elordieta, 2001; Euskaltzaindia, 1987, 2021; Irurtzun, 2016; Ortiz de Urbina, 1989, 2003; de Rijk, 1969, 2008). The arrangement of the constituents in Basque serves as a mechanism to enquire information or to convey different information-structures.

2.2.1. Wh-movement in Basque

On the one hand, in Basque *wh*-question formation, the canonical word order is disrupted, and the *wh*-phrase is immediately followed by the finite verb (a verbal complex constituted by the lexical verb and the auxiliary verb in most of the examples here). This type of displacement has been analysed as *wh*-movement; that is, the *wh*-constituent moves to the specifier position of the CP, and it is followed by T-to-C movement (Irurtzun, 2007; Ortiz de Urbina, 1989), as in (11b) and (11c):

- (11) a. *Anek* *janaria* *ekarri* *du.*
 Ane.ERG food.ABS bring AUX
 'Ane brought the food.'
- b. [*Nork*]_i [*ekarri du*]_j *t*_i *janaria* *t*_j[?]
 who.ERG bring AUX food.ABS
 'Who brought the food?'
- c. [*Zer*]_i [*ekarri du*]_j *Anek* *t*_i *t*_j[?]
 what.ABS bring AUX Ane.ERG
 'What did Ane bring?'

The canonical word order is displayed in the baseline declarative sentence in (11a). The questions in (11b) and (11c) request different types of information: the former enquires about the agent of the action (*Ane*), whereas the latter about the patient (*janaria* 'the food'). Accordingly, *nork* 'who' in (11b) and *zer* 'what' in (11c) undergo movement to Spec,CP. In both cases, the finite verb also moves from T to C, which accounts for the fact that *wh*-questions do not exhibit verb-final word order (the otherwise neutral order in Basque, but unacceptable in questions (see (13) below)).

2.2.2. Focus movement in Basque

On the other hand, narrow foci also display similar order restrictions, in the sense that they are placed right preceding the finite verb as well. Although nuclear focus may be *in-situ* (Elordieta, 2001), narrow foci (F) such as those exemplified in (12b) and (12c) involve movement to CP. The elements located after the verbal complex are therefore given information (G) (Elordieta, 2001):

- (12) a. *Anek* *janaria* *ekarri* *du.*
 Ane.ERG food.ABS bring AUX
 'Ane brought the food.'
- b. [_F *Anek*]_i [*ekarri du*]_j *t*_i [_G *janaria*] *t*_j
 Ane.ERG bring AUX food.ABS
 'ANE brought the food.'
- c. [_F *Janaria*]_i [*ekarri du*]_j [_G *Anek*] *t*_i *t*_j
 food.ABS bring AUX Ane.ERG
 'Ane brought THE FOOD.'

In the control sentence (12a) (repeated from (11a)), the neutral word order is presented. In (12b) and (12c), however, different elements are focalised: the agent *Ane* and the patient *janaria* ‘food’, respectively.

As many authors have pointed out (Eguzkitza, 1986; Elordieta, 2001; Irurtzun, 2016; Ortiz de Urbina, 1989; de Rijk, 1969), if the focused phrase (or the *wh*-phrase) and the finite verb are not adjacent, the sentence becomes unacceptable⁶. This occurs when posing a question or focalising any element without verb displacement (T-to-C movement):

- (13) a. **[Zer]_i Anek t_i ekarri du?*
 what.ABS Ane.ERG bring AUX
Int. ‘What did Ane bring?’
- b. **[_FJanaria]_i Anek t_i ekarri du.*
 food.ABS Ane.ERG bring AUX
Int. ‘Ane brought THE FOOD.’

Evidence in favour of movement in these constructions comes from the fact that both phenomena show sensitivity towards islands. The sentences in (14) cover extraction out of a coordinated phrase and those in (15) extraction out of adjuncts:

- (14) a. *Jonek [saldo eta legatza] nahi ditu.*
 Jon stock and hake want AUX
 ‘Jon wants stock and hake.’
- b. **Zer nahi ditu Jonek [saldo eta t]?*
 what want AUX Jon stock and
Lit. ‘What does Jon want stock and?’
- c. **[_FLegatza] nahi du Jonek [saldo eta t].*
 hake want AUX Jon stock and
 ‘Jon wants stock and HAKE.’

(Irurtzun, 2016, p. 251, ex. (10a), (10b) and (11a))

- (15) a. *Jon [abestia entzun duelako] poztu da.*
 Jon song hear AUX.because get.happy AUX
 ‘Jon got happy because he heard the song.’
- b. **Zer poztu da Jon [t entzun duelako]?*
 what get.happy AUX Jon hear AUX.because
Lit. ‘What did Jon get happy because he heard?’
- c. **[_FAbestia] poztu da Jon [t entzun duelako].*
 song get.happy AUX Jon hear AUX.because
Lit. ‘Jon got happy because he heard THE SONG.’

(Irurtzun, 2016, p. 252, ex. (12))

⁶ Even if this is true in most varieties of Basque, in Labourdian Basque there is an ongoing change among young speakers (Duguine & Irurtzun, 2014, 2021). The constraint on verb adjacency seems to be less strict for them. I thank one of the anonymous reviewers for pointing out this fact to me.

In (14b) and (14c), regardless of the fact that the sentence is a question or a focus structure, an element cannot be extracted out of a coordinated phrase. In the same fashion, adjunct constituents also impose an island restriction upon extracting elements contained therein, as in (15b) and (15c). *Wh*-phrases and focus can therefore be considered two sides of the same coin: one asks the question and the other answers it. That is why focus has been often labelled as *galdegaia* (*lit.* ‘theme of the question’).

After presenting the relevant concepts related to Basque *wh*-movement, which are central to the discussion, we will turn to the discussion on sluicing.

3. SLUICING IN BASQUE

As anticipated in the introduction, for sluicing structures in Basque, I posit a move-and-delete analysis. More precisely, I defend that there is a full-fledged syntactic structure out of which the *wh*-phrase moves before deletion at PF. In Basque, *wh*-movement is independently attested (§ 2.1), so it would be unsurprising to find it under sluicing. As far as the sluice is concerned, in this section I will show that it consists of a complete structure which undergoes deletion.

Connectivity effects have been frequently cited (Abels, 2019; Barros, 2014; Merchant, 2001; Ross, 1969; Vicente, 2014), since they successfully demonstrate that the sluicing site contains a syntactic structure therein. To account for case-matching, binding, and adposition-(non-)stranding phenomena, it is plausible to argue that the ellipsis site consists of a fully developed structure in the syntax that is elided at PF. That is, the remnant is related to unpronounced material within the ellipsis site. Otherwise, if no such internal syntax were assumed, it would become quite challenging to give an explanation for: (i) how the *wh*-phrase bears an identical case to its correlate in the antecedent (§ 3.1); (ii) how seeming violations of the Principles of the Binding Theory render acceptable sentences (§ 3.2); and (iii) how some languages are able to strand the adposition associated with the remnant *wh*-phrase (§ 3.3). I focus on how the deletion-based approach appropriately explains the Basque data.

