Islands in Sluicing in Polish

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1. The puzzle

Since Ross (1967) it has been observed that certain forms of ellipsis appear to alleviate island effects when compared to their fully pronounced version.

1. They want to hire someone who speaks a Balkan dialect, but I do not know which

If we were to express the meaning of the elided string the most syntactically and semantically symmetrical expression would be ungrammatical (extraction out of an adjunct):

*2. [Which dialect]₁ they want to hire someone who speaks t₁

There are two extreme positions that can be held in order to account for the data in (1). First, the antecedent does not constrain the continuation, as compared to, for example, a de-stressed version (for examples of such contrasts see Rooth 1992). Second, the continuation is maximally constrained by the antecedent (syntactic and semantic identity) but the fact that the string is unpronounced allows certain principles of grammar to be alleviated. Things become even more complicated when we take into account that not every form of ellipsis can alleviate islands. Consider VP ellipsis. In (3a) below we see that extraction out of an adjunct is not possible, in (3b) we see that we cannot extract out of an adjunct even if it has been VP elided (signaled by do-support).

3. a. What did you leave before they started playing t
    b. We left before they started playing party games.
    - *What did you leave before they did?

I will argue that data from Polish sluicing suggests that there is no need to take either radical view as far as ellipsis and island alleviation. It will be shown that the difference between VP ellipsis and Sluicing is superficial and stems from differences in the set of available elided continuations as a function of the antecedent. When we control for the set of possible continuations, sluicing behaves no differently from VP ellipsis as far as Island alleviation. The conclusion will be that ellipsis cannot alleviate violations in syntax. This will support the idea that ellipsis is just a radical form of de-stressing (Rooth 1992, Szczegielniak 2004).

2. Preposition Stranding in Polish Sluicing

Polish has been used as an example in arguing for an approach where syntactic identity is a requirement in licensing the antecedent and the sluice (Merchant 2001). Unlike English, Polish does
not allow preposition stranding. If sluicing requires that the difference between the antecedent and sluice is only that the latter requires wh-movement then sluicing should obey the same restrictions as regular wh-movement, in the case of Polish, this means sluicing should not be able to strand a preposition. This is precisely what Merchant (2001) reports:

*4.  Kim Anna  t ańczyła z t₁
    who  Anna danced with
    ‘Who did Anna dance with?’

5.  Anna  t ańczyła z kimś ale nie wiem *(z) kim
    Ann danced with someone but not know (with) whom
    ‘Ann danced with someone but I do not know who’

In (4) we see that wh-movement cannot strand a preposition, in (5) we observe the same in the case of sluicing. This correlation between wh-movement and sluicing, attested in many languages, has led to proposals that sluicing has to be licensed via simple wh-movement and in all other respects the sluice and the antecedent are syntactically identical. Obviously, if that is the case then the logical conclusion is that examples like (1) are instances where sluicing somehow has to ‘fix’ island constraints. This has led to theories that some islands can be alleviated via ellipsis (for example, extraction out of an adjunct) whereas others cannot (for example, preposition stranding). This has led to a classification of Islands (See Merchant 2001 for a distinction between PF and LF Islands), or theories where deletion of traces high enough in the tree leads to island alleviation (see: Fox and Lasnik 2003). Unfortunately, this interesting theoretical works does not take into account more fine grained details involving sluicing and island alleviation. Consider the following examples in Polish:

6.  Anna  t ańczyła z jednym mężczyzną, ale nie wiem *(z) którym
    Ann danced with one man but not know (with) whom
    ‘Ann danced with one man, but I do not know which’

7.  a.  Którym₁ Anna tańczyła z t₁ mężczyzną
    Which Ann danced with man
    ‘Which man Ann danced with’

         [Z którym]₁ Anna tańczyła t₁ mężczyzną
    With which Ann danced man
    ‘With which man Ann danced’

In (6) we see that, contrary to previous claims (Merchant 2001), sluicing in Polish does allow preposition stranding. If we follow the assumption that the relationship between the antecedent and sluice is that of strict syntactic identity then (7) is the only possible continuation. However, preposition stranding is impossible there (compare 7a with 7b). One could claim that this is a new discovery showing that preposition stranding can be alleviated in certain contexts. This however would be impossible in the system where there are PF and LF Islands since preposition stranding would have to belong to both and neither at the same time. The difference between (5) and (6) is that the wh-phrase in (6) is d-linked. It will be argued that this difference is a crucial one. There are constructions in Polish where the wh-element can raise out of a complex DP contained in a PP and strand the preposition, provided that the whole DP does not raise. This is impossible in simple wh-movement (as

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2 For additional observations on PP stranding phenomena see Hartman (2005), Stjepanovic (2006), Rodrigues, Vicente, Nevins (2007), and Almeida & Yoshida (2007).

