

# **Case-(Mis)Matching in Urdu Sluicing**

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**Abstract**

*Previous literature on Hindi-Urdu sluicing has noted strong Case-matching effects. In this paper, I show that grammatical Case-mismatching is also found in Urdu sluicing. The constraints on the mismatching match the requirements of Abels' (2017) Fit condition: the remnant must fit into the position of the correlate to form a syntactically well-formed structure, and the meaning of antecedent and sluice should be identical. I also show that applying the Fit condition at the level of the deep structure incorrectly predicts widespread Case-mismatching, and thus, it should be applied at surface-level with form-by-form matching.*

**Glossing Abbreviations**

CAUS	causative
DAT	dative
DIST	distal
DRESP	disrespectful
ERG	ergative
F	feminine
FAM	familiar
FOC	focus
INS	instrumental
INTR	intransitive
IPFV	imperfective
LOC	locative
NOM	nominative
M	masculine
OBL	oblique
PFV	perfective
PL	plural
PROG	progressive
PROX	proximal
REL	relative pronoun
RESP	respectful
SG	singular
TR	transitive

## 1. Introduction

Previous literature has noted strong Case connectivity in Urdu sluicing (e.g. Bhattacharya & Simpson, 2012). In this paper, I present data which show that highly constrained Case-mismatching is also found in Urdu sluicing. This provides evidence for structure at the ellipsis site and a semantic identity condition between the antecedent and the elided material. Case-copying, as suggested by approaches with no structure in the ellipsis site, cannot account for Case-mismatching, while syntactic isomorphism cannot account for the constraints on the mismatching. Furthermore, I show that the Fit condition (Abels, 2017), applied at surface level, is a necessary addition to any semantic identity account to explain the full set of facts.

I begin with an overview of theories of sluicing in §2. In §3, I outline the properties of Urdu sluicing. §4 provides a summary of the Urdu Case system. In §5, I present the Case-mismatching data. In §6, I argue that only an account with syntactic structure and semantic identity supported by the Fit condition is able to explain the data. In §7, I show that the Fit condition should be applied at surface level as applying it to structural level over-generates. Finally, in §8, I compare the Urdu data to Case-mismatching evidence from Icelandic. §9 provides a conclusion.

## 2. Theories of Sluicing

Sluicing refers to the construction in which only the wh-phrase of a question is pronounced overtly (1) (Ross, 1969).

- (1) a. Omar went somewhere but I don't know where.  
       b. A: I saw a movie last night.  
           B: Which one/movie?  
       c. Chiara met Victoria but I can't remember whom else.  
       d. She went out for lunch but she didn't say with whom.

I will use the following terminology: The ellipsis (E-) site is the missing material that is otherwise found in wh-questions. The remnant is the overt wh-phrase (in (1a), *where*). Together, the E-site and remnant form the sluice. The preceding clause from which the meaning of the sluice is derived is the antecedent (*Omar went somewhere*). Within the antecedent, the correlate is the indefinite whose identity is being questioned (*somewhere*).

The two main questions for ellipsis are as follows:

- a) Is there syntactic structure at the E-site?
- b) Is the identity condition between the antecedent and the sluice syntactic or semantic?

Ross (1969) noted four key properties of sluicing:

1. The sluice behaves like a CP.
2. There is robust Case-matching between the correlate and remnant.
3. Remnant size follows from the constraints on regular *wh*-movement in a language.
4. Sluicing is island-insensitive.

Ross (1969) proposed a purely syntactic account, arguing for syntactic structure in the E-site licensed by syntactic identity. Case-matching follows as the Case-assigners in the antecedent and sluice are identical. Such an account also predicts Case-mismatching if the Case assigner licenses multiple Case. The real challenge for syntactic approaches to sluices lies with the island-insensitivity of most cases of sluicing (see Ross, 1969; Chomsky, 1972; Hornstein, Lasnik & Uriagereka, 2007; Müller, 2011 for proposed solutions; see Abels, 2011; Abels & Thoms, 2014; Barros et al, 2014 a.m.o. for discussion).

On the other end of the spectrum are purely semantic accounts (e.g. Culicover & Jackendoff, 2005). This approach rejects structure in the E-site and posits that meaning is recovered through semantics/pragmatics. Lack of island effects follows directly from absence of structure in the E-site. However, island sensitivity of some cases of sluicing, such as contrast sluicing, (e.g. Abels & Thoms, 2014; Barros et al, 2014; Fukaya, 2012) and locality constraints in multiple sluicing (Abels & Dayal, 2017) cannot be explained. No syntactic structure in the E-site also leaves Case-matching unaccounted for. A Case-copying mechanism has been suggested, whereby the Case of the antecedent is copied onto the remnant. Such a mechanism would predict strict Case-matching and disallow all mismatching.

Occupying the middle ground, hybrid approaches argue for syntactic structure in the E-site with a semantic identity condition (e.g. Merchant, 2001). These accounts claim that although there is structure in the E-site, it is not necessarily identical to the antecedent. This is effective in explaining the mixture of island sensitivity and insensitivity (e.g. Abels & Thoms, 2014; Barros et al, 2014; Fukaya, 2012), as well as many structural mismatches seen in sluicing (Rudin, to appear). However, as noted by Lasnik (2005) and Abels (2017), the possibility of

paraphrases leaves the general Case connectivity unexplained and opens the door to widespread Case-mismatching. Abels (2017) proposes the Fit condition as a solution to this obstacle.

(2) Fit condition: (FIT)

Modulo agreement in the antecedent and wh-movement, replacing the correlate by the remnant in the antecedent must lead to a syntactically well-formed structure with the right meaning or – for sprouting – adding the correlate into the antecedent and making no further changes must lead to a syntactically well-formed structure with the intended thematic interpretation.

As will be shown through the course of this paper, FIT is able to account for Urdu Case-(mis)matching, while purely syntactic or semantic approaches are not. I, therefore, argue in favour of the hybrid approach with FIT as an essential constraint.

### 3. Properties of Urdu Sluicing

Sluicing is found in Urdu (3).

- (3) a. *Omar kahin gaya tha lekin mujhe*  
 Omar.NOM somewhere.OBL.LOC gone was but IOBL.DAT  
*pata nahi kahaan.*  
 know not where.OBL.LOC  
 ‘Omar went somewhere but I don’t know where.’
- b. A: *Mein=ne kal raat eik film dekhi thi.*  
 IOBL=DAT yesterday night one film.NOM saw was.  
 ‘I saw a movie last night.’  
 B: *Kaunsi ( { wali | film } ) ?*  
 Which ( { one.NOM | film.NOM } ) ?  
 ‘Which (one/film)?’
- c. *Chiara Victoria=se mili thi lekin mujhe*  
 Chiara.NOM Victoria.OBL=INS met was but IOBL.DAT  
*yaad nahi aur kis=se.*  
 remember not and who.OBL=INS

‘Chiara met Victoria but I can’t remember whom else.’

- d. *Wo khaane=ke liye bahar gaiyn*  
 She.NOM food.OBL.=GEN for out.OBL.LOC went was  
*thiin lekin unho=ne bathaya nahi keh kis=ke*  
 was but she.OBL=ERG told not that who.OBL=GEN  
*saath*  
 with.

‘She went out for lunch but she didn’t say with whom.’

Ross (1969) noted that sluices behave like CPs. This is seen very clearly in Urdu as the complementiser may be overt in sluicing (4) (Bhattacharya & Simpson, 2012).

- (4) *Neyha=ne kuch kharida he aur us=ne*  
 Neyha=ERG something.NOM bought is and she.OBL=ERG  
*sirf mujhe bathaya he keh kya*  
 only I.OBL.DAT told is **that** what.NOM

‘Neyha has bought something and she has only told me what.’

Moreover, wh-questions have been identified as the source for Urdu sluices (e.g. Bhattacharya & Simpson, 2012; Gribanova & Manetta, 2016; Manetta, 2013). There are several reasons to believe that copular clauses are not the default source for Urdu sluices.<sup>1</sup> Copular sources may be of two types: null copular or elided copular sources. Both contain a pronominal subject, a copula, and a wh-pivot. In null copular clauses, the pronominal subject and the copula are null, leaving only the wh-pivot overt. Conversely, in elided copular clauses, the wh-pivot moves out of the clause which is then deleted. Urdu does not have null copular structures independent of sluicing, making them unlikely sources for Urdu sluicing (Bhattacharya & Simpson, 2012; Gribanova & Manetta, 2016). Elided copular clauses are possible; however, Urdu sluices and copular structures have distinctly different properties. Urdu sluices pattern with regular wh-movement rather than copular clauses, providing evidence against the latter as the default source for Urdu sluices.

<sup>1</sup> Copular sources may still be available as a last resort (van Craenenbroeck, 2010) in Urdu sluicing (for example, for island evasion (Barros et al, 2014)).

As in many other languages, Urdu copular structures license nominative Case only (5) (Bhattacharya & Simpson, 2012). Sluices, on the other hand, are not confined to nominative Case (3), similar to regular wh-questions (6).

- (5) a. *Wo* { *Yousra* | \**Yousra=ne* | \**Yousra=se* }  
 It { *Yousra.NOM* | \**Yousra.OBL=ERG* | \**Yousra.OBL=INS* }  
*thi jis=ne Omar=ko kitaabein diin thiin.*  
 was REL.OBL=ERG Omar.OBL=DAT books.NOM gave was.  
 ‘It was Yousra who gave the books to Omar.’

- b. *Wo* { *kaun* | \**kis=ne* | \**kis=se* } *thA*  
 It { *who.NOM* | \**who.OBL=ERG* | \**who.OBL=INS* } was  
*jis=ne Omar=ko kitaabein diin thiin?*  
 REL.OBL=ERG Omar.OBL=DAT books..NOM gave was  
 ‘Who was it who gave the books to Omar?’

- (6) *Kis=ne Omar=ko kitabein diin thiin?*  
 Who.OBL=ERG Omar.OBL=DAT books. NOM gave was ?  
 ‘Who gave the books to Omar?’

Moreover, Urdu clefts are ungrammatical with adjuncts (7) (Gribanova & Manetta, 2016). Conversely, sluicing (8) and wh-questions (9) are both perfectly acceptable with adjuncts. (8) also shows that the non-elided counterpart with a copula source would be entirely ungrammatical.

- (7) \**Wo achi tarah tha jis=se tum=ne*  
 \*It good manner.NOM was REL.OBL=INS you.OBL=ERG  
*kursi jori thi.*  
 chair.NOM fix was.  
 ‘It was well that you fixed the chair.’ (You fixed the chair well.)

- (8) *Wo nani=ke ghar gai thi lekin*  
 She.NOM grandma.OBL=GEN house.OBL.LOC went was but



*mujhe pata nahi kese (\*wo tha)*  
 IOBL.DAT know not how (\*it was)  
 ‘She went to grandma’s house but I don’t know how (\*it was).’

