Exfoliation and control
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The issue. Pesetsky (2019) presents a wide range of evidence in favour of the view that all embedded clauses begin life as full finite CPs. On his view, infinitives undergo exfoliation, whereby their C and T layers are stripped off in the presence of subject extraction. In this talk, we explore the implications of Pesetsky's framework for the phenomenon of control. Our claim is that his approach receives strong support from patterns of case independence and case transmission in languages like Icelandic and Russian as well as from the distribution of inflected infinitives in Galician. Even in languages like French, German and English, we present evidence that there are two kinds of control of the kind Pesetsky describes.

Background. Pesetsky sketches two approaches to obligatory control. In the first kind, a finite CP is dominated by an f/F complex, the controllee raises to Spec,fP and is spelled out null in agreement with a null f/F functional head. This has much in common with Landau's (2015) logophoric control. The second possibility is that control results from movement of the controllee into the higher clause, along the lines proposed by Hornstein (1999). In both cases, the subject has been extracted and the result is exfoliation. Pesetsky implies that the fP route results in either obligatory control (OC) or non-obligatory control (NOC) while the direct route results only in OC. Previous work on control has also argued that there are two types of obligatory control (see Landau 2000, 2015, van Urk 2010 Sheehan 2014, 2018), but what Pesetsky proposes is subtly different and better able to capture some hitherto recalcitrant phenomena.

Case independence/case transmission. Icelandic, like Russian, Polish and Ancient Greek allows both case transmission and case independence in instances of control (Thráinsson 1979, Sigurðsson 2008, 2012). This means that in instances of object control, secondary predicates on the controlled subject can be nominative (case independence) or accusative (case transmission from the controller):

(1) Ég   bað   hann$_i$ [að fara einn$_i$/   einan$_i$ þangað].
    I.NOM   asked him.ACC   to go   alone.M.SG.NOM/ alone.M.SG.ACC   there
    'I asked him to go there alone.'   (Thráinsson 1979:301)

The case on secondary predicates is not always optional, however. For those Icelandic speakers who allow partial control, it is only possible in instances of case independence:

(2) Hann bað   Ólaf$_i$ [að   hittast   einir$_{i+}$/   *eina$_{i+}$]
    he   asked Olaf.ACC   to   meet.ST alone.NOM.M.PL/ ACC.M.PL
    'He asked Olaf to meet alone.PL.'   (Sheehan 2018: 149)

Note that in (2), the secondary predicate indicates that the subject of the embedded clause is both semantically and syntactically plural as well as being nominative. We can thus analyse (2) as an instance of an embedded fP containing a null controlled pronoun. The exfoliation approach captures the fact that nominative case is available for this pronoun even though the clause has become non-finite derivationally and so cannot host a referential subject. As we might expect, a partial control reading is possible here because PRO is effectively a pronoun. Instances of case transmission, like that shown as an option in (1), we take to involve movement of the controllee into the higher clause. In such cases, the subject of the embedded clause is able to acquire a new (accusative) case and the secondary predicate is able to copy it as the phase boundary between them has been exfoliated. In such cases partial control readings are not possible as the controllee and controller are in a movement relation. Exfoliation is able to explain a challenging property of case transmission: namely the fact that it affects only secondary predicates. Consider (3), where the main predicate must be nominative (and as Bobaljik & Landau 2009 show, this cannot be a default case):

(3) Ég   bað   Maríu   að vera tekin/   *tekna   af lögreglunni.
    I.NOM   asked Maria.ACC to be taken.F.SG.NOM/*ACC   by the.police
    'I asked Maria to be taken by the police.'
                        (Bobaljik & Landau 2009: 119, citing Thráinsson 1979:362–363)

This is entirely as expected in Pesetsky's terms, if the case of the main predicate is determined under case assignment to the embedded subject before exfoliation takes place whereas the case of secondary predicates is determined only when the structure is transferred to PF. In this case exfoliation has the effect of delaying transfer and thus delaying case concord with the secondary predicate. This is not

possible with nominative case which is assigned under subject verb agreement and preserved. We show that similar patterns obtain in Russian (abstracting away from morphological differences).