3.1. Case matching

Case matching is one of the main arguments to assert that the ellipsis site comprises syntactic structure. Languages with rich case paradigms are strict with case, and thus, they do not allow mismatches between the correlate and the remnant *wh*-phrase, which led Merchant (2001) to postulate the following generalisation:

- (16) *Form-identity generalization I: case-matching* (Merchant, 2001, p. 91)
The sluiced *wh*-phrase must bear the case that its correlate bears.

Ross (1969) already collected this effect, showing that in German the correlate and the remnant *wh*-phrase must bear the same case, as in (17) and (18):

- (17) *Er will jemandem schmeicheln, aber sie wissen*
 he want.to someone.DAT flatter but they know
*nicht {*wen / wem}.*
 not who.ACC who.DAT
 'He wants to flatter somebody, but they don't know who.'
 (Ross, 1969, p. 253, ex. (4))

- (18) *Er will jemanden loben, aber sie wissen nicht*
 he want.to someone.ACC praise but they know not
*{*wem / wen}.*
 who.DAT who.ACC
 'He wants to praise someone, but they don't know who.'
 (Ross, 1969, p. 254, ex. (5))

The predicate *schmeicheln* 'to flatter' in (17) requires the correlate to bear the dative case. Dative is also the only case available for the *wh*-phrase. Contrarily, the predicate *loben* 'to praise' in (18) poses different requirements upon its arguments; the correlate is necessarily marked with the accusative case, and so is the *wh*-phrase. Barros (2014) defines case matching as 'stubborn', as all the cases except for the one borne by the correlate are blocked, especially in morphologically complex languages⁷:

- (19) *Stubborn case-matching* (Barros, 2014, p. 62)
 In sluicing, given a correlate, C, and a remnant, R, if C is a case-bearing category, R and C must have the same case morphology.

Similarly, Basque provides evidence on the side of arguing for a full syntactic structure. It is an ergative language, and its case paradigm consists of three core argument cases: ergative, absolutive, and dative. Simplifying much the distribution of case, one could generalise that the ergative case marks the subject of unergative (intransitive) predicates and transitive predicates; the absolutive case marks the subject of unaccusative (intransitive) predicates and the direct object of transitive predicates; and the dative marks the indirect object. For instance, in a sentence with a ditransitive predicate like *aurkeztu* 'to introduce', the case marking works as explicitly itemised in (20):

⁷ See Vicente (2015) for some instances of languages that allow case mismatches under sluicing. A reviewer wonders whether we could correlate case mismatches to the availability of non-isomorphic sources for sluicing (Barros et al., 2014). Although Vicente (2015) does not provide a conclusive analysis concerning case mismatches, adposition mismatches have been used to argue in favour of non-isomorphic sluices (i.a. Rodrigues et al., 2009; Vicente, 2008). Even if the languages that allow case mismatches and non-isomorphic sources constituted a uniform class, Basque would be a potential counterexample, as it does not allow case mismatches, but short sources are available (§ 3.5).

- (20) *Ibon-(e)k* *Aitor(r)-i* *Ane-ø* *aurkeztu*
 Ibon-ERG Aitor-DAT Ane-ABS introduce
d-i-o-ø.
 3SG.ABS-AUX-3SG.DAT-3SG.ERG
 'Ibon introduced Ane to Aitor.'

The subject is marked with the ergative, the indirect object with the dative, and the direct object with the absolutive. In sluicing contexts in Basque, the correlate and the *wh*-phrase obligatorily exhibit the same case. Taking the sentence in (20) as baseline, the three arguments can be enquired about under sluicing, as presented in (21):

- (21) a. A: *Norbaitek* *Aitorri* *Ane* *aurkeztu* *dio.*
 someone.ERG Aitor.DAT Ane.ABS introduce AUX
 'Someone introduced Ane to Aitor.'
 B: *Nork?*
 who.ERG
 'Who?'
- b. A: *Ibonek* *norbaiti* *Ane* *aurkeztu* *dio.*
 Ibon.ERG someone.DAT Ane.ABS introduce AUX
 'Ibon introduced Ane to someone.'
 B: *Nori?*
 who.DAT
 'To whom?'
- c. A: *Ibonek* *Aitorri* *norbait* *aurkeztu* *dio.*
 Ibon.ERG Aitor.DAT someone.ABS introduce AUX
 'Ibon introduced someone to Aitor.'
 B: *Nor?*
 who.ABS
 'Who?'

The exchanges in (21) are instances of sluicing in main clauses which evidence that the *wh*-remnants obligatorily share the same case as their correlates (ergative in (21aB), dative in (21bB), and absolutive in (21cB)⁸. In the same vein, sluicing in embedded clauses exhibits the same case-matching pattern:

8 One reviewer draws my attention to the fact that case/adposition mismatches are possible in Basque outside sluicing, especially in the communicative exchanges among young speakers:

- (i) A: *Zer ordutan da kontzertua?*
 what time.at is concert
 'What time is the concert?'
 B: *Hamarrak eta laurden.*
 ten and quarter
 'Quarter past ten.'
 (cf. *Hamarrak eta laurdenetan.*)

I myself agree with the judgement and find it quite common in informal conversations among young people. However, sluicing in Basque disallows case mismatches.

- (22) a. *Norbaitek* *Aitorri* *Ane* *aurkeztu* *dio*,
 someone.ERG Aitor.DAT Ane.ABS introduce AUX
*baina ez dakit {nork / *nori / *nor}*.
 but not I.know who.ERG who.DAT who.ABS
 'Someone introduced Ane to Aitor, but I don't know who.'
- b. *Ibonek* *norbaiti* *Ane* *aurkeztu* *dio*,
 Ibon.ERG someone.DAT Ane.ABS introduce AUX
*baina ez dakit {*nork / nori / *nor}*.
 but not I.know who.ERG who.DAT who.ABS
 'Ibon introduced Ane to someone, but I don't know to whom.'
- c. *Ibonek* *Aitorri* *norbait* *aurkeztu* *dio*,
 Ibon.ERG Aitor.DAT someone.ABS introduce AUX
*baina ez dakit {*nork / *nori / nor}*.
 but not I.know who.ERG who.DAT who.ABS
 'Ibon introduced someone to Aitor, but I don't know who.'

In (22a), the correlate and the *wh*-phrase are both signalled with the ergative, in (22b) with the dative, and in (22c) with the absolutive. These examples show that case matching is strictly uniform across clauses and with all the relevant cases. Whereas *wh*-remnants in (21) and (22) are morphologically simple, complex *wh*-phrases behave correspondingly:

- (23) a. *Norbaiten* *lagunak* *Aitorri* *Ane* *aurkeztu*
 someone.GEN friend.ERG Aitor.DAT Ane.ABS introduce
dio, baina ez dakit {noren lagunak /
 AUX but not I.know who.GEN friend.ERG
**noren lagunari / *noren laguna}*.
 who.GEN friend.DAT who.GEN friend.ABS
 'Someone's friend introduced Ane to Aitor, but I don't know whose friend.'
- b. *Ibonek* *norbaiten* *lagunari* *Ane* *aurkeztu*
 Ibon.ERG someone.GEN friend.DAT Ane.ABS introduce
*dio, baina ez dakit {*noren lagunak /*
 AUX but not I.know who.GEN friend.ERG
*noren lagunari / *noren laguna}*.
 who.GEN friend.DAT who.GEN friend.ABS
 'Ibon introduced Ane to someone's friend, but I don't know to whose friend.'
- c. *Ibonek* *Aitorri* *norbaiten* *laguna* *aurkeztu*
 Ibon.ERG Aitor.DAT someone.GEN friend.ABS introduce
*dio, baina ez dakit {*noren lagunak /*
 AUX but not I.know who.GEN friend.ERG
**noren lagunari / noren laguna}*.
 who.GEN friend.DAT who.GEN friend.ABS
 'Ibon introduced someone's friend to Aitor, but I don't know whose friend.'