- (9) *Wo nani=ke ghar kese gai thi?*  
 She.NOM grandma.OBL=GEN house.OBL.LOC how.INS went was?  
 ‘How did she go to grandma’s house?’

Furthermore, Urdu copular structures only have exhaustive interpretations while sluices and wh-questions may have non-exhaustive interpretations as well (10) (Gribanova & Manetta, 2016).

- (10) *Koi aap=ki madad karey ga.*  
 Someone.NOM you.OBL=GEN help do will.  
 ‘Someone will help you.’
- a. *Maslan, kaun (\*he)?*  
 Example, who.NOM (\*is)?  
 ‘For example, who (\*it is)?’
- b. *Aap mujhe bathaa sakte hein (keh) maslan*  
 You.NOM IOBL.DAT tell can is (that) example  
*kaun (\*he)?*  
 who.NOM (\*is)?  
 ‘Can you tell me, for example, who (\*it is)?’
- c. *Maslan kaun meri madad karey ga?*  
 Example who.NOM me.OBL.GEN help do will?  
 ‘Who, for example, will help me?’

Finally, sluicing (11) and wh-questions (12) are also compatible with ‘else-modification’, while once again, clefts are not (11).

- (11) *Abba khaana le kar aaey hein lekin pata nahi aur*  
 Dad.NOM food.NOM bring do come is but know not and  
*kya (\*he)*  
 what.NOM (\*is)  
 ‘Dad brought food but I don’t know what else (\*it is).’

- (12) *Abba aur kya le kar aaey hein?*  
 Dad.NOM and what.NOM bring do come is?  
 ‘What else has Dad brought?’

Thus, we see that Urdu sluices consistently pattern with wh-questions over copular structures. This indicates that copular clauses are not the default source for sluicing.<sup>2</sup>

Urdu follows Merchant’s (2001) preposition stranding generalisation. P-stranding is banned in both regular wh-questions (14) and sluicing (15).

- (13) P-stranding generalisation:

A language L will allow P-stranding under sluicing iff L allows P-stranding under wh-movement.

- (14) a. *Kis=ke saath tumhara khyaal he (keh)*  
 Who.OBL=GEN with you.OBL.GEN thought.NOM is (that)  
*Hira bazaar gai thi.*  
 Hira.NOM market.OBL.LOC went was.  
 ‘With whom do you think Hira went to the market?’
- b. \**Kis=ke tumhara khyaal he (keh)*  
 \*Who.OBL=GEN you.OBL.GEN thought.NOM is (that)  
*Hira saath bazaar gai thi?*  
 Hira.NOM with market.OBL.LOC went was?  
 ‘Who do you think Hira went to the market with?’
- (15) a. *Hira kisi=ke saath bazaar gai*  
 Hira.NOM someone.OBL=GEN with market.OBL.LOC went  
*thi lekin mujhe pata nahi (keh) kis=ke saath*  
 was but I.OBL.DAT know not (that) who.OBL=GEN with  
 ‘Hira went to the market with someone but I don’t know with whom.’

<sup>2</sup> Manetta (2013) shows that other possible sources, such as elision of a phrase smaller than TP, stripping, and high focus projection, are not available to Urdu sluices. Gribanova and Manetta (2016) show that scrambling is also not a possible source for Urdu sluicing.

- b. \*Hira kisi=ke saath bazaar gai  
 \*Hira.NOM someone.OBL=GEN with market.OBL.LOC went  
 thi lekin mujhe pata nahi (keh) kis=ke  
 was but I.OBL.DAT know not (that) who.OBL=GEN  
 ‘Hira went to the market with someone but I don’t know who.’

Moreover, Urdu sluicing shows island repair. Bhattacharya and Simpson (2012) report mixed judgements, but other literature provides more conclusive results. Gribanova and Manetta (2016) tested sluicing out of complex NPs and coordinate structures, and found it to be generally acceptable. Bagasur (2014) also give a comprehensive overview of strong island violations in sluicing and deem them grammatical in merger sluicing. It seems that Urdu exhibits the same kind of island amelioration in sluicing as seen in other languages.

Finally, we turn to Case connectivity. Urdu shows a strong preference for Case-matching (e.g. Bagasur, 2014; Bhattacharya & Simpson, 2012). The verb *pata* (*know*) assigns nominative Case (16a). However, nominative Case on the remnant, *who*, is ungrammatical when the correlate, *someone*, has a different Case (16b), in this example, instrumental Case. This shows that the verb *pata* cannot be assigning Case to the remnant.

- (16) a. *Mujhe* { *jawaab* | \**jawaab=se* } (*nahi*) *pata* *he*.  
 I.OBL.DAT { answer.NOM | \*answer.OBL=INS } (not) know is.  
 ‘I do (not) know the answer.’
- b. *Wo* kisi=se pyaar kartha he  
 He.NOM someone.OBL=INS love.NOM do is  
*lekin pata nahi* { *kis=se* | \**kaun* }  
 but know not { who.OBL=INS | \*who.NOM }  
 ‘He loves someone but I don’t know who.’

There is little discussion on Case-matching in Urdu sluicing beyond such cursory observations. Thus, Case-mismatching has gone largely unnoticed. Bagasur (2014) present some facts about Hindi-Urdu Case-mismatching which I discuss in §7. For now, I move onto the Urdu Case system.

#### 4. Urdu Case System

Urdu has a highly productive Case system. There are seven Cases, generally realised as post-nominal clitics. These are summarised in Table 1 (17). Much of this section is derived from Butt and King (2004) and Davison (2015).

(17) *Table 1: Urdu Case Markers*

Case	Clitic	Grammatical Function	Oblique Marking on NP
Nominative	∅	Subject/object	×
Ergative	-ne	Subject	✓
Dative	-ko	Subject/indirect object	✓
Accusative	-ko	Object	✓
Instrumental	-se	Subject/object/adjunct	✓
Genitive	k-	Subject/specifier	×
Locative	-mein/par/tak/∅	Object/adjunct	✓

(adapted from Butt & King, 2004)

The Urdu Case system is generally classified as a split ergative system along the dimension of tense/aspect (e.g. Butt, 2017; Davison, 2015). Ergative Case, *ne*, appears on subjects of (di)transitive (18a c.f. 18b) and intransitive verbs (19) in perfective form. It is generally considered obligatory on the former and optional on the latter, where it alternates with nominative Case (19).

- (18) a. *Chiara=ne violin baja-ya he.*  
 Chiara.OBL=ERG violin.NOM play.TR-PFV is.  
 ‘Chiara has played the violin.’

- b. *Chiara violin bajathi he.*  
 Chiara.NOM violin.NOM plays.TR.IPFV is.  
 ‘Chiara plays the violin.’

- (19) { *Shakeel=ne | Shakeel* } *bahar=se chilla-ya*  
 { Shakeel.OBL=ERG | Shakeel.NOM } *outside.OBL=INS shout.INTR-PFV*  
 ‘Shakeel shouted from outside’

However, as pointed out in various literature, this classification is an oversimplification. Although the distribution of ergative Case is heavily influence by tense/aspect, there are many exceptions. Firstly, as mentioned, nominative and ergative Case alternate for a class of perfective intransitive verbs (19, 20). Secondly, there is a class of transitive verbs that do not assign ergative Case at all in their perfective form, instead licensing nominative Case only (21). Considering these exceptions, some experts (e.g. Butt, 2017) conclude that the Urdu Case system is essentially a nominative-accusative one, with the addition of ergative Case which is associated with various semantic factors, such as volitionality (see §5.1).

- (20) { *Bache=ne* | *bacha* } *muskara-ya*  
 { Boy.OBL=ERG | boy.NOM } smile.INTR-PFV  
 ‘The boy smiled.’

- (21) a. *Hamara school jeete ga.*  
 Our.OBL.GEN school.NOM win.TR.IPFV will.  
 ‘Our school will win.’
- b. *Hamara school jeet-a*  
 Our.OBL.GEN school.NOM win.TR-PFV  
 ‘Our school won.’

Let us now discuss the distribution of the remaining Cases.

Nominative Case in Urdu is phonologically null. It is found on both subjects and direct objects, and furthermore, there may be more than one nominative argument in a sentence (18b). The verb agrees with the highest nominative argument. Default agreement (masculine, singular) is seen when there is no nominative argument (22).

- (18) *Chiara violin bajath-i he.*  
 Chiara.F.NOM violin.M.NOM play-F.SG is.  
 ‘Chiara plays the violin.’
- (22) *Laura=ne kitaab=ko parh liy-a he.*  
 Laura.OBL=ERG book.F.OBL=ACC read took-M.SG is.  
 ‘Laura has read the book.’

Dative and accusative Case have the same phonological form, *ko*, however, they show different properties (Butt & King, 2004). Dative Case is generally associated with the thematic role of goal or experiencer. It is obligatory on indirect objects (23). Additionally, subject experiencers are marked with dative Case, for example, subjects of psych verbs (24a) and of complex predicates (24b). On the other hand, accusative Case is found only on direct objects where it alternates with nominative Case in differential object marking (see §5.3) (25).

- (23) *Sana=ne* { *Victoria=ko* | *\*Victoria* } *phool* *diye*.  
 Sana.OBL=ERG { Victoria.OBL=DAT | \*Victoria.NOM } flowers.NOM gave.  
 ‘Sana gave flowers to Victoria.’

- (24) a. *Nabeel=ko* *bohath* *ghussa* *aatha* *tha*.  
 Nabeel.OBL=DAT a.lot anger.NOM come was.  
 ‘Nabeel used to get very angry.’

- b. *Rohail=ko* *cycle* *chalaana* *aa* *gaii* *he*.  
 Rohail.OBL=DAT cycle.NOM ride come went is.  
 ‘Rohail has learnt how to ride a bike.’

- (25) *Sahl=ne* { *ghar* | *ghar=ko* } *dekha*.  
 Sahl.OBL=ERG { house.NOM | house.OBL=ACC } saw.  
 ‘Sahl saw the house.’

Instrumental Case, *se*, is the most diverse. It is used for instrumental adjuncts (26a), locative sources (26b), materials (26c), comitatives (26d) and causees (26e). It is also found on the demoted subject in passive constructions (26f).

- (26) a. *Mahjabeen=ne* *khirki* *kapre=se* *saaf* *ki*.  
 Mahjabeen.OBL=ERG window.NOM cloth.OBL=INS clean did.  
 ‘Mahjabeen cleaned the window with the cloth.’

- b. *Mein* *London=se* *Karachi* *jaon* *gi*.  
 I.NOM London.OBL=INS Karachi.OBL.LOC go will.  
 ‘I will go to Karachi from London.’

