Clausal ellipsis has an isomorphic source: Evidence from Hungarian adjectival sluicing Eszter Ronai & Laura Stigliano (The University of Chicago)

Hungarian adjectival sluices show agreement characteristics of predicative adjectives (*magasak*), even though the correlate of the adjective (*magas*) is in attributive position (1):

Mari ismer néhány magas lány-t, de nem tudom milyen magas-*(ak).
 Mary knows some tall girl-ACC, but not know.I how tall-*(PL)
 'Mary knows some tall girls, but I don't know how tall.'

This has been taken as evidence for the existence of non-isomorphic (i.e. copular/cleft) sources for the ellipsis site (e.g. Barros, 2016). We show, however, that due to case-matching effects, this analysis would necessitate positing copular sources for only a subset of Hungarian sluices –a conceptually unappealing state of affairs. Instead we provide a more parsimonious analysis, which captures the data without needing to posit exceptional sources. We argue for the existence of **two different configurations**: 1) one involving isomorphic wh-sources followed by ellipsis (i.a. Ross, 1969), and 2) one that does not involve ellipsis at all, but is rather a case of *pseudosluicing* (in its original formulation, Merchant, 2001). In particular, examples such as (1) involve the **combination of pro-drop and null copula**, operations independently available in the language, whose restricted distribution explains constraints we observe on the distribution of *pseudosluic-ing*. Thus, on our analysis, there is only one possible source for Hungarian sluicing structures. **1. BASIC FACTS.** In Hungarian, predicative adjectives show number agreement with the subject (2a),

but attributive adjectives do not show number agreement with the noun they modify (2b):

(2)	a. A	lány-ok magas-*(ak).	b.	Mari ismer	magas-(*ak)	lány-ok-at.
	The	e girl-PL tall-*(PL)		Mary knows	tall-(*PL)	girl-PL-ACC
	'The	e girls are tall.'		'Mary knows	s tall girls.'	

In adjectival sluices, the remnant must bear number marking, agreeing with the number of the correlate (Elliott, 2013); that is, (1) patterns with (2a). This was taken as evidence for a copular source analysis of sluicing in general, and adjectival sluices in particular, based on the sentence's English counterpart (3):

(3) Mary knows some tall girls, but I don't know how $tall_i$ the girls that Mary knows are t_i

2. AN ISOMORPHIC SOURCE FOR ADJECTIVAL SLUICES. However, what seems to have gone unnoticed in prior literature is the fact that the remnant in an adjectival sluice can also be marked with case, matching the case of the noun its correlate modifies (see Merchant, 2001 for similar facts in Greek):

(4) Mari ismer néhány magas lány-t, de nem tudom milyen magas-ak-at. (cf. (1)) Mary knows some tall girl-ACC, but not know.I how tall-PL-ACC
'Mary knows some tall girls, but I don't know how tall.'

We argue that for (4), the only possible source is an isomorphic wh-question (5a) followed by NP-ellipsis (NPE), as shown in (5b). In Hungarian, number and case marking in non-elliptical sentences only shows up on the noun (*-ok-at* in (5a)). Yet when NPE applies, they obligatorily occur on the last remnant of the elliptical site (i.e. the adjective, *-ak-at* in (5b)) –see Saab & Lipták (2016) for an account of these facts. (5) a. ...milyen magas lány-ok-at (ismer)? b. ...milyen magas-ak-**at** \emptyset (ismer)?

a. ...milyen magas lány-ok-at (ismer)?b. ...milyen magas-ak-at ∅ (ismer)?how tall girl-PL-ACC she.knowshow tall-PL-ACC she.knows(lit.) 'How tall girls does she know?'(lit.) 'How tall (girls) does she know?'

'... how tall are the girls that she knows.' '... how tall are the girls that she knows.' **3. CASE MISMATCHES ARE DISALLOWED IN HUNGARIAN.** As mentioned, examples like (1) have been analyzed as arising from a copular source (e.g. Barros, 2016). On the other hand, we argue that examples such as (4) have an isomorphic wh-source. Based on this, free optionality between the two kinds of ellipsis sources may be posited –this, however, would make an incorrect prediction. If copular sources for ellipsis were always available in Hungarian, then case-mismatches would also be allowed in regular sluicing. As (6a) shows, this is not the case: (non-adjectival) sluices prohibit case-mismatches, in compliance with Merchant's (2001) Case-Matching Generalization: *The sluiced wh-phrase must bear the case that its correlate bears*. This is despite the fact that copular continuations are possible with a nominative wh-phrase (6b):

(6) a. Mari ismer valaki-t, de nem tudom ki-*(t).
 Mary knows someone-ACC, but not know.I who-*(ACC)
 'Mary knows someone, but I don't know who.'

b. Mari ismer valaki-t, de nem tudom ki-(*t) az/ő.
Mary knows someone-ACC, but not know.I who-(*ACC) that/(s)he 'Mary knows someone, but I don't know who they are.'