Case-matching facts in Basque indicate that case is «stubborn»: the *wh*-phrase must correspond to its correlate in terms of case marking across clauses, with all the cases, and

regardless of its morphological complexity⁹. This entails that there must be an unpronounced predicate in the ellipsis site identical to the one assigning case to the correlate in the antecedent clause. Ergo, it follows that the sluicing site comprises an internal syntactic structure. The deletion analysis proposed here for examples such as (22a) is shown in (24):

- (24) ... *baina ez dakit {nork / *nori / *nor}_k*
 but not I.know who.ERG who.DAT who.ABS
[aurkeztu _____ dion _____ t_k Aitorri _____ Ane]¹⁰.
 introduce AUX.C Aitor.DAT Ane.ABS
 '... but I don't know who (introduced Ane to Aitor).'

Having exposed the case-matching evidence in favour of structure, in the next section I will demonstrate that binding phenomena point in the same direction.

3.2. Binding

Another oft-cited connectivity effect is binding (i.a. Merchant, 2006). DPs constrained by the Principles of the Binding Theory support the existence of syntactic structure within the ellipsis site, since the relevant relationships require the presence of two elements contained within a local domain (i.e. the binder and the bound element).

To prepare the ground for the subsequent discussion, I briefly show that in Basque anaphors obey Principle A (25), R-expressions (Referential expressions) respect Principle C (26), and pronouns with bound interpretations need to be c-commanded (27):

- (25) a. *Alaitzek_i [bere burua]_i maite du.*
 Alaitz.ERG herself.ABS love AUX
 'Alaitz loves herself.'
- b. **[Bere buruak]_i Alaitz_i maite du.*
 herself.ERG Alaitz.ABS love AUX
 Lit. 'Herself loves Alaitz.'
- (26) *Constanek_i [gizon bat]_{*ij} ikusi du.*
 Constan.ERG man one.ABS see AUX
 'Constan saw a man.'

9 One of the reviewers would not say that case is stubborn in Basque. I have checked the judgements of native speakers and found no one who accepts an instance of sluicing with a case mismatch. The only environment for case mismatch concerns idiolectal differences regarding DOM (Jürgen Etxeberria, p.c.):

- (i) A: *Norbait ekarri d-u-t autoan.*
 someone.ABS bring 3SG.ABS-AUX-1SG.ERG car.in
 'I brought someone by car.'
- B: *Nori [ekarri d-i-o-zu _____ autoan]?*
 who.DAT bring 3SG.ABS-AUX-3SG.DAT-2SG.ERG car.in
 Lit. 'To whom (did you bring by car)?'

10 I use traces for ease of exposition, but I assume a copy-based theory of movement (i.a. Chomsky, 1995; Corver & Nunes, 2007; Nunes, 2004).

- (27) a. [*Musikari orok*]_i *gustuko* *du* *bere*_i *instrumentua*.
 musician every.ERG like AUX his instrument.ABS
 'Every musician likes his instrument.'
- b. **Bere*_i *instrumentuak* *zorutzen* *du* [*musikari oro*]_i.
 his instrument.ERG drive.crazy AUX musician every.ABS
Lit. 'His instrument drives every musician crazy.'

The reflexive anaphor *bere burua* 'herself' must be bound (i.e. c-commanded by the antecedent), for the sentence to be acceptable in Basque (25a), otherwise it is not (25b). Conversely, R-expressions are obligatorily free (i.e. not c-commanded). Thus, (26) is unacceptable if *Constan* and *gizon bat* 'a man' refer to the same entity, as the former c-commands the latter. Last, the possessive pronoun *bere* obtains a bound reading (27a), as it is c-commanded by a quantifier antecedent, namely, *musikari orok* 'every musician', but it does not work the other way around (27b).

In the following lines, some examples are displayed to illustrate that in elliptical contexts too, the whole paradigm of Basque DPs behave in accordance with the Binding Theory. For instance, reflexive (28) and reciprocal anaphors (29) in Basque obey Principle A:

- (28) *Nahia*_k *bere* *lagunen* *argazki* *batzuk* *inprimatu*
 Nahia.ERG her friends.GEN picture some.ABS print
ditu, *baina* *ez* *dakit* [[*bere buruaren*]_i *zein* *argazki*].
 AUX but not I.know herself.GEN which picture.ABS
 'Nahia printed some pictures of her friends, but I don't know which pictures of HERSELF.'
- (29) [*Olatzek* *eta* *Nahia*]_k *haien* *lagunen* *argazki*
 Olatz.ERG and Nahia.ERG their friends.GEN picture
batzuk *inprimatu* *dituzte*, *baina* *ez* *dakit*
 some.ABS print AUX but not I.know
 [[*elkarren*]_i *zein* *argazki*].
 each other.GEN which picture.ABS
 'Olatz and Nahia printed some pictures of their friends, but I don't know which pictures of EACH OTHER.'

The reflexive *bere burua* 'herself' (28) and the reciprocal *elkar* 'each other' (29) are constrained by Principle A, which requires anaphors to be locally bound via c-command. As there is no pronounced binder in the second instance of each anaphor, a plausible explanation is to assume an internal structure where, before the *wh*-phrase moves, there is a c-commanding antecedent binding a lower copy of that *wh*-phrase. The requisite for a binder justifies the presence of a larger syntactic structure where it is contained. This is the analysis for the sentences (28) and (29), respectively:

- (30) ... *baina ez dakit [[bere buruaren]_i zein argazki]_k*
 but not I.know herself.GEN which picture.ABS
~~*[inprimatu dituen Nahia]_i [[t]_k]*~~
 print AUX.C Nahia.ERG
 '... but I don't know which pictures of HERSELF (Nahia printed).'

- (31) ... *baina ez dakit [[elkarren]_i zein argazki]_k*
 but not I.know each other.GEN which picture.ABS
~~*[inprimatu dituzten [Olatzek eta Nahia]_i [[t]_k]*~~
 print AUX.C Olatz.ERG and Nahia.ERG
 '... but I don't know which pictures of EACH OTHER (Olatz and Nahia printed).'

As claimed above, R-expressions cannot be bound under any circumstance. Accordingly, these elements in Basque sluicing expose the same pattern:

- (32) **Hark_i bere arrebaren abesti hauek entzun ditu,*
 he.ERG his sister.GEN song these.ABS listen.to AUX
baina ez dakit [[Constanen]_i zein abesti].
 but not I.know Constan.GEN which song.ABS
Lit. 'He listened to these songs of his sister, but I don't know which songs of CONSTAN.'