- c. *Ye kameez cotton=se bani hui he.*  
 This shirt.NOM cotton.OBL=INS made happened is.  
 ‘This shirt is made from cotton.’
- d. *Saare bhai behen eik doosre=se larthe*  
 All brothers.NOM sisters.NOM one another.OBL=INS fight  
*hein.*  
 do.  
 ‘All brothers and sisters fight with each other.’
- e. *Sana=ne Omar=se saara kaam karvaya.*  
 Sana.OBL=ERG Omar.OBL=INS all work.NOM did.CAUS  
 ‘Sana made Omar do all the work.’
- f. *Katherine=ka pyaala (Becky=se) toot gya.*  
 Katherine.OBL=GEN bowl.NOM (Becky.OBL=INS) break went.  
 ‘Katherine’s bowl was broken (by Becky).’

Genitive Case is mostly found in the specifier of NP (27a). It is also seen on the subjects of non-finite clauses (27b) and of finite copular structures (27c). The genitive Case marker agrees with the head noun for gender, number and obliqueness (27a, c).

- (27) a. *Yousuf=ki beti-yaan school*  
 Yousuf.M.SG.OBL=GEN.F.PL daughter-F.PL school.OBL.LOC  
*jaathin hein.*  
 go do.  
 ‘Yousuf’s daughters go to school.’
- b. *Yousuf=ke aathey hi hum niklein ge.*  
 Yousuf.OBL=GEN come FOC we.NOM leave will.  
 ‘We will leave as soon as Yousuf comes.’
- c. *Yousuf=ki do beti-yaan hein.*  
 Yousuf.M.SG.OBL=GEN.F.PL two daughter-F.PL are.  
 ‘Yousuf has two daughters.’

Lastly, there is locative Case. Overt locative Case markers include *mein* (28a), *tak* (28b), and *par* (28c). Locative Case can also be phonologically null (28d). The form of this Case varies depending on meaning and context, as indicated by the translations in (28). The details of this variation are irrelevant to the present discussion.

- (28) a. *Vo kamre=mein he.*  
 He/she.NOM room.OBL=LOC is.  
 ‘He/she is in the room.’
- b. *Hum sirf gali=ke kone=tak jaa-rahay*  
 We.NOM only street.OBL=GEN corner.OBL=LOC go-PROG  
*hein.*  
 are.  
 ‘We’re only going till the corner of the street.’
- c. *Kutta meiz=par charh gya tha.*  
 Dog.NOM table.OBL=LOC climb did was.  
 ‘The dog climbed onto the table.’
- d. *Khala Karachi aaen gii.*  
 Aunt.NOM Karachi.OBL.LOC come will.  
 ‘Aunt is going to come to Karachi.’

Oblique marking is seen on NPs followed by overt Case markers (Butt, 1995). The only exception is the phonologically null locative Case marker which also requires oblique marking (29b). Nominative stems never inflect (29a). Oblique marking is overt only in masculine nouns (Butt, 2017). The masculine morpheme, *-a*, inflects to *-e* as seen in (30b c.f. 31b). Oblique marking is also visible in the various pronoun forms (32), as Case marking on pronouns results in morphological change.

- (29) a. *Shakeel daak khaana dekh kar aaya.*  
 Shakeel.NOM post office.NOM saw do came.  
 ‘Shakeel went and saw the post office.’



- b. *Shakeel daak khaane jaa-rahay hein.*  
 Shakeel.NOM post office.OBL.LOC go-PROG is.  
 ‘Shakeel is going to the post office.’
- (30) a. *Larka hansi rokne=ki koshish kar-raha tha.*  
 Boy.NOM laughter.NOM stop.OBL=GEN try do-PROG was  
 ‘The boy was trying to stop his laughter.’
- b. *Larke=ne hansi rokne=ki koshish ki.*  
 Boy.OBL=ERG laughter.NOM stop.OBL=GEN try did.  
 ‘The boy tried to stop his laughter.’
- (31) a. *Larki hansi rokne=ki koshish kar-rahii thi.*  
 Girl.NOM laughter.NOM stop.OBL=GEN try do-PROG was  
 ‘The girl was trying to stop her laughter.’
- b. *Larki=ne hansi rokne=ki koshish ki.*  
 Girl.OBL=ERG laughter.NOM stop.OBL=GEN try did.

(32)

Table 2: Pronominal forms

	NOM	ERG	ACC/DAT	INS	LOC	GEN
1.SG	<i>mein</i>	<i>mein=ne</i>	<i>mujh=ko</i> <i>mujhe</i>	<i>mujhe=se</i>	<i>mujhe=par</i>	<i>mer-a/i/e</i>
1.PL	<i>ham</i>	<i>ham=ne</i>	<i>ham=ko</i> <i>hamein</i>	<i>ham=se</i>	<i>ham=par</i>	<i>hamar-a/i/e</i>
2.DRESP	<i>tu</i>	<i>tu=ne</i>	<i>tujh=ko</i> <i>tujhe</i>	<i>tujh=se</i>	<i>tujh=par</i>	<i>ter-a/i/e</i>
2.FAM	<i>tum</i>	<i>tum=ne</i>	<i>tum=ko</i> <i>tumhein</i>	<i>tum=se</i>	<i>tum=par</i>	<i>Tumhar-a/i/e</i>
2.RESP	<i>aap</i>	<i>aap=ne</i>	<i>aap=ko</i>	<i>aap=se</i>	<i>aap=par</i>	<i>aap=k-a/i/e</i>
3.PROX.SG	<i>ye</i>	<i>is=ne</i>	<i>is=ko</i> <i>isse</i>	<i>is=se</i>	<i>is=par</i>	<i>is=k-a/i/e</i>

3.PROX.PL	<i>ye</i>	<i>in=ne</i> <i>inho=ne</i>	<i>in=ko</i> <i>inho=ko</i> <i>inhein</i>	<i>in=se</i> <i>inho=se</i>	<i>in=par</i> <i>inho=par</i>	<i>in=k-a/i/e</i> <i>inho=k-a/i/e</i>
3.DIST.SG	<i>vo</i>	<i>us=ne</i>	<i>us=ko</i> <i>usse</i>	<i>us=se</i>	<i>us=par</i>	<i>us=k-a/i/e</i>
3.DIST.SG	<i>vo</i>	<i>un=ne</i> <i>unho=ne</i>	<i>un=ko</i> <i>unho=ko</i> <i>unhein</i>	<i>un=se</i> <i>unho=se</i>	<i>un=par</i> <i>unho=par</i>	<i>un=k-a/i/e</i> <i>unho=k-a/i/e</i>

(Butt &amp; King, 2004)

## 5. Case-Mismatching

As mentioned briefly in the previous section, select verbs allow certain Case alternations in restricted environments. These alternations form the basis of my Case-mismatching data.

There are four pairs of alternating Cases:

- a) Ergative-Nominative
- b) Ergative-Dative
- c) Nominative-Accusative
- d) Accusative-Instrumental

I test for Case-mismatching by alternating between each pair on the correlate and remnant. Purely syntactic accounts predict grammatical mismatches between all four pairs, as the alternation is structurally licensed by the verb. Purely semantic accounts do not predict any grammatical mismatching at all as feature-copying from the correlate to the remnant allows strict Case-matching only. Finally, hybrid accounts predict grammatical mismatching (syntactic structure), but only as far as the meaning of the antecedent and sluice remain the same (semantic identity).

In the following sub-sections, I test for Case-mismatching in six types of sluicing: root and embedded merger sluicing, root and embedded contrast sluicing, and root and embedded multiple sluicing. A range of sluicing structures have been incorporated to ensure that any effects seen are consistent. Both root and embedded structures are used to include both two-speaker and single-speaker exchanges (see §8, footnote 5). Sprouting is not included as Case-(mis)matching cannot be tested without an overt correlate. In §4, I glossed over the semantic

contributions of the Case markers. I now introduce these to the discussion as I present the (mis)matching data for each alternation. Only two pairs allow grammatical mismatches under sluicing. This is predicted correctly by the hybrid approach but by neither of the other approaches. §6 elaborates on this analysis.

### 5.1 *Ergative-Nominative (ERG-NOM)*

ERG-NOM alternation is seen on subjects of intransitive unergative verbs in perfective forms of simple past and present tense verbs (33) (Butt, 1993b; Butt & King, 2004; Davison, 2015; Butt, 2017). There is some speaker variation regarding the acceptability of ergative Case on subjects of intransitive verbs, so this alternation might not exist for all speakers.

- (33) { *Saad=ne* | *Saad* } *bahar=se* *cheekha*.  
 { Saad.OBL=ERG | Saad.NOM } outside.OBL=INS screamed  
 ‘Saad screamed from outside.’

Ergative Case is generally associated with volitionality or agency (e.g. Butt & King, 2004). On the other hand, Davison (2015) claims this is not a fixed pattern, pointing towards subject experiencers which carry ergative Case, as in (34).

- (34) *Tum=ne* *yeh* *film* *kal* *dekhi* *he*.  
 You.OBL=ERG this film.NOM yesterday seen is.  
 ‘You have seen this film yesterday.’ (Davison, 2015)

Butt and King (2004) cite work by Bashir (1999) on use of ergative Case in Urdu TV dramas. Elaborating on Bashir’s (1999) analysis, they establish that ergative Case has no semantic contribution when it is obligatory (as in (34)) but contributes a [+conscious choice] feature when it is optional. In other words, use of ergative Case in environments where alternation is possible implies agency of the subject. This is in line with my own intuitions for the ERG-NOM alternation.

The semantic contribution of ergative Case becomes more apparent with an appropriate modifier. Using ergative Case with *ghalti se* (*by mistake*) in (35a) is significantly worse than using nominative Case in the same sentence. Moreover, using the opposite modifier, *jaanke* (*knowingly/purposefully*) is not compatible with nominative Case. This supports the idea that ergative, but not nominative, subjects are interpreted as having control over the action.

- (35) a.  $\{ \text{Mein} \quad | \text{?Mein=ne} \}$  *ghalthi=se* *khaansa.*  
 $\{ \text{I.NOM} \quad | \text{?I.OBL=ERG} \}$  mistake.OBL=INS coughed.  
 ‘I coughed by mistake.’
- b.  $\{ \text{?Mein} \quad | \text{Mein=ne} \}$  *jaanke* *khaansa.*  
 $\{ \text{I.NOM} \quad | \text{I.OBL=ERG} \}$  knowingly coughed.  
 ‘I coughed on purpose.’

ERG-NOM alternation does not give rise to Case-mismatching in any of the sluicing structures tested (36 – 41).