A possible, but conceptually unappealing explanation is to propose that copular sources are allowed only in one type of clausal ellipsis: in adjectival sluices (1), but not in regular sluices (6a). On the contrary, our proposal explains the facts without appealing to construction-specific constraints, and is rather independently motivated by properties of the language: the existence of, and restrictions on, pro-drop and null copula. **4.** APPARENT CASE MISMATCHES ARE NOT ELLIPTICAL. We argue that cases like (1) arise from the combination of a null subject (Dalmi, 2014) and a null copula (É. Kiss, 2002; Hegedűs, 2013), which conspire to give the illusion of an ellipsis configuration (i.e. *pseudosluicing*):

(7) Mari ismer néhány magas lány-t, de nem tudom milyen magas-ak \mathbf{BE}_{null} *pro*. (=(1)) Mary knows some tall girl-ACC, but not know.I how tall-PL

Further support for our analysis comes from structures where the copula needs to be spelled out. Null copulas in adjectival predicates are **restricted to 3rd person and present tense** (i.a. É. Kiss, 2002). As can be seen in e.g. adjectival questions, copulas are absent in the present (8), but obligatory in the past tense (9):

(8) Milyen magas-ak (*van-nak) a lány-ok?(9) Milyen magas-ak *(volt-ak) a lány-ok?
how tall-PL be.PRES-PL the girl-PL
'How tall are the girls?'
Milyen magas-ak *(volt-ak) a lány-ok?
how tall-PL be.PAST-PL the girl-PL
'How tall are the girls?'

The presence/absence of the copula in the non-elliptical wh-question determines if apparent adjectival sluices without case-matching (i.e. *pseudosluicing*) are allowed. This correctly predicts that patterns change when a past reading is enforced: either accusative marking (10) or the copula (11) is obligatory (cf. 7):

- (10) M. megölt néhány magas lány-t 1880-ben, de nem tudom milyen magas-ak-**at**. M killed some tall girl-ACC 1880-INESSIVE, but not know.I how tall-PL-ACC
- M. megölt néhány magas lány-t 1880-ben, de nem tudom milyen magas-ak *(voltak).
 M killed some tall girl-ACC 1880-INES., but not know.I how tall-PL be.PAST.PL Both: 'Mary killed some tall girls in 1880 but I don't know how tall.'

Similarly, a null copula is not allowed in persons other than 3rd (non-elliptical questions demonstrating this omitted for space reasons), which again predicts the unavailability of *pseudosluicing*. While null copula (and therefore *pseudosluicing*) are possible with 3rd person (12 and 7), they are ruled out in 2nd person (13). Thus the **3rd-2nd person contrast** parallels the **present-past tense contrast**.

- (12) Magas-nak képzelem a lányokat de nem tudom valójában milyen magas-ak (*van-nak) tall-DAT imagine. I the girls but not know. I in. reality how tall-PL be.PRES-PL
 'I imagine the girls (to be) tall but I don't know how tall (they actually are).'
- (13) Magas-nak képzellek de nem tudom valójában milyen magas *(vagy).
 tall-DAT imagine.I→you but not know.I in.reality how tall be.PRES
 'I imagine you (to be) tall but I don't know how tall you actually are.'

Sluicing, where the remnant adjective bears DAT is allowed for both persons (12, 13). Those examples (omitted for space) mean: '...but I don't know how tall I imagine you to be'. We derive such case-marked sentences (including (10)) from a wh-source, followed by clausal ellipsis and NPE, as in (4)-(5b).

5. CONCLUSIONS. In this paper we show that **non-isomorphic sources are not possible in Hungarian ellipsis**. (Apparent) adjectival sluices can arise from **two different configurations**, yielding different number and case marking. On the one hand, true cases of clausal ellipsis arise only from **isomorphic wh-questions** (see 4 and 5b). These show case-matching and number/case marking on the adjective, as is predicted by properties of NPE in Hungarian. On the other hand, **contra previous analyses, apparent mismatching sluices are not derived from ellipsis**, but from the combination of two independent properties of the language: **null subject and null copula** (see 7). Thus our proposal dispenses with the need to posit two different sources of ellipsis within the same language, and contributes to the discussion about the structure inside the ellipsis site, showing that copular sources cannot be sources for ellipsis.