If the R-expression *Constan* in (32) is interpreted as referring to the same entity as the pronoun *hark* 'he', the sentence becomes unacceptable. As with anaphors, the presence of internal structure allows for an explanation: the *wh*-remnant is base-generated in the object position of an elliptical site, where it is bound. Consequently, a violation of Principle C arises, as presented in the deletion analysis in (33):

- (33) * ... *baina ez dakit [[Constanen]_i zein abesti]_k*
 but not I.know Constan.GEN which song.ABS
~~*[entzun dituen hark_i [[t]_k]*~~
 listen.to AUX.C he.ERG
Lit. '... but I don't know which songs of CONSTAN (he listened to).'

Yet the rationale followed hitherto could be put at stake if we look at another data:

- (34) *Lagunek_j Gabriela_i goraipatu dute, baina berak_i ez*
 friends.ERG Gabriela.ABS praise AUX but she.ERG not
daki zergatik.
 know why
 'Friends praised Gabriela, but she doesn't know why.'

Given the deletion analysis, the acceptability of (34) is somewhat unexpected. If we reconstruct the pre-sluice of the sentence in (34) with an internal structure isomorphic to the antecedent clause, the outcome renders an unacceptable sentence, as in (35):

- (35) **Lagunek_i Gabriela_i goraipatu dute, baina berak_i ez daki zergatik_k [goraipatu duten lagunek_j Gabriela_i t_j].*
 friends.ERG Gabriela.ABS praise AUX but she.ERG not know why praise AUX.C friends.ERG Gabriela.ABS
Lit. 'Friends praised Gabriela, but she doesn't know why friends praised Gabriela.'

I assume that the sentence in (35) is unacceptable due to the fact that the R-expression *Gabriela* is bound by the pronoun *bera* 'she', violating thus Principle C. Nonetheless, if the R-expression is replaced by a pronoun, the sentence is acceptable in Basque:

- (36) *Lagunek_i Gabriela_i goraipatu dute, baina berak_i ez daki zergatik_k [goraipatu duten lagunek_j bera_i t_j].*
 friends.ERG Gabriela.ABS praise AUX but she.ERG not know why praise AUX.C friends.ERG her.ABS
 'Friends praised Gabriela, but she doesn't know why friends praised her.'

In fact, the sluices in sentences of the type of (34) have been postulated to undergo vehicle change effects (see Fiengo & May, 1994):

- (37) *Vehicle change* (Fiengo & May, 1994, p. 218)
 In a reconstruction, a nominal can take any syntactic form so long as its indexical structure (type and value) is unchanged (modulo identity for β -occurrences)¹¹.

I propose that the direct object of the embedded clause is transformed from *Gabriela* into *bera*¹². The violation of Principle C in (35) is therefore circumvented. Moreover, the sentence with the pronoun (36) is more natural in Basque than the sentence with the nominal (35). The vehicle change analysis can account for these facts regarding sluicing. This is the analysis for (34):

- (38) ... *baina berak_i ez daki zergatik_k*
 but she.ERG not know why
[goraipatu — duten — lagunek_j — bera_i — t_j].
 praise AUX.C friends.ERG her.ABS
 '... but she doesn't know why (friends praised her).'

11 According to Fiengo and May (1994), non-predicative nominal phrases contain two indices: one, represented by an integer, expresses the interpretative value of the nominal, and another one, represented by α or β , signifies the nature of the value. The index represented by β depends on another nominal expression to have a value.

12 Regarding semantics, both elements (*Gabriela* and *bera*) are equivalent as they denote the same individual. That is, under the assignment function g , considering that $\llbracket \textit{bera}_3 \rrbracket^g = \textit{Gabriela}$, a proposition including *bera*₃ checked against the assignment function g will render identical truth-conditions as the proposition where *bera*₃ is replaced by *Gabriela* (adapted from Merchant, 2019).

Bound variable pronouns constitute the concluding piece of evidence in terms of connectivity effects. A bound pronoun has a quantified DP (e.g. *every*, *each*) as its antecedent, and the syntactic relationship between both elements is determined by c-command, rendering thereby a bound interpretation. The subsequent example exhibits the behaviour of these pronouns under sluiced environments:

- (39) [*Musikari orok*]_i *gustuko* *du* *bere*_i *instrumentua*,
 musician every.ERG like AUX his instrument.ABS
baina ez dakit *[[bere]*_i *zein abesti*].
 but not I.know his which song.ABS
 'Every musician likes his instrument, but I don't know which of his SONGS.'

In (39) the quantified DP *musikari orok* 'every musician' scopes over the first clause, binding the first instance of the pronoun *bere* 'his'. Considering that the pronoun in the second clause has a potential bound reading, it needs another quantified element to bind it. A reasonable answer dwells in arguing that the ellipsis site consists of a regular syntactic structure which contains the quantificational DP. In consequence, this phenomenon as well lends support to the deletion approach to sluicing:

- (40) ... *baina ez dakit* *[[bere]*_i *zein abesti*]_k
 but not I.know his which song.ABS
~~*[gustuko duen [musikari orok]*_i *[[t]]*]_k~~
 like AUX.C musician every.ERG
 '... but I don't know which of his SONGS (every musician likes).'

As shown in this section, in Basque sluicing, diverse binding phenomena (reflexive and reciprocal anaphors, R-expressions, and bound variable pronouns) strongly suggest that they are interpreted within a structure containing a lower copy of the *wh*-phrase. The conclusion drawn from the empirical results, then, is that the ellipsis site contains internal syntax.

3.3. Adposition (non-)stranding

A wide range of data conforms to a cross-linguistic correlation between adposition stranding in *wh*-movement and sluicing: in languages that permit leaving behind the adposition in *wh*-movement contexts, omission of such element is possible in sluicing as well (e.g. Frisian, Icelandic, and Norwegian); on the contrary, those languages that do not allow stranding adpositions in overt syntax, do not allow it either in elliptical contexts (e.g. Basque, Greek, and Hebrew). This pattern across languages led Merchant (2001) to hypothesise that the syntax of non-elliptical and elliptical structures might be analogous. The generalisation is formulated in (41):

- (41) *Form-identity generalization II: preposition-stranding* (Merchant, 2001, p. 92)
 A language *L* will allow preposition stranding under sluicing iff *L* allows preposition stranding under regular *wh*-movement.

For illustrative purposes, I only reproduce part of the evidence from Merchant (2001); a specific language which allows adposition stranding (Norwegian) and another one which does not (Greek) are exhibited:

(42) *Norwegian*

- a. *Hvem har Per snakket med?*
 who has Per talked with
 'Who did Per talk with?'
- b. *Per har snakket med noen, men jeg vet ikke (med) hvem.*
 Per has talked with someone but I know not with who
 'Per talked with someone, but I don't know with who.'

(Adapted from Merchant, 2001, p. 93, ex. (25))

(43) *Greek*

- a. **Pjon milise me?*
 who she.spoke with
 Int. 'Who did she speak with?'
- b. *I Anna milise me kapjon, alla dhe ksero *(me)*
 the Anna spoke with someone but not I.know with
pjon.
 who
 'Anna spoke with someone, but I don't know with who.'