- (36) a. A: *Koi* *khaansa* *tha.*  
 Someone.NOM coughed was.  
 ‘Someone coughed.’  
 B:  $\{ \text{Kaun} \quad | \text{*kis=ne} \} ?$   
 $\{ \text{who.NOM} \quad | \text{*who.OBL=ERG} \} ?$   
 ‘Who?’
- b. A: *Kisi=ne* *khaansa* *tha.*  
 Someone.OBL=ERG cough was.  
 ‘Someone coughed.’  
 B:  $\{ \text{*Kaun} \quad | \text{kis=ne} \} ?$   
 $\{ \text{*who.NOM} \quad | \text{who.OBL=ERG} \} ?$   
 ‘Who?’
- (37) a. *Koi* *khaansa* *tha* *lekin* *mujhe* *nazar*  
 Someone.NOM coughed was but I.OBL.DAT sight  
*nahi* *aaya*  $\{ \text{kaun} \quad | \text{*kis=ne} \}$   
 not come  $\{ \text{who.NOM} \quad | \text{*who.OBL=ERG} \}$   
 ‘Someone coughed but I didn’t see who.’
- b. *Kisi=ne* *khaansa* *tha* *lekin* *mujhe* *nazar*  
 Someone.OBL=ERG coughed was but I.OBL.DAT sight

*nahi aaya* { \**kaun* | *kis=ne* }  
 not come { \*who.NOM | who.OBL=ERG }  
 ‘Someone coughed but I didn’t see who.’

- (38) a. A: *Mustafa khaansa tha.*  
 Mustafa.NOM coughed did  
 ‘Mustafa coughed.’  
 B: *Aur { kaun | \*kis=ne } ?*  
 And { who.NOM | \*who.OBL=ERG } ?  
 ‘Who else?’
- b. A: *Mustafa=ne khaansa tha.*  
 Mustafa.OBL=ERG coughed was.  
 ‘Mustafa coughed.’  
 B: *Aur { \*kaun | kis=ne } ?*  
 And { \*who.NOM | who.OBL=ERG } ?  
 ‘Who else?’
- (39) a. *Mustafa khaansa tha lekin mujhe pata nahi aur*  
 Mustafa.NOM coughed was but I.OBL.DAT know not and  
 { *kaun* | \**kis=ne* }  
 { who.NOM | \*who.OBL=ERG }  
 ‘Mustafa coughed but I don’t know who else.’
- b. *Mustafa=ne khaansa tha lekin mujhe pata*  
 Mustafa.OBL=ERG coughed was but I.OBL.DAT know  
*nahi { \*kaun | kis=ne }*  
 not { \*who.NOM | who.OBL=ERG }  
 ‘Mustafa coughed but I don’t know who else.’
- (40) a. A: *Har larka eik kamre=mein khaansa.*  
 Every boy.NOM one room.OBL=LOC coughed  
 ‘Every boy coughed in a room.’

B: { *Kaunsa larka* | *\*kaunse larke=ne* }  
 { Which boy.NOM | *\*which.OBL boy.OBL=ERG* }  
*kaunse kamre=mein?*  
 which.OBL room.OBL=LOC  
 ‘Which boy in which room?’

b. A: *Har larke=ne eik kamre=mein khaansa.*  
 Every boy.OBL=ERG one room.OBL=LOC coughed.  
 ‘Every boy coughed in a room.’

B: { *\*Kaunsa larka* | *kaunse larke=ne* }  
 { *\*Which boy.NOM* | *which.OBL boy.OBL=ERG* }  
*kaunse kamre=mein?*  
 which.OBL room.OBL=LOC  
 ‘Which boy in which room?’

(41) a. *Har larka eik kamre=mein khaansa lekin*  
 Every boy.NOM one girl.OBL=LOC coughed but  
*mujhe yaad nahi { kaunsa larka |*  
 I.OBL.DAT remember not { which boy.NOM |  
*\*kaunse larke=ne } kaunse kamre=mein.*  
*\*which.OBL boy.OBL=ERG } which.OBL room.OBL=LOC*  
 ‘Every boy coughed in a room but I don’t remember which boy in which room.’

b. *Har larke=ne eik kamre=mein khaansa lekin*  
 Every boy.OBL=ERG one room.OBL=LOC coughed but  
*mujhe yaad nahi { \*kaunsa larka |*  
 I.OBL.DAT remember not { *\*which boy.NOM* |  
*kaunse larke=ne } kaunse kamre=mein.*  
 which.OBL boy.OBL=ERG } which.OBL room.OBL=LOC  
 ‘Every boy coughed in a room but I don’t remember which boy in which room.’

This is expected under the hybrid approach, as semantic identity is not satisfied in sluices with ERG-NOM mismatch due to the different semantic contributions of the two Cases.

## 5.2 Ergative-Dative (ERG-DAT)

Subjects of infinitive *be* clauses can take either ergative or dative Case (42) (Butt & King, 2004).

- (42) { *Sana=ne* | *Sana=ko* } *parhai karni he.*  
 { Sana.OBL=ERG | Sana.OBL=DAT } study do is.  
 ‘Sana has to study.’

Following from Butt and King’s (2004) analysis (§5.1), ergative Case should have a semantic contribution when used in this environment as it is not obligatory. According to Bashir (1999), on which the analysis is based, use of ergative Case in this environment indicates that the subject has a certain amount of agency. Keeping with this, Butt and King divide the ERG-DAT semantic contribution as “wants to-must do.” However, the division is not this clear-cut. Butt and King, themselves, go on to comment that dative Case in this environment is unmarked and the dative subject may or may not have control over the action. Davison (2015) claims the opposite: dative Case is consistent with non-volitionality whereas ergative Case is interpretable either way. Regardless of the correct semantic contributions of each of these Cases, it is clear that the ERG-DAT alternation cannot be straightforwardly categorised as “wants to-must do,” as there is overlap in meaning. Moreover, the distinction may be more or less rigid for different speakers. My own judgement is that there is no significant difference between the semantic information of these Case markers in the given environment.

The prediction, then, is that ERG-DAT Case-mismatching in sluicing should be acceptable for speakers who do not associate mutually exclusive semantic contributions with each of the Cases. Acceptable mismatching is shown in (43 – 48).

- (43) A: { *Kisi=ne* | *kisi=ko* } *school jaana he.*  
 { Someone.OBL=ERG | someone.OBL=DAT } school.OBL.LOC go is.  
 ‘Someone has to go to school.’  
 B: { *Kis=ne* | *kis=ko* | *kissey* } ?  
 { who.OBL=ERG | who.OBL=DAT | who.OBL.DAT } ?  
 ‘Who?’

- (44) { *Kisi=ne* | *kisi=ko* } *school* *jaana he*  
 { Someone.OBL=ERG | someone.OBL=DAT } school.OBL.LOC go is  
*lekin mujhe pata nahi { kis=ne | kis=ko |*  
 but IOBL.DAT know not { who.OBL=ERG | who.OBL=DAT |  
*kissey }*  
 who.OBL.DAT }  
 ‘Someone has to go to school but I don’t know who.’
- (45) A: { *Aasiyah=ne* | *Aasiyah=ko* } *school* *jaana he.*  
 { Aasiyah.OBL=ERG | Aasiyah.OBL=DAT } school.OBL.LOC go is.  
 ‘Aasiyah has to go to school.’  
 B: *Aur { kis=ne | kis=ko | kissey } ?*  
 And { who.OBL=ERG | who.OBL=DAT | who.OBL.DAT } ?  
 ‘Who else?’
- (46) { *Aasiyah=ne* | *Aasiyah=ko* } *school* *jaana he*  
 { Aasiyah.OBL=ERG | Aasiyah.OBL=DAT } school.OBL.LOC go is  
*lekin mujhe pata nahi aur { kis=ne | kis=ko |*  
 but IOBL.DAT know not and { who.OBL=ERG | who.OBL=DAT |  
*kissey }*  
 who.OBL.DAT }  
 ‘Aasiyah has to go to school but I don’t know who else.’
- (47) A: *Har { bachey=ne | bachey=ko } kisi school*  
 Every { child.OBL=ERG | child.OBL=DAT } some school.OBL.LOC  
*jaana he.*  
 go is.  
 ‘Every child has to go to some school.’  
 B: { *Kis=ne | kis=ko | kissey }* *kaunse*  
 { Who.OBL=ERG | who.OBL=DAT | who.OBL.DAT } which.OBL  
*school?*  
 school.OBL.LOC  
 ‘Which child which school?’



- (48) *Har { bachey=ne | bachey=ko } kisi school*  
 Every { child.OBL=ERG | child.OBL=DAT } some school.OBL.LOC  
*jaana he lekin mujhe pata nahi { kis bachey=ne |*  
 go is but I.OBL.DAT know not { which.OBL child.OBL=ERG |  
*kis bachey=ko | kissey } kaunse*  
 which.OBL child.OBL=DAT | who.OBL.DAT } which.OBL  
*school.*  
 school.OBL.LOC

‘Every child has to go to some school but I don’t know which child which school.’

There are some factors which can improve the acceptability of the mismatch. Firstly, use of dative morphology in the remnant (*kissey*) rather than the overt dative Case marker (*ko*) improves the mismatch significantly, making it undeniably acceptable. Secondly, the predicate embedding the sluice seems to have some effect on acceptability (although I have yet to find a predicate which disallows the mismatch entirely). Mismatching with simplex verbs is straightforward (49). Mismatching with complex N-V or V-V predicates is borderline acceptable, but improves significantly by using dative morphology in the remnant or by placing focus markers on the correlate and elsewhere in the antecedent (50). I only give examples of embedded merger sluicing below, but the same pattern holds for the other types of sluicing.

- (49) a. *{ Kisi=ne | kisi=ko } school jaana*  
 { Someone.OBL=ERG | someone.OBL=DAT } school.OBL.LOC go  
*he lekin mujhe maaloom nahi keh*  
 is but I.OBL.DAT know not that  
*{ kis=ne | kis=ko | kissey }*  
 { who.OBL=ERG | who.OBL=DAT | who.OBL.DAT }  
 ‘Someone has to go to school but I don’t know who.’
- b. *{ Kisi=ne | kisi=ko } school jaana*  
 { Someone.OBL=ERG | someone.OBL=DAT } school.OBL.LOC go  
*he lekin unho=ne bathaya nahi keh { kis=ne |*  
 is but she.OBL=ERG told not that { who.OBL=ERG |  
*kis=ko | kissey }*  
 who.OBL=DAT | who.OBL.DAT }  
 ‘Someone has to go to school but he/she didn’t tell who.’

- c. *Mujhe pata he keh { kisi=ne |*  
 I.OBL.DAT know is that { someone.OBL=ERG |  
*kisi=ko } school jaana he lekin*  
 someone.OBL=DAT } school.OBL.LOC go is but  
*mujhe yaad nahi keh { kis=ne |*  
 I.OBL.DAT remember not that { who.OBL=ERG |  
*kis=ko | kissey }*  
 who.OBL=DAT | who.OBL.DAT }  
 ‘I know that someone has to go to school but I don’t remember who.’

- d. *Amma batha-rahi thiin keh { kisi=ne |*  
 Amma.NOM tell-PROG was that { someone.OBL=ERG |  
*kisi=ko } school jaana he lekin*  
 someone.OBL=DAT } school.OBL.LOC go is but  
*mein=ne suna nahi keh { kis=ne |*  
 I.OBL=ERG heard not that { who.OBL=ERG |  
*kis=ko | kissey }*  
 who.OBL=DAT | who.OBL.DAT }  
 ‘Mom was saying that someone has to go to school but I didn’t hear who.’