Galician inflected infinitives. Inflected infinitives in Galician can appear in a range of contexts but their subject can only be interpreted as referential inside strong islands (e.g. complements of nouns, adjunct clauses, subject clauses) (see Sheehan, Schäfer & Parafita Couto 2019). In other words, inflected infinitives surface as the complements of verbs only in instances of partial/exhaustive control, as shown by the contrast in (4):

(4) Lamento   *ter-en/ter-mos   perdido   os documentos.
     regret.1SG   have.INF-3PL/2PL   lost   the documents
     'I regret (us) having lost the documents.'

This pattern can also be explained by Pesetsky's approach. Inflected infinitives are non-finite in the sense that they cannot be main clauses but they are capable of hosting referential subjects, suggesting that they are nonetheless full CPs in Pesetsky's terms. When they are selected by a control verb selecting fP, however, their subject loses its referential power and they become non-finite clauses despite the fact that they preserve inflection (and the ability to assign nominative case).

Cross-linguistic extension. Finally, we show that even in languages without case or verbal agreement inflection in non-finite clauses, there is good evidence that there are two distinct kinds of control, along the lines predicted by Pesetsky. As proposed in Sheehan 2014, 2018 partial control is not a uniform phenomenon. Some languages apparently lack partial control (Greek, Romanian), others exhibit fake partial control (French, Spanish), where partial control is only apparent due to a silent comitative in the embedded clause (see Pitteroff & Sheehan 2018 for discussion) and languages like Icelandic, Russian and Galician but also German and English show both true partial control and fake partial control. We use German to illustrate this point and its implications for exfoliation. German permits (fake) partial control under exhaustive control predicates as long as the embedded predicate is comitative (5). It also has (true) partial control under matrix attitude predicates in whch case the embedded predicate need not be comitative. The features of reciprocal markers show that the embedded subject is singular in (5) and plural in (6) (from Pitteroff & Sheehan 2018: 11):

(5) Ich   hoffe, du   hast jetzt   aufgehört, **dich**/*euch   zu verabreden.
     I   hope   you.2SG have now   stopped   SE.2SG/.2PL   to make.a.date
     'I hope you have stopped making dates (with her).'

(6) Er hat dir   empfohlen,   **euch**/*dich   wenigstens zu begrüßen.
     he has you.2SG   recommended   SE.2PL/.2SG   at.least   to greet
     'He gave you the recommendation to at least greet (your colleague).'

Like them, we take this as evidence that German also has two distinct kinds of control, one involving an intermediate pronoun (fP) which allows partial control and one derived via movement which requires identity between controller and controllee. Within Pesetsky's system, we can easily accommodate these patterns with his three derivations for control: (i) movement of the subject to the matrix clause with exfoliation of CP (with non-attitude predicates) always resulting in exhaustive control. (ii) Movement of the subject to the matrix clause via FP with exfoliation of both fP and CP layers resulting in exhaustive control. (iii) Movement of the subject to Spec,fP with exfoliation of CP-layers and an indirect relationship between controller and subject permitting partial comtrol. Languages such as German have all three options available. Languages such as French on the other hand, only exhibit options (i) and (ii). This allows us to accommodate Landau's (2015) observation that attitude predicates select for larger (irrealis) complements, while non-attitude predicates generally select for smaller constituents. Note, though, that this approach retains a partly lexicalist view of selection with some verbs selecting realis CP and others irrealis fP, and this seems to run counter to his leading idea that all clauses are born equal.

Selected References. Landau, I. 2015. *A Two-Tiered Theory of Control.* Cambridge, MA: MIT Press. * Pesetsky, D. 2019. *Exfoliation: towards a derviational theory of clause size.* MIT manuscript, online: * Sheehan, M. 2018. On the difference between exhaustive and partial control. In Federica Cognola & Jan Casalicchio (eds.), *Null subjects in generative grammar : a synchronic and diachronic perspective*, 141–170. Oxford: Oxford University Press. * Sheehan, M. & M. Pitteroff. 2018. The case for Fake Partial Control in French and German. *Proceedings of NELS 48,* 245–258.