(Adapted from Merchant, 2001, p. 94, ex. (28))

The example from Norwegian in (42) showcases that some languages allow preposition stranding in regular overt *wh*-movement, and thus, such elements can also be stranded in sluiced structures. Conversely, in the Greek data in (43), the preposition is obligatorily displaced with the *wh*-phrase in question formation, and so it is under elliptical contexts. Merchant's prediction is therefore borne out¹³.

Basque has postpositions rather than prepositions. The central concern here, though, is the behaviour of Basque postpositions with respect to *wh*-movement and sluicing; namely, whether Basque conforms to Merchant's (2001) generalisation or not. As shown below, this language does not allow postposition stranding in regular *wh*-movement (44a), and thus, neither does it under sluicing (44b):

(44) *Basque*

- a. **Nor hitz egin zuen -ekin?*
 who talk.to AUX with
 Int. 'Who did she talk with?'

13 See Szczegielniak (2005), Vicente (2008) and Rodrigues et al. (2009) for Spanish and Brazilian Portuguese.

- b. *Ana-k norbait-ekin hitz egin zuen, baina ez dakit nor-*(ekin).*
 Ana-ERG someone-with talk.to AUX but not
 I.know who-with
 'Ana talked with someone, but I don't know with who.'
 (Adapted from Merchant, 2001, p. 100, ex. (45))

For the sake of completeness, I provide two more sentence pairs with the benefactive postposition *-(en)tzat* 'for' (45) and the allative postposition *-(en)gana* 'to' (46).

- (45) a. **Nor ekarri du Amaiak aterkia -en-tzat?*¹⁴
 who bring AUX Amaia.ERG umbrella.ABS GEN-for
 Int. 'Who did Amaia bring the umbrella for?'
 (cf. *Norentzat ekarri du Amaiak aterkia?*)
- b. *Amaiak aterkia ekarri du norbait-en-tzat,*
 Amaia.ERG umbrella.ABS bring AUX someone-GEN-for
baina ez dakit nor-(en-tzat).*
 but not I.know who-GEN-for
 'Amaia brought the umbrella for someone, but I don't know for whom.'
- (46) a. **Nor joan da Alaitz goizean -en-gana?*
 who go AUX Alaitz.ABS morning.in GEN-to
 Int. 'Who did Alaitz go to in the morning?'
 (cf. *Norengana joan da Alaitz goizean?*)
- b. *Alaitz norbait-en-gana joan da goizean, baina*
 Alaitz.ABS someone-GEN-to go AUX morning.in but
ez dakit nor-(en-gana).*
 not I.know who-GEN-to
 'Alaitz went to someone in the morning, but I don't know to whom.'

As the distinction between «attached» postpositions (e.g. *-(re)kin* 'with') and «free» postpositions (e.g. *kontra* 'against') is based on writing conventions (Euskaltzaindia, 2021, p. 766), we would not expect different patterns regarding stranding¹⁵. The prediction is borne out: Basque does not allow adposition stranding with free postpositions. For instance, the postpositions *bitartez* 'through' (47) and *kontra* 'against' (48) need to be pied-piped in the movement of the *wh*-element:

14 If the genitive marker moves but the postposition does not, the sentence is still unacceptable:

(i) **Noren ekarri du Amaiak aterkia -tzat?*
 who.GEN bring AUX Amaia.ERG umbrella.ABS for
 Int. 'Who did Amaia bring the umbrella for?'

15 As a matter of fact, both types of postpositions select an NP/DP and project a Postpositional Phrase (PP). The reason for employing these terms is therefore descriptive and has no theoretical implication whatsoever.

- (47) a. **Noren enteratu da Leire bitartez?*
 who.GEN find.out AUX Leire.ABS through
Int. 'Who did Leire find out through?'
 (cf. *Noren bitartez enteratu da Leire?*)
- b. *Leire norbaiten bitartez enteratu da,*
 Leire.ABS someone.GEN through find.out AUX
*baina ez dakit noren *(bitartez).*
 but not I.know who.GEN through
 'Leire found out through someone, but I don't know through whom.'
- (48) a. **Noren egin du Ianirek kontra?*
 who.GEN do AUX Ianire.ERG against
Int. 'Who did Ianire go against?'
 (cf. *Noren kontra egin du Ianirek?*)
- b. *Ianirek norbaiten kontra egin du, baina ez*
 Ianire.ERG someone.GEN against do AUX but not
*dakit noren *(kontra).*
 I.know who.GEN against
 'Ianire went against someone, but I don't know against whom.'

In the *wh*-questions in (47a) and (48a), the genitive case (*-en*) is attached to the *wh*-phrase and thus moves to Spec,CP. Nevertheless, as the postposition is stranded in its base-generated position, the sentences render an unacceptable result. In other words, the whole Postpositional Phrase (PP) must undergo *wh*-movement in these cases: in the former, [_{PP} [_{DP} *nor-en*] *bitartez*] needs to displace, and in the latter, [_{PP} [_{DP} *nor-en*] *kontra*]. Sluicing needs to operate accordingly, as shown in the sluices in (47b) and (48b), respectively.

In consequence, postpositions must undergo pied-piping regardless of their status as a morpheme (bound vs. free). These data can be integrated within my proposal; the deletion analysis postulated throughout can account for the Basque data that pertain both to attached postpositions (44) and to free postpositions (47) analysed above:

- (49) ... *baina ez dakit [nor-*(ekin)]_k [hitze egin zuen Ana-~~_____~~ t_k].*
 but not I.know who-with talk.to AUX.C Ana.ERG
 '... but I don't know with whom (Ana talked).'
- (50) ... *baina ez dakit [noren *(bitartez)]_k*
 but not I.know who.GEN through
~~[enteratu _____ den _____ Leire _____ t_k].~~
 find.out AUX.C Leire.ABS
 '... but I don't know through whom (Leire found out).'

3.4. Sprouting

A further phenomenon worth investigating is related to sprouted structures. Sprouting is the sluicing phenomenon in which the remnant does not have an explicit correlate

in the antecedent clause. For these sentences to be successful, the sprouted remnant needs to be understood as an argument or adjunct (Chung, 2006; Chung et al., 1995)¹⁶.

Basque allows to sprout the argument of the predicate (51a), as well as an adjunct (51b). Nonetheless, constituents which are uninterpretable with respect to the antecedent clause cannot undergo sprouting; information which is not framed or does not fit the verb in the antecedent clause is not permitted in the remnant of the sluice; thereby the sentence in (51c) is unacceptable:

- (51) a. *Jonek abestu du, baina ez dakit zer.*
 Jone.ERG sing AUX but not I.know what.ABS
 'Jone sang, but I don't know what.'
- b. *Jone mendira joan da, baina ez dakit noiz.*
 Jone.ABS mountain.to go AUX but not I.know when
 'Jone went to the mountain, but I don't know when.'
- c. **Jone etxera joan da, baina ez dakit norentzat.*
 Jone.ABS home.to go AUX but not I.know who.for
Lit. 'Jone went home, but I don't know for whom.'