- (50) a. *{ Kisi=ne | kisi=ko } to school*  
 { Someone.OBL=ERG | someone.OBL=DAT } FOC school.OBL.LOC  
*jaana he lekin abhi=tak bathaya nahi gya keh*  
 go is but now.OBL=LOC told not went that  
*{ kis ne | kis ko | kissey }*  
 { who-ERG | who-DAT | who-DAT }  
 ‘Someone has to go to school for sure but it hasn’t yet been told who.’

- b. *{ Kisi=ne | kisi=ko } to school*  
 { Someone.OBL=ERG | someone.OBL=DAT } FOC school.OBL.LOC  
*jaana he lekin mujhe koi faraq nahi parh- raha keh*  
 go is but I.OBL.DAT some effect not hit-PROG that

{ *kis=ne* | *kis=ko* | *kissey* }  
 { who.OBL=ERG | who.OBL=DAT | who.OBL.DAT }  
 ‘Someone has to go to school for sure but it has no effect who.’

- c. { *Kisi=ne* | *kisi=ko* } **to** *school*  
 { Someone.OBL=ERG | someone.OBL=DAT } **FOC** *school.OBL.LOC*  
*jaana hi ho ga lekin dekha jaaey keh* { *kis=ne* |  
 go **FOC** is will but see go that { who.OBL=ERG |  
*kis=ko* | *kissey* }  
 who.OBL=DAT | who.OBL.DAT }  
 ‘Someone has to go to school for sure but we’ll see who.’

- d. { *Kisi=ne* | *kisi=ko* } **to** *school*  
 { Someone.OBL=ERG | someone.OBL=DAT } **FOC** *school.OBL.LOC*  
*jaana hi he lekin abhi fesla nahi kya keh*  
 go **FOC** is but now decision not did that  
 { *kis=ne* | *kis=ko* | *kissey* }  
 { who.OBL=ERG | who.OBL=DAT | who.OBL.DAT }  
 ‘Someone has to go to school for sure but it hasn’t been decided yet who.’

On the other hand, mismatching can be made worse, in fact, entirely unacceptable, by making the semantic information of the Case markers more prominent. Similar to ERG-NOM, this is done by using a modifier to force the semantic contribution of the Case into play. In (51a), the adverb *zabardasti* (*unwillingly*) clashes with the “wants to” interpretation of ergative Case, and therefore, dative Case is preferred. Mismatching in sluicing becomes unacceptable under these conditions. In (51b), the correlate has dative Case which is fully compatible with *zabardasti*. Ergative Case on the remnant in this example is ungrammatical. This is expected as intensifying the semantic contribution of the Case results in semantic identity being violated, and therefore, sluicing should be disallowed here, as is the case.

- (51) a. { <sup>?</sup>*Kisi=ne* | *kisi=ko* } *zabardasti* *school*  
 { <sup>?</sup>Someone.OBL=ERG | someone.OBL=DAT } *unwillingly* *school.OBL.LOC*  
*jaana he.*  
 go is.  
 ‘Someone has to go to school unwillingly.’

- b. *Kisi=ko*                      *zabardasti*    *school*                      *jaana*    *he*  
 Someone.OBL=DAT    unwillingly    school.OBL.LOC    go    is  
*lekin mujhe*                      *pata nahi*    (*keh*)    { \**kis=ne*                      |  
 but I.OBL.DAT                      know not    (that)    { \*who.OBL=ERG                      |  
*kis=ko* }  
 who.OBL=DAT }
- ‘Someone has to go to school unwillingly but I don’t know who.’

Therefore, Case-mismatching is allowed between this alternation, as long as the semantic information of the two can overlap in the given sentence.

### 5.3 Nominative-Accusative (NOM-ACC)

Urdu shows robust differential object marking (DOM), resulting in NOM-ACC alternation on direct objects (52). This alternation has been attributed to two main factors in the literature: animacy and specificity.

- (52) *Us=ne*                      { *seb*                      | *seb=ko* }                      *khaya.*  
 He/she.OBL=ERG                      { apple.NOM    | apple.OBL=ACC }                      ate.  
 ‘He/she ate an apple.’

Butt (1993b) shows that accusative marked NPs receive only a specific interpretation. She gives the example in (53) to illustrate this. (53a) provides a context which is compatible only with a non-specific interpretation. Use of accusative Case is infelicitous (53c), thus, showing it has an interpretation of specificity.

- (53) a. *Adnan*                      *aaj*    *raat=ke*                      *saalan=ke*                      *liye*  
 Adnan.NOM    today    night.OBL=GEN                      curry.OBL=GEN                      for  
*murgha*                      *chahtha*                      *tha.*  
 chicken.NOM    want                      was.  
 ‘Adnan wanted chicken for tonight’s curry.’
- b. *Us=ke*                      *khaansame=ne*                      *bazaar=se*                      *murghi*  
 He.OBL=GEN    cook.OBL=ERG                      market.OBL=INS                      chicken.NOM  
*kharidi.*

bought.

‘His cook bought a chicken from the market.’

- c. # Us=ke                      khaansame=ne                      bazaar=se  
 # He.OBL=GEN                      cook.OBL=ERG                      marker.OBL=INS  
 murgha=ko                      kharida.  
 chicken.OBL.ACC                      bought.

‘His cook bought a particular chicken from the market.’

(Butt, 1993b)

On the other hand, Davison (2015) considers accusative Case to be obligatory on animate objects and optional on animate objects (54). Butt (1993b) also makes note of this pattern, however, points out that within the class of objects labelled ‘animate’, it is unclear as to what the criteria of animacy is exactly, beyond that fact that proper nouns are always ‘animate’. Conversely, using a proper noun in the same sentence makes the non-accusative version ungrammatical (55b). This, of course, falls within Butt’s specificity distinction, as proper nouns are always specific. Butt, therefore, concludes that accusative Case is obligatory on proper nouns and pronouns, and optional otherwise. In line with Butt, I consider specificity, rather than animacy, to be the main factor conditioning DOM in Urdu.

- (54) a. *Sahl=ne*                      { \**Saad*                      | *Saad=ko* }                      *dekha*.  
           Sahl.OBL=ERG { \*Saad.NOM                      | Saad.OBL=ACC }                      saw.  
           ‘Sahl saw Saad.’
- b. *Sahl=ne*                      { *ghar*                      | *ghar=ko* }                      *dekha*.  
           Sahl.OBL=ERG { house.NOM                      | house.OBL=ACC }                      saw.  
           ‘Sahl saw the house.’

While accusative Case always gives rise to specific interpretations, nominative Case may be compatible with both specific and non-specific interpretations (Butt, 1993b). Dayal (2003) shows that nominative NPs in Urdu can refer to contextually available antecedents, giving rise to a specific interpretation. This is demonstrated in (55). The context supports a specific interpretation of *guriya* (*doll*), i.e. the doll under discussion. Although there is a preference to use accusative Case (55b), nominative Case is also acceptable (55a).

(55) Context: Maariyah is telling her friends about her new doll which she then had to give away. Her friends are discussing whether or not they saw the doll before she gave it away. One of her friends says,

a. *Mein=ne guriya dekhi thi.*  
 I.OBL=ERG doll.NOM saw was.  
 ‘I saw the doll.’

b. *Mein=ne guriya=ko dekha tha.*  
 I.OBL=ERG doll.OBL=ACC saw was.  
 ‘I saw the doll.’

In accordance with this, the contextually salient antecedent in sluicing should give rise to specific interpretations of nominative remnants, creating an overlap in the semantic information of the two Cases. Case-mismatching is thus predicted to be acceptable. This is most clearly seen in ‘which-NP’ type sluices as they directly inquire about a specific object. Once again, grammatical Case-mismatching is found to be acceptable.

Mismatching from accusative Case on the correlate to nominative Case on the remnant (56a) is significantly better than the opposite (56b). This also holds with complex predicates (57).

(56) a. *Us=ne kisi khelonay=ko tora lekin mein=ne*  
 He/she.OBL=ERG some.OBL toy.OBL=ACC broke but I.OBL=ERG  
*dekha nahi { kaunse khelonay=ko | kaunsa khelona }*  
 saw not { which.OBL toy.OBL=ACC | which toy.NOM }  
 ‘He/she broke some toy but I didn’t see which toy.’

b. *Us=ne koi khelona tora lekin mein=ne*  
 He/she.OBL=ERG some toy.NOM broke but I.OBL=ERG  
*dekha nahi { ?kaunse khelonay=ko | kaunsa khelona }*  
 saw not { ?which.OBL toy.OBL=ACC | which toy.NOM }  
 ‘He/she broke some toy but I didn’t see which toy.’

(57) a. *Us=ne kisi khelonay=ko tora lekin koi*  
 He/she.OBL=ERG some.OBL toy.OBL=ACC broke but some  
*faraq nahi parh- raha keh { kaunse khelonay=ko |*  
 effect not hit-PROG that { which.OBL toy.OBL=ACC |

*kaunsa khelona }*  
 which toy.NOM }

‘He/she broke some toy but it doesn’t matter which toy.’

- b. *Us=ne koi khelona tora lekin koi faraq*  
 He/she.OBL=ERG some toy.NOM broke but some effect  
*nahi parh-rah keh {<sup>?</sup>kaunse khelonay=ko | kaunsa*  
 not hit-PROG that {<sup>?</sup>which.OBL toy.OBL=ACC | which  
*khelona }*  
 toy.NOM }

‘He/she broke some toy but it doesn’t matter which toy.’

The acceptability of mismatching from a nominative correlate to an accusative remnant improves with the correlate in the frame ‘*some one NP*’ (58). Presumably, this makes the specific interpretation of nominative Case more salient.

- (58) *Us=ne koi eik khelona tora lekin mein=ne*  
 He/she.OBL=ERG some one toy.NOM broke but I.OBL=ERG  
*dekha nahi { kaunse khelonay=ko | kaunsa khelona }*  
 saw not { which.OBL toy.OBL=ACC | which toy.NOM }
- ‘He/she broke a certain toy but I didn’t see which toy.’

Furthermore, introducing focus markers improves mismatching, as in a subset of ERG-DAT mismatches (59 – 64).<sup>3</sup>

- (59) *Us=ne koi khelona **to** tora **hi** tha lekin*  
 He/she.OBL=ERG some toy.NOM **FOC** broke **FOC** was but  
*mein=ne dekha nahi { kaunse khelonay=ko | kaunsa khelona }*  
 I.OBL=ERG saw not { which.OBL toy.OBL=ACC | which toy.NOM }
- ‘He/she broke some toy for sure but I didn’t see which toy.’

- (60) A: *Us=ne { kisi khelonay=ko | koi khelona }*  
 He/she.OBL=ERG { some.OBL toy.OBL=ACC | some toy.NOM }

<sup>3</sup> In the following examples, the verb agrees with the nominative form of the correlate. Agreement would default to third person, masculine, singular in the versions with the accusative form of the correlate.