3 Nor could this data be handled within the Fox and Lasnik (2003) system, or recent proposals in recent proposals in Merchant (2006), or within proposals where syntactic structure is not present in elided part (Lobeck 1995).
shown in 7a), however, this type of wh-raising out of a cleft-like construction is possible. Consider the example below:  

8. Którym to [z t2 mężczyzną]1 Anna tańczyła t1  
   which acc it with man Ann danced  
   ‘It was with which man that Ann danced’

This cleft in (8) is not possible with non d-linked phrases as shown in (9) below:

9. Kim to [z t2]1 Anna tańczyła t1  
   who it with Ann danced  
   ‘It was with who that Ann danced’

In (8) the DP ‘with which man’ is clefted and then the wh-phrase is raised above the expletive marker ‘to’ presumably for additional emphasis (the stress pattern is different after the wh-rasies above the expletive). The result is that in (8) part of the DP has raised outside the PP. This seems only possible if we have a complex DP, thus in non d-linked wh-phrases, as in (9), raising of the wh-word above the expletive is impossible. Setting aside the nature of the cleft in (8), it is tempting to assume that the dichotomy in the availability of preposition stranding in sluicing is directly connected to the dichotomy of preposition stranding in cleft-like constructions. However, such a connection would mean that the relationship between the antecedent and sluice could not be that of strict syntactic identity. This is precisely what I suggest. The set of continuations determined by the antecedent in sluicing is much broader than just a syntactically identical string plus wh-movement. It will be suggested that anything can be a continuation as long as it can be recovered on the basis of the antecedent. Let me propose the following:

10. a. Deletion of PF material cannot alleviate syntactic violations, regardless of how much material is deleted.  
   b. Ellipsis is a radical form of de-stressing. It is constrained by the recoverability condition (Johnson 2001) given in (c) below.  
   c. If α is a sluice and β its antecedent then α must be given by β and β must be given by α

One of the strongest arguments against clefts being continuations of sluices is that they would generate case mismatches (Merchant 2001). Clefts usually force Nominative case. However, the construction in (8) is different, case is preserved like in wh-movement, and the wh-word is in the Accusative (which in this Polish example carries a case ending distinct from the Nominative). Let me interpret (10c) as saying that if there is nothing in the pronounced string to exclude β from being the sluice then it can be considered to be the unpronounced continuation. Regular clefts will be excluded outright, a case mismatch can signal a cleft, but it can also signal that the wh-word is an argument of a verb that does not appear in the antecedent. As a consequence recoverability is not possible. Let me propose the following:

11. Sluicing in Polish can be generated via:  
   a. simple wh-movement (strict syntactic identity),  
   b. in cases when simple wh-movement is impossible, a cleft like construction as in (8), or some other construction that does not violate recoverability in (10c).

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4 For some speakers of Polish (8) would receive a small question mark. Emphatic intonation on the expletive seems to improve judgments. However speakers agree that, when compared to (8), (7a) and (9) are completely unacceptable.  

5 The construction in (8) is in itself interesting. However, for the purposes of this argument, and for reasons of space, it is sufficient to say that it is acceptable.  

6 There is definitely no connection to simple wh-movement since there is no dichotomy there, preposition stranding is impossible regardless whether the wh-phase is part of a d-linked DP or not.
The consequences of (11) are such that Island alleviation can now be accounted for by assuming that Polish sluicing has the strategy of using option (11b) when simple wh-movement is impossible. That is why (6) has the option of not pronouncing the preposition because it using the strategy in (11b), by contrast, in example (5), both strategies in (11) generate an ungrammatical expression and omitting the preposition is not an option. If this reasoning is on the right track, then Island alleviation in Sluicing can be argued to be an illusion. In the next section, I will explore the consequences of the proposal in (10) and (11) and argue that this is precisely the case. It will be shown that Polish sluicing does not alleviate Islands when we control for cleft-like constructions as in (8).