In the sentence in (51a) the argument of the predicate is being sprouted: the theme of the predicate *abestu* 'sing'. Adjunct sprouting structures can also be found in Basque: in (51b) *noiz* 'when' is sprouted. But the sentence in (51c) is unacceptable, as it makes the ellipsis site uninterpretable with respect to the antecedent; *norentzat* 'for who' is not semantically related to the antecedent predicate *joan* 'go'. The deletion analysis proposed for the sprouted sentences in (51) is provided below:

- (52) a. ... *baina ez dakit zer_k*
 but not I.know what.ABS
~~*[abestu duen Jonek t_{jd}]*~~
 sing AUX.C Jone.ERG
 '... but I don't know what (Jone sang).'
- b. ... *baina ez dakit noiz_k*
 but not I.know when
~~*[joan den Jone mendira t_{jd}]*~~
 go AUX.C Jone.ABS mountain.to
 '... but I don't know when (Jone went to the mountain).'

16 Sprouting is apparently problematic for Merchant's (2001) Form-identity generalization II; some languages allow preposition stranding in *wh*-movement, but not under sprouting:

- (i) a. They're jealous, but it's unclear of who.
 b. *They're jealous, but it's unclear who(m).

(Chung, 2006, pp. 79-80, ex. (18a) and (19a))

Chung (2006) offers an alternative to syntactic and semantic approaches:

- (ii) *No new words* (Chung, 2006, p. 83)

Every lexical item in the numeration of the sluice that ends up (only) in the elided IP must be identical to an item in the numeration of the antecedent CP.

To put it simply, no words can belong to the ellipsis site that are not already included in the antecedent clause.

- c. *... *baina ez dakit norentzat_k*
 but not I.know who.for
~~*[joan den Jone etxera t_d]*~~
 go AUX.C Jone.ABS home.to
Lit. '... but I don't know for whom (Jone went home).'

In short, Basque conforms to the predictions about sprouting. These structures in the language of study can be accounted for by assuming a deletion analysis.

In the light of the data presented throughout these four sections, connectivity effects in Basque, together with facts related to postpositions and sprouting, properly justify the existence of syntactic structure within the sluicing site. Elliptical structures share the same grammatical constraints of non-elliptical structures; all the above phenomena can be explained by arguing that the ellipsis site contains the necessary elements for the respective relations to be held. Ergo, sluicing comprises a full-fledged syntactic structure.

However, to show that there is regular *wh*-movement, locality effects must be checked. The following section deepens on the apparent lack of island sensitivity of sluices, which is a *prima facie* problem for structural approaches. Firstly, the pattern of Basque sluices with respect to islandhood will be described. Secondly, the main approaches that attempt to account for those facts will be outlined, as well as their respective theoretical implications and their compatibility with the facts in Basque.

3.5. Locality

Ross (1967, 1969) was the first author who signalled that locality effects, specifically island constraints, ameliorated under sluicing. He discussed this effect in coordinate structures, complex NPs, sentential subjects, and left branches. Ever since, the amount of data showcasing this fact has increased, but more importantly, some authors have observed that the island violation can be completely overcome (Levin, 1982; Merchant, 2001):

- (53) a. *They want to hire someone who speaks a Balkan language, but I don't remember which (Balkan language) they want to hire someone who speaks.
 b. They want to hire someone who speaks a Balkan language, but I don't remember which (Balkan language).

(Adapted from Merchant, 2001, p. 87, ex. (5))

As for Basque, it exhibits an asymmetrical behaviour towards islands: some sluices containing apparent island violations are acceptable, while extraction out of sluices with other islands is illicit. In fact, judgements on certain island violations may vary from speaker to speaker¹⁷. For instance, some native speakers accept sluices with a

17 As the locality data are more complex than the data presented in the prior sections, I checked my acceptability judgments against those of other four native speakers of Basque. I designed an informal survey that included the sentence pairs displayed in this section. The judgements are combined.

putative relative clause island (54), whereas others do not (hence %). I will return to this later.

A list with several island types (originally proposed for English by Ross (1969), Chung et al. (1995) and Merchant (2001), among others) is provided below, where (a) shows the overt sentences, and their elliptical counterparts are given in the sentences in (b):

(54) *Relative clause island*

- a. **Herrialde urrun bat bisitatu duen neska batek hitz egin du, baina ez dakit zein herrialde urrun bisitatu duen neska batek hitz egin duen.*
 country far one.ABS visit AUX.C
 girl one.ERG speak AUX but not I.know which
 country far.ABS visit AUX.C girl
 one.ERG speak AUX.C

Lit. 'A girl who visited a faraway country spoke, but I don't know which faraway country a girl who visited spoke.'

(cf. **Zein herrialde urrun bisitatu duen neska batek hitz egin du?*)

- b. %*Herrialde urrun bat bisitatu duen neska batek hitz egin du, baina ez dakit zein herrialde.*
 country far one.ABS visit AUX.C
 girl one.ERG speak AUX but not
 I.know which country.ABS

'A girl who visited a faraway country spoke, but I don't know which country.'

(55) *Adjunct island*

- a. **Andu poztuko da Elenak bere lagunetako bati deitzen badio, baina ez dakit bere lagunetako zeini poztuko den Andu Elenak deitzen badio.*
 Andu.ABS be.happy AUX Elena.ERG her friends.of
 one.DAT call AUX.if but not I.know her
 friends.of which.DAT be.happy AUX.C Andu.ABS
 Elena.ERG call AUX.if

Lit. 'Andu will be happy if Elena calls one of her friends, but I don't know which of her friends Andu will be happy if Elena calls.'

(cf. **Bere lagunetako zeini poztuko da Andu Elenak deitzen badio?*)

- b. *Andu poztuko da Elenak bere lagunetako bati deitzen badio, baina ez dakit bere lagunetako zeini.*
 Andu.ABS be.happy AUX Elena.ERG her friends.of
 one.DAT call AUX.if but not I.know her
 friends.of which.DAT

'Andu will be happy if Elena calls one of her friends, but I don't know which of her friends.'

(56) *Complement to noun island*

- a. *Leirek gaixotasun bat duelako berria
 Leire.ERG illness one.ABS have.C news
 kontatu du, baina ez dakit zein gaixotasun
 tell AUX but not I.know which illness.ABS
 kontatu duen Leirek t duelako berria.
 tell AUX.C Leire.ERG have.C news

Lit. 'Leire told the news that she has an illness, but I don't know which illness Leire told the news she has.'

(cf. *Zein gaixotasun kontatu du Leirek duelako berria?)

- b. Leirek gaixotasun bat duelako berria
 Leire.ERG illness one.ABS have.C news
 kontatu du, baina ez dakit zein gaixotasun.
 tell AUX but not I.know which illness.ABS
 'Leire told the news that she has an illness, but I don't know which illness.'

(57) *Sentential subject island*

- a. *Argi dago hainbat lagun etorriko direla
 clear is several friend.ABS come AUX.C
 festara, baina ez dakit zein lagun dagoen
 party.to but not I.know which friend.ABS is.C
 argi etorriko direla festara.
 clear come AUX.C party.to

Lit. 'It's clear that several friends will come to the party, but I don't know which friends it's clear that will come to the party.'

(cf. *Zein lagun dago argi etorriko direla festara?)

- b. Argi dago hainbat lagun etorriko direla
 clear is several friend.ABS come AUX.C
 festara, baina ez dakit zein lagun.
 party.to but not I.know which friend.ABS
 'It's clear that several friends will come to the party, but I don't know which friends.'