*to tora hi ho ga.*  
**FOC** broke **FOC** be will.  
 ‘He/she broke some toy for sure.’

B: { *Kaunse khelonay=ko | kaunsa khelona* } ?  
 { Which.OBL toy.OBL=ACC | which toy.NOM } ?  
 ‘Which toy?’

(61) A: *Us=ne { guriya=ko | guriya } to tori*  
 He/she.OBL=ERG { doll.OBL=ACC | doll.NOM } **FOC** broke  
*hi ho gi.*  
**FOC** is will.  
 ‘He/she broke the doll for sure.’

B: *Aur { kaunse khelonay=ko | kaunsa khelona }*  
 And { which.OBL toy.OBL=ACC | which toy.NOM }  
 ‘Which other toy?’

(62) *Us=ne { guriya=ko | guriya } to tori hi ho*  
 He/she.OBL=ERG { doll.OBL=ACC | doll.NOM } **FOC** broke **FOC** is  
*gi lekin mein=ne dekha nahi aur { kaunse khelonay=ko |*  
 will but I.OBL=ERG saw not and { which.OBL toy.OBL=ACC |  
*kaunsa khelona }*  
 which toy.NOM }  
 ‘He/she broke the doll for sure but I didn’t see which other toy.’

(63) A: *Har larke=ne { kisi khelonay=ko | koi khelona }*  
 Every boy.OBL=ERG { some.OBL toy.OBL=ACC | some toy.NOM }  
*to tora hi ho ga.*  
**FOC** broke **FOC** is will.  
 ‘Every boy broke some toy for sure.’

B: *Kaunse larke=ne { kaunse khelonay=ko | kaunsa*  
 Which.OBL boy.OBL=ERG { which.OBL toy.OBL=ACC | which  
*khelona } ?*  
 toy.NOM } ?



‘Which boy which toy?’

- (64) *Har larke=ne { kisi khelonay=ko | koi khelona } to*  
 Every boy.OBL=ERG { some.OBL toy.OBL=ACC | some toy.NOM } **FOC**  
*tora hi tha lekin mein=ne dekha nahi keh kaunse*  
 broke **FOC** was but I.OBL=ERG saw not that which.OBL  
*larke=ne { kaunse khelonay=ko | kaunsa khelona }*  
 boy.OBL=ERG { which.OBL toy.OBL=ACC | which toy.NOM }  
 ‘Every boy broke some toy for sure but I didn’t see which boy which toy.’

Grammatical Case-mismatching with this alternation has also been discussed in Bagasur (2014) (although they take animacy to be the main factor conditioning DOM). Bagasur also note that mismatching in the ACC-NOM direction is better than the NOM-ACC direction, although they generalise this to mismatching from nominative to all non-nominative Cases (see §7). Therefore, this alternation allows grammatical Case-mismatching in sluicing, although with a slight asymmetry.

#### 5.4 *Accusative-Instrumental (ACC-INS)*

The ACC-INS alternation is seen on the causee agent of a small subset of causative verbs (65) (Saksena, 1982; Butt & King, 2004).

- (65) *Khala=ne { Aasiyah=ko | Aasiyah=se } kahani*  
 Aunt.OBL=ERG { Aasiyah.OBL=ACC | Aasiyah.OBL=INS } story.NOM  
*parhvai.*  
 read.CAUS  
 ‘Aunt made/had Aasiyah read the story.’

The two Cases here contribute very different semantic information. Saksena (1982) discusses this contrast in depth. She shows that accusative and instrumental Cases are mostly found in complementary distribution on causee agents and can be predicted semantically. Verbs whose agents are also the target of the action (e.g. *drink, learn, jump*) select accusative Case (66a), whereas verbs whose agents are not the target for the action (e.g. *tear, ask, open*) select instrumental Case (66b). Thus, accusative-marked agents are interpreted somewhat as patients, whereas instrumental-marked agents are incompatible with such an interpretation.

- (66) a. *Usthani=ne* { *bachon=ko* | *\*bachon=se* } *sabaq*  
 Teacher.OBL=ERG { children.OBL=ACC | \*children.OBL=INS } lesson  
*sikhaya.*  
 learn.CAUS  
 ‘The teacher taught the children the lesson.’
- b. *Nana=ne* { *\*Omar=ko* | *Omar=se* } *darvaza*  
 Grandad.OBL=ERG { \*Omar.OBL=ACC | Omar.OBL=INS } door  
*khulvaya.*  
 open.CAUS  
 ‘Grandad made Omar open the door.’

Saksena also gives evidence from Case-marking on addressees of verbs-of-saying. Some verbs-of-saying license only accusative Case (67a). These verbs indicate one-way communication; thus, the accusative-marked addressee is simply the recipient. Other verbs license only instrumental Case (67b). These denote a two-way communication, in which the instrumental-marked addressee is an active participant in the conversation.

- (67) a. *Mein=ne* { *Raam=ko* | *\*Raam=se* } *yeh bataya.*  
 I.OBL=ERG { Raam.OBL=ACC | \*Raam.OBL=INS } this told.  
 ‘I told Raam this.’ (Saksena, 1982)
- b. *Mein=ne* { *\*Raam=ko* | *Raam=se* } *baat kari.*  
 I.OBL=ERG { \*Raam.OBL=ACC | Raam.OBL=INS } talk did.  
 ‘I talked to Raam.’ (Saksena, 1982)

To summarise, accusative-marked agents are almost passive participants in the action, whereas, instrumental-marked agents are active participants with a certain amount of control over the action (Butt, 2017).

Returning to the ACC-INS alternation (68), Saksena argues that the alternation is used to signal semantic contrast. When the agent carries accusative Case, the objective of the action is interpreted as completion of the activity *by the agent*. This is expected as the agent is the target of the action. Conversely, when the agent carries instrumental Case, the objective is simply the completion of the activity – the agent is not the target of the action, and is in some ways, merely an instrument in the culmination of the activity.

- (68) *Mami=ne*                    { *Mamoo=ko*                    | *Mamoo=se* }                    *khaana*  
 Aunt.OBL=ERG                { Uncle.OBL=ACC                | Uncle.OBL=INS }                food.NOM  
*chakhvaya.*  
 taste.CAUS  
 ‘Aunt made Uncle taste the food.’

Considering the distinctly different semantic contributions of the two Cases, it is predicted that this alternation will not induce Case-mismatching in any type of sluicing. This is indeed the case (69 – 74).

- (69) a. A: *Mami=ne*                    *kisi=ko*                    *khaana*                    *chakhvaya.*  
 Aunt.OBL=ERG                someone.OBL=ACC                food.NOM                taste.CAUS  
 ‘Aunt made someone taste the food.’  
 B: { *Kis=ko*                    | *\*kis=se* } ?  
 { Who.OBL=ACC                | *\*who.OBL=INS* }  
 ‘Who?’
- b. A: *Mami=ne*                    *kisi=se*                    *khaana*                    *chakhvaya.*  
 Aunt.OBL=ERG                someone.OBL=INS                food.NOM                taste.CAUS  
 ‘Aunt made someone taste the food.’  
 B: { *\*Kis=ko*                    | *kis=se* }  
 { *\*Who.OBL=ACC*                | *who.OBL=INS* } ?  
 ‘Who?’
- (70) a. *Mami=ne*                    *kisi=ko*                    *khaana*                    *chakhvaya*  
 Aunt.OBL=ERG                someone.OBL=ACC                food.NOM                taste.CAUS  
*lekin mujhe pata nahi* { *kis=ko*                    | *\*kis=se* }  
 but I.OBL.DAT know not { *who.OBL=ACC*                | *\*who.OBL=INS* }  
 ‘Aunt made someone taste the food but I don’t know who.’
- b. *Mami=ne*                    *kisi=se*                    *khaana*                    *chakhvaya*  
 Aunt.OBL=ERG                someone.OBL=INS                food.NOM                taste.CAUS  
*lekin mujhe pata nahi* { *\*kis=ko*                    | *kis=se* }  
 but I.OBL.DAT know not { *\*who.OBL=ACC*                | *who.OBL=INS* }  
 ‘Aunt made someone taste the food but I don’t know who.’

- (71) a. A: *Mami=ne*                      *Mamoo=ko*                      *khaana*                      *chakhvaya.*  
 Aunt.OBL=ERG                      Uncle.OBL=ACC                      food.NOM                      taste.CAUS  
 ‘Aunt made Uncle taste the food.’  
 B: *Aur*    { *kis=ko*                      | *\*kis=se* } ?  
 And    { who.OBL=ACC                      | *\*who.OBL=INS* } ?  
 ‘Who else?’
- b. A: *Mami=ne*                      *Mamoo=se*                      *khaana*                      *chakhvaya.*  
 Aunt.OBL=ERG                      Uncle.OBL=INS                      food.NOM                      taste.CAUS  
 ‘Aunt made Uncle taste the food.’  
 B: *Aur*    { *\*kis=ko*                      | *kis=se* } ?  
 And    { *\*who.OBL=ACC*                      | *who.OBL=INS* } ?  
 ‘Who else?’
- (72) a. *Mami=ne*                      *Mamoo=ko*                      *khaana*                      *chakhvaya*  
 Aunt.OBL=ERG                      Uncle.OBL=ACC                      food.NOM                      taste.CAUS  
*lekin mujhe*                      *pata nahi aur*                      { *kis=ko*                      |  
 but I.OBL.DAT                      know not and                      { who.OBL=ACC                      |  
*\*kis=se* }  
*\*who.OBL=INS* }  
 ‘Aunt made Uncle taste the food but I don’t know who else.’
- b. *Mami=ne*                      *Mamoo=se*                      *khaana*                      *chakhvaya*  
 Aunt.OBL=ERG                      Uncle.OBL=INS                      food.NOM                      taste.CAUS  
*lekin mujhe*                      *pata nahi aur*                      { *\*kis=ko*                      |  
 but I.OBL.DAT                      know not and                      { *\*who.OBL=ACC*                      |  
*kis=se* }  
*who.OBL=INS* }  
 ‘Aunt made Uncle taste the food but I don’t know who else.’
- (73) a. A: *Har aurat=ne*                      *kisi*                      *mard=ko*  
 Every woman.OBL=ERG                      some.OBL                      man.OBL=ACC  
*khaana*                      *chakhvaya.*

food.NOM taste.CAUS

‘Every woman made some man taste the food.’

- B: *Kis aurat=ne { kis mard=ko |*  
 Which.OBL woman.OBL=ERG { which.OBL man.OBL=ACC |  
*\*kis mard=se } ?*  
*\*which.OBL man.OBL=INS } ?*  
 ‘Which woman which man?’

- b. A: *Har aurat=ne kisi mard=se khaana*  
 Every woman.OBL=ERG some.OBL man.OBL=INS food.NOM  
*chakhvaya.*

taste.CAUS

‘Every woman made some man taste the food.’