3. Multiple wh-sluicing

Polish allows multiple wh-movement:

12. [Który list]_{2} [do którego przyjaciela]_{1} Jan napisał t_{1} t_{2}  
    which letter to which friend Jan wrote  
    ‘Which letter did Jan write to which friend’

I will not discuss the properties of multiple wh-movement here, except one, namely that clefts like (8) cannot participate in multiple wh-constructions. Consider the following example:

13. Który_{1} to który_{2} to t_{1} mężczyzna kupił t_{2} zabawke  
    which it which it man purchase toy  
    ‘It was which toy that which man purchased’

If multiple wh-constructions are not possible with clefts, we would predict that option (11b) is not available in sluices using multiple wh-words. This in turn predicts that multiple wh-sluicing should behave differently from single wh-sluicing. This turns out to be correct, consider the following example:

14. a. Jan napisał jakiś list do jakiegoś ucznia ale nie wiem który  
    Jan wrote some letter to some student but not know which  
    *(do) którego  
    *(to) which  
    ‘*Jan wrote some letter to some student but I do know which to which (student)’

    b. Jan napisał list do jakiegoś ucznia ale nie wiem *(do) którego  
    Jan wrote letter to some student but not know *(to) which  
    ‘Jan wrote some letter to some student but I do know to which (one)’

In the previous section it was shown that preposition stranding is possible in sluicing when the wh-word is d-linked (compare example 5 with 6). The contrast between (14a) and (14b) shows that in multiple wh-sluicing preposition stranding is not possible (14a), whereas when there is just one wh-word then the proposition can be omitted (14b). This is predicted if we assume the proposals in (10) and (11) allowing a sluice in Polish to have a continuation in the form of a cleft-like construction as in (8). Then (14b) is impossible since multiple wh-constructions cannot be generated with a cleft-like construction as shown in (13). Allowing the sluice to have a cleft-like continuation allows us to account for the fact that in a non-preposition stranding language like Polish, prepositions can appear to be stranded in sluicing constructions provided the wh-phrase is d-linked and a cleft like continuation is possible (meaning there is no multiple wh-movement).
4. Sluicing in Polish and other Islands

Let me return to the observation in (1). The difference between the ability to alleviate adjunct islands and the ability to alleviate preposition stranding has led to a classification of island violations where there are PF and LF islands (Merchant 2001). Let me concentrate on the Polish equivalent of (1).

15. a. Oni chcą wynająć kogoś kto mówi dialektem bałkańskim, ale nie wiem którym know which ‘They want to hire someone who speaks in Balkan dialect, but I do not know which’

*b. Oni chcą wynająć kogoś kto mówi dialektem bałkańskim, ale nie wiem którym dialektem bałkańskim oni chcą wynająć kogoś kto mówi know which dialect Balkan they want hire someone who speaks *They want to hire someone who speaks in Balkan dialect, but I do not know which Balkan dialect they want to hire someone who speaks’

Example (15a) is acceptable, when compared to (15b) which would be the only possible continuation if strict syntactic identity were to be maintained. The contrast in (15) shows that like in English sluicing appears to alleviate adjunct islands. However, as it was pointed out this reasoning is based on the assumption that the continuation is syntactically identical to the antecedent (minus the wh-movement part, which is present in the signal). One of the basic arguments for such an approach, the correlation between preposition stranding properties of sluicing and wh-movement has been called into question in the previous sections. If the proposals in (10) and (11) are on the right track, sluicing can have a continuation that is syntactically identical, but it does not have to, provided the structure can be recovered. If that is the case, comparing (15a) and (15b) does not make any sense. In previous sections, I suggested that apparent preposition stranding can be accounted for by assuming that the sluice has a cleft-like continuation. I showed that the properties of this construction strongly correlate with the properties of sluices involving apparent preposition stranding violations (both can only occur with d-linked wh-constructions). I have also shown that when we control for the availability of cleft constructions and force a reading where simple wh-movement is the only possible continuation of the sluice (multiple wh-constructions where clefts are impossible) then we see that prepositions can never be omitted in a sluice. This supports the proposal in (10) and (11) suggesting that simple wh-movement is only one possible way of deriving a sluice. This leads us to (15a). The line of reasoning is fairly simple, if constructions other than simple wh-movement are valid continuations in sluicing constructions where there is apparent alleviation of a preposition stranding violation (as in example 6), then there is no reason to assume that the same option of having a different than just simple wh-movement construction as an ending is not available in (15a). In other words (15b) does not have to be the pronounced part of (15a), just like (7a) does not have to be the pronounced continuation of (6) when the proposition is omitted. The proposed continuation of (15a) would then not be what is in (15b) but what I suggest in (16) below (the elided continuation is in brackets):7

16. Oni chcą wynająć kogoś kto mówi dialektem bałkańskim, ale nie wiem którym [to dialektem co on nim mowi oni chcą wynająć ] know which it dialect he it speak they want someone hire ‘They want to hire someone who speaks in Balkan dialect, but I do not know which’

For reasons of space I have concentrated on one type of island violation, however, the claim is that all the report island alleviation phenomena can be accounted for using a similar mechanism.