(58) *Coordinate structure constraint*

- a. *Kristiñak eguzkia hartu du eta liburu bat
 Kristiña.ERG sun.ABS take AUX and book one.ABS
 irakurri du, baina ez dakit zein liburu
 read AUX but not I.know which book.ABS
 irakurri duen eta eguzkia hartu duen Kristiñak.
 read AUX.C and sun.ABS take AUX.C Kristiña.ERG

Lit. 'Kristiña sunbathed and read a book, but I don't know which book Kristiña read and sunbathed.'

(cf. *Zein liburu irakurri du eta eguzkia hartu du Kristiñak?)

- b. *Kristiñak eguzkia hartu du eta liburua bat irakurri du, baina ez dakit zein liburu.*
 Kristiña.ERG sun.ABS take AUX and book one.ABS
 read AUX but not I.know which book.ABS
 'Kristiña sunbathed and read a book, but I don't know which book.'

(59) Wh-island

- a. **Ibonek pentsatu du zein ariketa egin daitekeen argitu zein tresnarekin, baina Mikelek ez du argitu zein tresnarekin pentsatu duen Ibonek zein ariketa egin daitekeen.*
 Ibon.ERG think AUX which exercise.ABS do
 can.C which tool.with but Mikel.ERG not AUX
 clarify which tool.with think AUX.C Ibon.ERG
 which exercise.ABS do can.C

Lit. 'Ibon planned which exercise can be done with which tool, but Mikel didn't clarify with which tool Ibon planned which exercise can be done.'

(cf. *Zein tresnarekin pentsatu du Ibonek zein ariketa egin daitekeen?)

- b. **Ibonek pentsatu du zein ariketa egin daitekeen argitu zein tresnarekin.*
 Ibon.ERG think AUX which exercise.ABS do
 can.C which tool.with but Mikel.ERG not AUX
 clarify which tool.with

Lit. 'Ibon planned which exercise can be done with which tool, but Mikel didn't clarify with which tool.'

(60) Left-branch island

- a. **Mikelek norbaiten ama ikusi du, baina ez dakit noren ikusi duen Mikelek ama.*
 Mikel.ERG someone.GEN mother.ABS see AUX but not
 I.know whose see AUX.C Mikel.ERG mother.ABS

Lit. 'Mikel saw someone's mother, but I don't know whose Mikel saw mother.'

(cf. *Noren ikusi du Mikelek ama?)

- b. **Mikelek norbaiten ama ikusi du, baina ez dakit noren¹⁸.*
 Mikel.ERG someone.GEN mother.ABS see AUX but not
 I.know whose

Int. 'Mikel saw someone's mother, but I don't know whose.'

18 It is acceptable if nominalised, but in that case, there is no extraction at all. *Noren ama* 'whose mother' becomes *norena* 'whose':

(i) ... *baina ez dakit norena.*
 but not I.know whose.ABS
 '... but not know whose.'

As anticipated above, the Basque data are quite puzzling: sluices with islands related to adjuncts (55), complements to nouns (56), sentential subjects (57), and coordinate structures (58) are fairly acceptable to speakers, which signals that the locality restriction seems overcome under sluicing (assuming that a structure that corresponds to an island is contained in the underlying structure of the ellipsis); on the contrary, embedded question islands (59) and left-branch islands (60) are not accepted; last, there is variability in judgements with respect to relative clause islands (54) (out of four speakers, one did not accept the relative clause sluice).

Island insensitivity in sluicing, especially in English, has been explained by positing different theoretical explanations. On the one hand, defenders of *the non-structural approach* (i.a. Culicover & Jackendoff, 2005; Ginzburg & Sag, 2000; Sag & Nykiel, 2011) interpret island insensitivity as evidence against the notion of structure. Since no violation arises when crossing the putative island, there exists no such locality restriction, and therefore, no syntactic structure at all. They assume that the *wh*-remnant is generated in its surface position, in opposition to the idea of movement.

Quite similarly, proponents of *the in-situ approach* (i.a. Abe, 2015; Kimura, 2010) claim that in sluicing the *wh*-remnant does not move. Instead, it stays *in-situ* in its base-generated position. What differentiates these authors from non-structuralists is the fact that they defend the existence of structure; otherwise, there would not be a position for the *wh*-phrase to stay *in-situ*. Still, as no overt movement takes place, there is no need to explain island constraints, since there is no element undergoing extraction whatsoever.

On the other hand, supporters of *the repair approach* (i.a. Chomsky, 1972; Lasnik, 2001; Merchant, 2001, 2004, 2008; Ross, 1969) state that there exists an internal structure with an island in the ellipsis site which is repaired in sluicing. Depending on the author, the analysis of the fix varies: (i) the island-crossing derivational constraint ameliorates if it is subject to a deletion operation and does not appear superficially (Ross, 1969); (ii) the *-feature (originally marked with the diacritic #) that stems from extracting out of an island is deleted before being uninterpretable at PF (Chomsky, 1972); (iii) PF islands (left-branch extraction, COMP-trace effects, derived position islands (topicalisations and subjects), and the coordinate structure constraint I (the conjunct condition)) are deleted at PF (Merchant, 2001, 2008)¹⁹.

Last, advocates of *the evasion approach* (i.a. Abels, 2011; Barros et al., 2014; Merchant, 2001) postulate that sluicing cannot repair the deviance that arises from extracting elements out of islands. Instead, they argue that independently available non-isomorphic structures without islands underlie the sluice. For instance, Barros et al. (2014) propose three evasion strategies: a short source (a smaller subpart of the preceding clause), a copular/cleft source (a copular clause with an expletive-like pronoun), and

19 Simplifying much, Merchant (2001) divides islands into repair islands (PF islands) and evasion islands (propositional islands).

a predicational source (a copular clause where the remnant is the pivot). When these structures are controlled for, island effects reemerge, signalling that when sluicing is island insensitive, it involves these evasion strategies with no island constraints.

Let's see whether these proposals fit the Basque data. First, connectivity effects, which are strong in Basque, remain unaccounted for under the non-structural approach. That is, if we assume that there is no underlying structure in sluicing, case-matching effects (§ 3.1), binding effects (§ 3.2) and postposition-non-stranding data (§ 3.3) cannot be covered. For instance, if an unpronounced predicate were lacking, we would need to come up with an *ad hoc* case-matching requirement that forces the correlate and the *wh*-remnant to match in case in Basque sluicing. This condition would not be motivated by any independent principle in Basque. Furthermore, relationships between DPs, properly accounted for by the Principles of the Binding Theory, could not abide by those conditions; with no structure, the relevant binders would not be present in the syntax, and the necessary relations could not be held. Finally, sluicing parallels overt syntax by pied-piping postpositions in *wh*-movement. Thus, postpositions need a base-generated position to move from. It is thereby safe to say that, at least for Basque, a non-structuralist view for islandhood leaves a great amount of data unexplained.