- B: *Kis aurat=ne { \*kis mard=ko |*  
 Which.OBL woman.OBL=ERG { \*which.OBL man.OBL=ACC |  
*kis mard=se } ?*  
*which.OBL man.OBL=INS } ?*  
 ‘Which woman which man?’

- (74) a. *Har aurat=ne kisi mard=ko khaana*  
 Every woman.OBL=ERG some.OBL man.OBL=ACC food.NOM  
*chakhvaya lekin mujhe pata nahi kis*  
 taste.CAUS but I.OBL.DAT know not which.OBL  
*aurat=ne { kis mard=ko | \*kis*  
 woman.OBL=ERG { which.OBL man.OBL=ACC | \*which.OBL  
*mard=se }*  
 man.OBL=INS } ?

‘Every woman made some man taste the food but I don’t know which woman which man.’

- b. *Har aurat=ne kisi mard=se khaana*  
 Every woman.OBL=ERG some.OBL man.OBL=INS food.NOM  
*chakhvaya lekin mujhe pata nahi kis*  
 taste.CAUS but I.OBL.DAT know not which.OBL

*aurat=ne*                    { \**kis*                    *mard=ko*            | *kis*  
 woman.OBL=ERG            { \*which.OBL man.OBL=ACC | which.OBL  
*mard=se* }  
 man.OBL=INS } ?  
 ‘Every woman made some man taste the food but I don’t know which woman  
 which man.’

Once again, a difference in semantic information due to the alternation prevents Case-mismatching in sluicing.

### 5.5 Summary

Out of the four pairs of Case alternations, only two allow mismatching under sluicing (75).

(75) *Table 3: Case-mismatching summary*

Case Alternation Pair	Case-Mismatching
ERG-NOM	×
ERG-DAT	✓
NOM-ACC	✓
ACC-INS	×

Case-mismatching is allowed only where the semantic contribution of the Case on the remnant interpreted as being the same as that of the Case on the correlate. ERG-NOM and ACC-INS alternations have distinctly different semantic content, and therefore, disallow mismatching. The distinction between the contribution of the ERG-DAT pair is not as rigid and allows Case-mismatching. Similarly, NOM-ACC Cases have an overlap in their semantic information, and also allow mismatching, although mismatching from ACC to NOM is preferred than the other way around. Given that the acceptability of Case-mismatching is so strongly rooted in the semantic contributions of the Cases, a significant amount of speaker variation is expected, depending on how fixed the semantic content of each Case is for different speakers.

## 6. An Analysis using FIT

From the data and discussion in §5, we see not just that Case-mismatching is allowed in Urdu sluicing, but also that it is highly constrained. There are two constraints on the kind of mismatching shown in §5:

- a) The verb in the antecedent (and the sluice) licenses both the Cases found on the correlate and the remnant.
- b) The Case-marking on the correlate and remnant has the same overall meaning.

Purely semantic accounts of sluicing postulate a mechanism such as Case-copying in which Case is simply copied from the correlate to the remnant (Culicover & Jackendoff, 2005). Such a mechanism would not predict nor be able to explain the Case-mismatching without arbitrary stipulations. Moreover, these accounts would not be able to capture the generalisation regarding Case-licensing by the verb as this is contingent on the presence of syntactic structure in the E-site. Therefore, we must discard approaches with no syntax.

Purely syntactic accounts of sluicing are able to capture the first restriction easily as there is structure in the E-site and it is identical to the antecedent under syntactic identity. It follows naturally from this that the Case of the remnant must at least be licensed by the verb in the antecedent for mismatching to be possible, as the same verb is found in the sluice. The problem here is that such approaches do not cover the constraint on the semantic contributions of the two Cases, consequently predicting that all four of the Case alternation pairs should give rise to grammatical Case-mismatching in sluicing. However, as seen in §5, the mismatching is extremely sensitive to the meaning of the Cases. Thus, syntactic identity predicts more Case-mismatching than is found.

The hybrid approach has the upper hand because it is able to account for both constraints. The first restriction follows from the presence of syntactic structure in the E-site, while the second restriction follows from the semantic identity condition. This predicts exactly what we find in Urdu sluicing: Case-mismatching is allowed between pairs licensed by the same verb as long as the semantic content of the antecedent and the sluice is the same. Why then do we need FIT?

As mentioned earlier, the availability of paraphrased sources leaves Case connectivity unaccounted for. A straightforward example comes from synonymous verbs that assign different Cases. Consider the example in (76). The verbs *pata* and *jaantha* are synonymous in the context of these sentences, both meaning *know*. *Pata* assigns dative Case to its subject

(76a), while *jaantha* assigns nominative Case (76b). Under the hybrid approach, synonymous verbs should be interchangeable in the pre-slucice, regardless of which verb is found in the antecedent. However, this results in ungrammatical Case-mismatching (76d). The hybrid account, as it stands currently, would not be able to predict the ungrammaticality of such sentences.

- (76) a. *Mujhe pata he keh Omar aa-raha he.*  
 I.OBL.DAT know is that Omar.NOM come-PROG is.  
 ‘I know that Omar is coming.’
- b. *Mein jaanthi hun keh Omar aa-raha he.*  
 I.NOM know is that Omar.NOM come-PROG is.  
 ‘I know that Omar is coming.’
- c. *Kisi=ko pata he keh Omar aa-raha he*  
 Someone.OBL=DAT know is that Omar.NOM come-PROG is  
*lekin mujhe nahi yaad kis=ko < maloom*  
 but I.OBL.DAT not remember who.OBL=DAT < know  
*he keh Omar aa-raha he >*  
 is that Omar.NOM come-PROG is >  
 ‘Someone knows that Omar is coming but I don’t remember who < knows that Omar is coming. >’
- d. *\*Kisi=ko pata he keh Omar aa-raha he*  
 \*Someone.OBL=DAT know is that Omar.NOM come-PROG is  
*lekin mujhe nahi yaad kaun < jaantha he*  
 but I.OBL.DAT not remember who.NOM < know is  
*keh Omar aa-raha he >*  
 that Omar.NOM come-PROG is >  
 ‘Someone know that Omar is coming but I don’t remember who < knows that Omar is coming. >’

FIT bridges this crucial gap in hybrid accounts. (77) is a shortened version of the condition (with parts related to sprouting omitted).



(77) Fit condition:

Modulo agreement in the antecedent and wh-movement, replacing the correlate by the remnant in the antecedent must lead to a syntactically well-formed structure with the right meaning.

(Abels, 2017)

FIT makes a number of correct predictions regarding Case connectivity. Firstly, it correctly predicts Case-matching, especially in examples such as (76c), and rules out ungrammatical versions such as (76d). Although the paraphrase with the synonymous verb in the E-site in (76d) has the same meaning as the antecedent, the nominative remnant cannot replace the correlate to form a grammatical sentence, as illustrated in (78b).

- (78) a. *Kisi=ko*                      *pata* *he* *keh* *Omar*      *aa-raha*      *he* ...  
 Someone.OBL=ACC know is that Omar.NOM come-PROG is ...  
 ‘Someone knows that Omar is coming ...’
- b. \**Kaun*                      *pata* *he* *keh* *Omar*      *aa-raha*      *he* ...  
 \*Someone.NOM know is that Omar.NOM come-PROG is ...  
 ‘Someone knows that Omar is coming ...’

Secondly, FIT allows Case-mismatching in ERG-DAT and ACC-NOM alternations because the mismatched remnant fits into the position of correlate without resulting in ungrammaticality, as the verb licenses both Cases. The Case-mismatching in these pairs also satisfies FIT’s second requirement: the meaning remains unchanged.

Finally, FIT is able to predict that ERG-NOM and ACC-INS alternations do not induce grammatical Case-mismatching in sluicing. Although these pairs satisfy the syntactic requirement of the condition (the verb licenses both Cases), they do not satisfy the meaning component of the condition.

Therefore, FIT is a necessary requirement as it allows the hybrid account to correctly predict both Case-matching and -mismatching.

## 7. FIT-ness level

Case-mismatching in Urdu sluicing has not gone completely unnoticed. In this section, I discuss Bagasur's (2014) observations of Case-mismatching in Hindi-Urdu (HU) sluicing, and the FIT-compliant analysis that they provide. In light of these facts and the ones presented in §5, I attempt to identify the level at which FIT should be applied, i.e. structure vs. surface form level, which is unspecified in the current version of the condition.

To begin with, Bagasur claim that Case-matching is the general norm in HU sluicing. They argue that mismatching from a nominative correlate to a non-nominative remnant is never allowed. However, mismatching in the opposite direction, from a non-nominative correlate to a nominative remnant is acceptable for at least some speakers. They give the example in (79). The correlate carries ergative Case; however, the remnant may have either ergative or nominative Case. (It should be kept in mind that this data is not based on Case alternations licensed by verbs.) Bagasur report this sentence as grammatical, although my own judgement is to the contrary. It is possible that speaker variation is at play here.

- (79) *Mein=ne suna keh kisi=ne Raam=ko thagaa*  
 I.OBL=ERG heard that someone.OBL=ERG Raam.OBL=ACC cheat  
*par Sita=ne nahi batayaa (keh) { kis=ne | kaun }*  
 but Sita.OBL=ERG not tell (that) { who.OBL=ERG | who.NOM }
- 'I heard that someone cheated Raam but Sita didn't say who.'

(Bagasur, 2014)

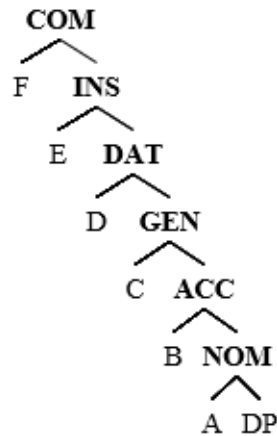
Bagasur adopt an approach under which nominative Case in HU is a subset of the other Cases. Bagasur assume that nominative DPs are bare (as opposed to having a null Case marker attached, i.e. DP vs. DP- $\emptyset$ ). The bare nominal can now "fit" into the position of the DP in the correlate, illustrated in (80). The appropriate Case marker and oblique marking are outside of this DP, resulting in the correct surface form. This satisfies the syntactic component of FIT.

- (80)  $[\text{DP } \textit{billi}] = ne \quad \leftrightarrow \quad [\text{DP } \textit{billi}] = ne$   
 $[\text{DP cat}].\text{OBL} = \text{ERG} \quad \leftrightarrow \quad [\text{DP cat.NOM}].\text{OBL} = \text{ERG}$

Bagasur's analysis is compliant with a structural representation of Case along the lines of Caha (2009). Under Caha's representation of Case, each Case consists of a bundle of features. These features have terminal nodes in the syntactic tree, making each Case a phrasal constituent over these feature nodes. Caha proposes a universal hierarchy of Case and the structure in (81),

where A-F are features. Assuming this structure, nominative Case is a subset of all other Cases, and so fits into the sub-tree for any Case-marked DP. (This is compatible with either view of nominative Case.) This provides a FIT-compliant explanation of the asymmetry in mismatching observed by Bagasur, as well as the ACC-NOM asymmetry discussed in (§5.2).