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7 For reasons of space I have concentrated on one type of island violation, however, the claim is that all the report island alleviation phenomena can be accounted for using a similar mechanism.
Example (16) uses the same cleft-strategy as in (8) moreover it uses a relative clause plus resumptive pronoun strategy. In Polish resumption with certain types of relatives is common, if not obligatory (Szczegoliński 2006). The continuation in (16) will be argued to conform to the recoverability condition.

In the previous section I have argued that multiple wh-constructions are a good way of eliminating a continuation containing a cleft-like construction. If (15a) has the continuation involving a cleft like construction as shown in (16), then adding another wh should make it ungrammatical. On the other hand, if the continuation of (15a) is (15b), which involves simple wh-movement, then adding another wh should not make any difference since Polish allows multiple wh-movement. The data suggests that (15a) has a cleft like continuation as suggested in (16). Consider the following example:

*17. Oni chcą wynająć kogoś tłumacza co mówi jakimś dialektem
    They want hire some translator who speaks some dialect
balkańskim, ale nie wiem którego
    Balkan but not know which
    ‘They want to hire some translator who speaks in Balkan dialect, but I do not know who which’

Example (17) should be as acceptable as (15a) if sluicing as operation alleviates syntactic violations, but it is not. Fox and Lasnik (2003) propose a mechanism where apparent island alleviations in sluicing (as in 1) are a result of a mechanism where the non-pronunciation of offending traces alleviates the violation. Setting aside all sorts of conceptual problems with such an approach, let us assume for a moment that this approach is on the right track. Example (15a) is grammatical because the offending traces (present in the signal in 15b) are not in the output. We can then argue that (17) is unacceptable because the offending trace of the higher wh- has not been deleted. In essence, we would have to argue that sluices involving multiple wh-constructions have more structure present in the output than sluices with a single wh-word. The whole approach is based on the assumption that multiple wh-movement in Polish targets different heads (see Rudin 1988). The problem with this approach is that it would still have to account for the preposition stranding phenomena. Unfortunately, within the Fox and Lasnik (2003) framework it would be impossible to account for the fact that preposition stranding is alleviated only in d-linked wh-phrases, and only if there is one wh-word in the sluice. Identical behavior of sluicing in Polish as far as preposition stranding violations and adjunct extraction islands suggests that one underlying mechanism is responsible for cases when these apparent violations are alleviated. I suggest that this underlying mechanism is the availability of a cleft like construction like in (8). When that mechanism is unavailable, as is the case with multiple wh-movement, sluicing cannot alleviate any kind of violation.

5. VP ellipsis and sluicing

One interesting aspect of the proposal in Fox and Lasnik (2003) is the account why VP ellipsis cannot alleviate any islands (compare example 1 with example 3). In their account VP ellipsis does not delete enough material and offending traces are present in the signal. In the previous section, I have argued against Fox and Lasnik (2003), and I will suggest that there is a simpler explanation for the contrast between (1) and (3), namely the antecedent in VP ellipsis does not license clefts. Consider the examples below. In (18a,b) we see that VP ellipsis does not alleviate adjunct islands as opposed to sluicing (compare 18a with 15a).

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8 For multiple wh-sluicing in Slavic see also Grebenyova (2007).
18. *a. Oni bedą chcieli wynajęć kogoś kto mówi dialektem bałkańskim, ale nie
    They will want to hire someone who speaks Balkan dialect, but not
    wiem [którym dialektem], oni będą
    know which dialect they will
    ‘*They will want to hire someone who speaks in Balkan dialect, but I do not know which
    they will’

*b. Oni będą chcieli wynajęć kogoś kto mówi dialektem bałkańskim, ale nie
    They will want to hire someone who speaks Balkan dialect, but not
    wiem [którym dialektem], oni będą to chcieli wynajęć kogoś kto mówi
    know which dialect they will it want hire someone who speak
    ‘*They will want to hire someone who speaks in Balkan dialect, but I do not know which
    they will it be that want to hire someone who speaks’

In this approach, the amount of unpronounced material does not play a role, what does is the type
of continuation that is allowed by the antecedent and the recoverability condition in (10).