Second, if we were to adopt an *in-situ* approach, we would be forced to postulate a *wh-in-situ* strategy for sluicing, which cannot be defended for regular *wh*-movement, and importantly, that would not account for the unacceptability of (59) and (60). Once again, we would be arguing for a syntactic operation which is exclusive for sluicing, contrary to what the Economy Principle (i.a. Chomsky, 1995) dictates.

As for the repair analysis, it matches Basque connectivity effects (§ 3.1 and § 3.2) and postposition-non-stranding facts (§ 3.3) displayed so far, but as shown above, not all islands can be repaired (see (59) and (60) above). So, were we to posit this latter approach, we should explain why some islands can be repaired and others cannot. In other words, our theory should provide a categorisation of islands considering their behaviour with respect to PF repair.

Last, as far as the evasion strategies are concerned, I check short sources and copular sources²⁰. The availability of these sources hinges upon the case of the *wh*-remnant: a short source in the ellipsis site is compatible with any *wh*-phrase regardless of its case; as the predicate is identical to that in the antecedent, the case assigned to the *wh*-phrase will be the same. Thus, either case (ergative, dative, or absolutive) will always be compatible with the short source and consistent with the correlate's case. Nonetheless, regarding copular sources, since the argument of the copula is necessarily absolutive in Basque, only absolutive *wh*-remnants will allow a source of such kind. Take, for instance, a sentence with a sentential subject island (57) which has an absolutive *wh*-phrase as its remnant. When positing a non-elliptical continuation for the sluice, both the copular source and the short source work:

20 I ignore predicational sources as they appear with left-branch extractions (not permitted in Basque).

(61) *Sentential subject*

Argi dago hainbat lagun etorriko direla festara,
 clear is several friend.ABS come AUX.C party.to
 baina ez dakit zein lagun [diren / etorriko diren].
 but not I.know which friend.ABS are.C come AUX.C
 'It's clear that several friends will come to the party, but I don't know which friends they are/will come.'

As anticipated above, the predictions are different for the ergative (62) and the dative (63). We expect them to exclude the possibility of the copular source:

(62) *Sentential subject*

Argi dago zenbait lagunek ardoa ekarriko dutela,
 clear is some friends.ERG wine.ABS bring AUX.C
 baina ez dakit zein lagunek [*diren / ekarriko duten].
 but not I.know which friends.ERG are.C bring AUX.C
 'It's clear that some friends will bring wine, but I don't know which friends they are/will bring it.'

(63) *Adjuncts*

Andu poztuko da Elenak bere lagunetako
 Andu.ABS be.happy AUX Elena.ERG her friends.of
 bati deitzen badio, baina ez dakit bere
 one.DAT call AUX.if but not I.know her
 lagunetako zeini [*den / deituko dion].
 friends.of which.DAT is.C call AUX.C
 'Andu will be happy if Elena calls one of her friends, but I don't know which of her friends it is/she will call.'

The prediction is borne out: the copular continuation is not available for the ergative (62) or the dative (63). This is associated with the fact that the copula appears invariably with the absolutive case in Basque. The only evasion strategy that can be integrated with all the morphological cases in Basque is hence a short source.

Due to space limitations, I cannot expand much on how the short sources work with the binding facts (§ 3.2). What is crucial for the structure of a short continuation is that it does not contain the island-violating structure. Thus, there is no reason to believe that the relevant elements (i.e. binders) should be restrained from being present in the short source. I therefore assume that they are included in the short continuation and operative in the syntax, leading to successful relationships between DPs. Postposition-non-stranding data (§ 3.3) and sprouting (§ 3.4) are not problematic either, as they only require syntactic structure with a silent predicate, both provided by the short source²¹.

21 See Abels (2019) for more on the evasion approach.

Taking everything discussed into consideration, a short source is a promising alternative to the (apparent) problem of islands. The most important point is that it goes in line with the main contribution of this paper: syntactic structure underlies sluicing in Basque. Short sources are fully compatible with the data presented throughout: case matching, binding, postpositions, and sprouting. By way of illustration, the deletion analysis for a short source is represented below:

(64) *Sentential subject*

<i>Argi</i>	<i>dago</i>	<i>zenbait</i>	<i>lagunek</i>	<i>ardoa</i>		<i>ekarriko</i>	<i>dutela,</i>	
clear	is	some	friends.ERG	wine.ABS		bring	AUX.C	
<i>baina</i>	<i>ez</i>	<i>dakit</i>	<i>[zein lagunek]_k</i>	<i>[ekarriko</i>	<i>————</i>	<i>duten</i>	<i>————</i>	<i>t_d].</i>
but	not	I.know	which friends.ERG	bring		AUX.C		

'It's clear that some friends will bring wine, but I don't know which friends (will bring it).'

In conclusion, short sources are a propitious line of research regarding islands and sluicing. As exposed in the previous sections, considering that the connectivity effects, postposition-non-stranding facts, and sprouting are robust in Basque, an appropriate approach needs to account for them and explain islands under sluicing as well. That is exactly what short sources appear to be doing. I hereby argue that short sources are a feasible analysis for locality effects in Basque sluicing.

4. CONCLUSIONS

In this paper, I have explored the elliptical structure of sluicing in Basque, showing that it is the result of a *wh*-movement operation followed by deletion at PF (Merchant, 2001; Ross, 1969). Specifically, a full-fledged syntactic structure underlies the ellipsis site of this phenomenon. The *wh*-phrase remnant displaces out of such structure through regular *wh*-movement, and subsequently, deletion targets the internal structure. The analysis I posit hence involves two operations: movement and deletion.

Deletion implies that there is a syntactic structure which gets elided. To investigate which is the structure in question, I have employed tests proposed across languages. The results indicate that in sluicing in Basque, the correlate and the *wh*-remnant must match in case regardless of the type of clause (main vs. embedded), the morphological complexity of the *wh*-phrase (simple vs. complex), and the case (ergative vs. dative vs. absolutive); in addition, it has been shown that the binding requirements must be fulfilled by reflexive and reciprocal anaphors, R-expressions, and bound pronouns; neither attached nor free postpositions can be stranded in the ellipsis site; and last, sprouted structures are licit. All these empirical facts can be accounted for by assuming a move-and-delete analysis for Basque sluicing, where the elided constituent hosts the relevant elements for these syntactic relationships to be held.

As for movement, in the last part we have engaged in a discussion on locality constraints, concretely, islands, which restrict extraction of elements out thereof.

Accordingly, if we were to postulate movement in sluicing in Basque, we would expect displacement to be illicit in these configurations. Surprisingly, as attested in other languages (Merchant, 2001; Ross, 1969), (at least some) island effects do not arise in Basque. There are different theoretical approaches to cover these facts, although they face several difficulties regarding Basque: the non-structural proposal is inconsistent with connectivity effects; the *in-situ* approach would force us to adopt an exceptional *wh*-operation exclusively for sluicing; the repair approach cannot explain all the data; and the copular evasion strategy is incompatible with case matching. I propose that short sources are the alternative, as they properly explain the facts related to both structure and locality. I suspect that more work on this latter evasion strategy will shed some light on our current understanding of islandhood and ellipsis.

In short, I have surveyed sluicing in Basque, a previously understudied phenomenon, and successfully shown that it comprises internal syntax. In other words, the facts supplied in this paper are robust and consistent to argue for a silent structure in Basque sluicing.

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