6. Fine tuning the relationship between the antecedent and the sluice

Let me return briefly to the proposals in (10) and (11). I argue that the sluice can be anything
provided that it can be recovered from the antecedent, which can be broadly understood as all the
information in the signal, or narrowly as just that part of the pronounced utterance that corresponds
to the elided gap (my preference being to take the broad view). As mentioned before, one argument
against clefts was that case mismatches are impossible in sluicing (the antecedent and the wh-word
have to carry the same case). However, there seems to be a contrast between case mismatches
involving passive/active mismatches and NP+PP/NP NP double object constructions. For those
speakers of English who do get a contrast the double object mismatch is always more acceptable one
than the passive/active one. Consider the examples below:

19. ?a. I sent someone a letter, but I do not recall to who
    *b. Someone kissed Mary, but I do not know by who

Speakers who judge that there is a difference always prefer (19a) over (19b). This also holds for
Polish, Russian and German where speakers when asked to compare to the passive find case
mismatches between NP+PP vs. NP NP double object constructions to be better. Consider the
following examples (ellipsis is indicated by strikethrough):

20. ?a. Jan wysłał komuś list, ale nie wiem do kogo wysłał list
    Jan sent someone DAT letter but not know to whom
    ‘John sent someone a letter, but I do not know to whom’

*b. Jan wysłał list do kogoś, ale nie wiem komu wysłał list
    John sent letter to someone GEN, but not know who DAT sent letter
    ‘John sent a letter to someone, but I do not know who’

*c. Jan zgubił jakąś zabawkę ale nie wiem jaka zabawka zosta
    Jan lost some toy ACC but not know which NOM toy was
    ‘Jan lost some toy but I do not know which’

We see that In Polish double object case mismatches (20a,b) are not as bad as a passive active
mismatch (20c). The same contrast holds for speakers of Russian and German, where (21) and (22) are
not as bad as the passive/active case mismatch.
21. Ja prigotovil komu-to obed, no ne znaju dl’a kovo (Russian)
   I prepared someone DAT dinner but not know for who GEN
   ‘I prepared someone dinner but I do not know for whom’

22. Hans hat jemandem einen Brief geschrieben, aber ich weiss nicht an wen. (German)
   Hans has someone DAT a letter written but I know not to who ACC
   ‘Hans has written a letter to someone but I do not know who’

These findings are at this stage very subtle and unstable, but assuming that they do show some indication to be correct they can used in determining the limits of the relationship between the antecedent and the sluice. We see clearly that information involving a passive/active transformation is lost in the sluice, whereas the information involving the NP/PP vs. NP NP alternation is not. One possibility that I would like to explore is that the passive/active information is a transformation and is located in TP. In the antecedent the TP is set either to passive or active, and information about the other option is lost in the elided part. In the sluice TP is missing, hence there is no way to recover the source of the case mismatch; it could be that the source is another verb not found in the antecedent. In the case of NP NP vs. NP PP alternations the situation is different. We can argue that the option for both types of constructions is part of the lexical information of the verb (see also Pesetsky 1995). In that sense all the information required to recover the source of the case mismatch is on the antecedent verb. One piece of evidence that passive/active is a transformation whereas the variation in double objects is not comes from Idioms. Many idioms can be passivized, not many can undergo a transformation from NP NP to NP PP (Harley 2002).9

23. a. John let the cat out of the bag.
   b. The cat was let out of the bag

24. a. His advisor really gave John a kick in the pants.
   *b. His advisor really gave a kick in the pants to John.

If this reasoning is on the right track, then certain types of information inherently stored on lexical items can be preserved in ellipsis because it is contained in the antecedent, whereas information about transformations stored on functional heads that are not present because of ellipsis is lost. Furthermore, it shows different forms of ellipsis might be able to shed light on the degree and nature of information stored on lexical items.

7. Conclusion

In this paper I have argued that:

25. a. Sluicing does not alleviate Islands, just like VP ellipsis
   b. Ellipsis is not licensed by syntactic identity (no PF, LF Islands, or trace deletion)
   c. There is syntactic structure in the ellipsis site.
   d. Ellipsis is licensed by a recoverability condition, if there is enough information in the non-elided signal ellipsis is acceptable, including case-mismatches, PP stranding violations and other island violations.

Let me say a final word on other languages. It remains to be explored whether Island alleviation phenomena can be accounted for in similar fashion in languages like English, etc. However, it would be very unlikely if Polish were somehow special in that it utilizes a different strategy in alleviating

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9 I would like to thank Hagit Borer for pointing out that these double object idioms are not easily passivized. I tried to find an example where this would be possible.
islands in sluicing. In fact it is entirely possible that languages differ as to what constructions they allow as continuations of sluicing, and, in that sense, sluicing is not a unitary phenomenon.\textsuperscript{10}

\textbf{References}


\textsuperscript{10} See also Mahajan (2005).