(81)



(Caha, 2009)

However, assuming a Caha-style structural representation, FIT, if applied at structural level, has the potential to massively over-generate, as any nominative remnant will trivially satisfy the syntactic requirement of FIT. It will, thus, fall onto the semantic condition of FIT to prevent widespread mismatching from all non-nominative correlates to nominative remnants. Seeing that the Case markers have different semantic contributions, semantic identity will prevent ungrammatical mismatching to a great extent. For example, ergative and nominative Case have distinct semantic information, and so mismatching will be prevented. This may account for the ungrammaticality of (79) in my dialect.

On the other hand, consider accusative and nominative Case which have an overlap in meaning. The sentence in (82) does not contain the environment which allows grammatical ACC-NOM alternation. As a result, the syntactic requirement of FIT will only be satisfied if we allow nominative Case to act as a subset of accusative Case, but not otherwise. Semantic identity is satisfied and will not prevent mismatching. Thus, applying FIT at a structural level will incorrectly predict Case-mismatching in (82) to be grammatical.

- (82) *Sana=ne Omar=ko to dekha (hi) that lekin*  
 Sana.OBL=ERG Omar.OBL=ACC (FOC) saw (FOC) that but  
*mujhe pata nahi aur { kis=ko | \*kaun }*  
 I.OBL.DAT know not and { who.OBL=ACC | \*who.NOM }
- ‘Sana saw Omar (for sure) but I don’t know who else she saw.’

It should be noted that this is an extremely small set of cases in which FIT will over-generate. The ACC-NOM alternation is only disallowed on proper nouns and pronouns and allowed on all other direct objects. Accusative Case is not found elsewhere, and nominative Case does not overlap in meaning with any other Case.

A second option is to assume a more surface-oriented version of FIT, under which FIT matches form for form rather than structure for structure. Such an approach avoids the problems of over-generation that a more structural view of FIT faces, as the surface form of nominative DPs is not a subset of the surface forms of other Case-marked DPs. Grammatical mismatching with ERG-DAT and NOM-ACC alternations is still allowed as the surface form of the remnant fits into the position of the correlate due to multiple Case-licensing by the verb. Thus, applying FIT at surface level may be marginally better than applying it to the structure, although this does not explain the asymmetry in ACC-NOM mismatching, nor Bagasur's observation (79).

## 8. Similar Case-Mismatching in Icelandic

Case-mismatching in sluicing has been observed in a number of languages. Vicente (2015) has compiled a list of some of the languages which exhibit mismatching. The list includes German, Japanese, Turkish, Korean, Chamorro, Uzbek and Mongolian. Different explanations have been given for each of these cases. Wood et al (2016) report Case connectivity facts for Icelandic which are parallel to the Urdu facts presented in this paper. However, they use these facts as evidence in favour of a purely syntactic account, while noting that hybrid accounts may also be able to account for these facts. In this section, I show that similar to Urdu, a purely syntactic account makes incorrect predictions for Icelandic, whereas a hybrid account with FIT does not. All data in this section is taken or adapted from Wood et al (2016).

Firstly, Wood et al establish that Icelandic generally shows Case matching in both sluicing (83) and fragments (84).<sup>4</sup>

- (83) a. *Jón sá einhvern en ég veit ekki { \*hver |*  
 John saw someone.ACC but I know not { \*who.NOM |  
*hvern | \*hverjum }*  
 who.ACC | \*who.DAT }

<sup>4</sup> Wood et al (2016) assume fragments to have the same wh-movement-and-deletion analysis as sluicing, as argued by Merchant (2005).

‘John saw someone, but I don’t know who.’

- b. *Einhver*                      *fór,*    *en*    *ég*    *veit*    *ekki*    { *hver*                      |  
 Someone.NOM                      left,    but    I            know    not            { who.NOM                      |  
 \**hvern*                      | \**hverjum* }  
 \*who.ACC                      | \*who.DAT }

‘Someone left, but I don’t know who.’

- (84) a. A: *Jón sá bílinn.*  
 John saw car.the.ACC  
 ‘John saw the car.’  
 B: { \**Rútan*                      | *Rútana*                      | \**Rútunni* }                      *líka*  
 { \*coach.the.NOM                      | coach.the.ACC                      | \*coach.the.DAT }                      too.  
 ‘The coach too.’
- b. A: *Höfundurinn breytti byrjuninni.*  
 Author.the changed beginning.the.DAT  
 ‘The author changed the beginning.’  
 B: { \**Endirinn*                      | \**Endinn*                      | *Endinum* }                      *líka*  
 { \*ending.the.NOM                      | \*ending.the.ACC                      | ending.the.DAT }                      too  
 ‘The ending too.’

Secondly, they show that pre-sluices with a synonymous verb to the matrix verb are not possible as they result in ungrammatical Case-mismatching. They give the verbs *vilja* and *langa*, both meaning *want*, as an example. *Vilja* licenses nominative Case on the subject (85a), and *langa* licenses accusative or dative Case on the subject (85b). In (86b), *vilja* is found in the antecedent, whereas the E-site contains *langa*. This results in the correlate having nominative Case while the remnant may have accusative or dative Case. This mismatch is ungrammatical. Wood et al point out that such cases are problematic for hybrid accounts as a semantic identity condition cannot predict the ungrammaticality of mismatches such as (86b).

- (85) a. { *Ég*                      | \**Mig*                      | \**Mér* }                      *vil*    *fara.*  
 { I.NOM                      | \*me.ACC                      | \*me.DAT }                      want    go.  
 ‘I want to go.’

- b. { \*Ég | Mig | Mér } langar að fara.  
 { \*I.NOM | me.ACC | me.DAT } wants to go.  
 ‘I want to go.’
- (86) a. A: Ég vil fara.  
 I.NOM want go.  
 ‘I want to go.’  
 B: { Ég | \*Mig | \*Mér } líka.  
 { I.NOM | \*me.ACC | \*me.DAT } too.  
 ‘Me too.’
- b. A: Ég vil fara.  
 I.NOM want go.  
 ‘I want to go.’  
 B: \*{ Mig | Mér } < langar að fara > líka.  
 \*{ Me.ACC | me.DAT } < wants to qgo > too.  
 ‘Me too.’

Wood et al then consider Case-mismatching on the basis of Case alternations licensed by the verb. They show that a difference in the semantic contributions of the two Cases disallows mismatching between the correlate and remnant (similar to the ERG-NOM and ACC-INS alternation in Urdu). For example, the verb *klóraði* (*scratch*) licenses both accusative and dative Case (87). Use of accusative Case implies that the object was affected physically, whereas use of dative Case suggests that the object benefitted from the action. Following from the difference in the semantic contribution of the two Cases, Case mismatching is not allowed (88).

- (87) *Hún klóraði { mig | mér }*  
 She scratched { me.ACC | me.DAT }  
 ‘She scratched me.’

- (88) a. A: *Hún klóraði mig.*  
 She scratched me.ACC  
 ‘She scratched me.’

B: { *Mig* | *\*Mér* } *lika*.  
 { Me.ACC | *\*me*.DAT } too.  
 ‘Me too.’

b. A: *Hún klóraði mér*.  
 She scratched me-DAT  
 ‘She scratched me.’

B: { *\*Mig* | *Mér* } *lika*.  
 { *\*Me*.ACC | me.DAT } too.  
 ‘Me too.’

However, they show that grammatical Case-mismatching in ellipsis is possible under a phenomenon called ‘Dative Substitution’, which affects verbs that assign accusative Case to their subjects. Under Dative Substitution, accusative Case on the subject can be replaced by dative Case. Wood et al note that this alternation has no semantic consequences, and subsequently, mismatching is acceptable (89).<sup>5</sup> As with the Urdu mismatches, Wood et al expect inter- and intra-speaker variation as there is a significant amount of variation in the acceptability of Dative Substitution, independent of sluicing. Based on acceptable Case-mismatching, Wood et al reject purely semantic accounts on the same grounds as I do in §6.

(89) a. A: *Mig langar að fara*.  
 Me.ACC wants to go.  
 ‘I want to go.’

B: { *Mig* | *Mér* } *lika*.  
 { Me.ACC | me.DAT } too.  
 ‘Me too.’

b. A: *Hverjum langar að fara?*  
 Who.DAT wants to go?  
 ‘Who wants to go?’

<sup>5</sup> Wood et al (2016) mostly provide Case-mismatching examples in fragments. Sluicing is expected to tolerate mismatching under Dative Substitution as well, however, Barros (p.c.) explains that judgements for the acceptability of mismatching in embedded merger sluicing were less robust than in fragments. Barros postulates that mismatching in two-speaker exchanges may be more acceptable than single-speaker sentences. Such effects were not seen in the Urdu data.

B: { *Mig* | *Mér* }!  
 { Me.ACC | me.DAT }!  
 ‘Me!’

c. *Hana langar að fara, og honum líka.*  
 Her.ACC wants to go, and him.DAT too  
 ‘She wants to go, and he does too.’

Based on the facts outlined above, Wood et al argue in favour of a purely syntactic account. However, as discussed previously, such approaches cannot account for the semantic consequences of the alternation, which Wood et al themselves note is crucial in allowing Case-mismatching in Icelandic. A purely syntactic account incorrectly predicts that mismatching in (88) is grammatical. On the other hand, the only problem for the hybrid account is unwanted Case-mismatching due to synonymous paraphrases as in (86b). FIT easily overcomes this problem.

FIT correctly predicts grammatical and ungrammatical Case-mismatching in Icelandic. In mismatches caused by synonymous verbs, although the meaning of the antecedent and pre-slucice are consistent, the remnant does not grammatically fit into the position of the correlate, thus, mismatching is ungrammatical. Conversely, in mismatches caused by Case alternations due to verb licensing, although the remnant fits into the syntactic position of the correlate, the meaning of the antecedent and pre-slucice is not the same, therefore, FIT predicts Case-mismatching to be ungrammatical. However, in examples with Dative Substitution, both requirements of FIT are satisfied: the remnant fits into the position of the correlate, and meaning does not change with the mismatch. Therefore, Case-mismatching is correctly predicted to be grammatical in sentences with Dative Substitution.

Thus, as with the Urdu data, a hybrid approach accompanied by FIT is better able to account for the Icelandic facts than either a purely syntactic or purely semantic approach.

## 9. Conclusion

In this paper, I have presented novel Case-mismatching data from Urdu sluicing. The data features verbs that allow Case alternation by licensing more than one Case in select environments. The two Cases must have identical semantic information for the mismatching to



be grammatical. This is correctly predicted only by the hybrid account, with the addition of FIT. A purely syntactic account incorrectly predicts grammatical Case-mismatching wherever the verb licenses multiple Cases, while a purely semantic account does not allow for any mismatching at all. Under hybrid account without FIT, Case-matching is left unexplained and some incorrect instances of Case-mismatching are predicted. Moreover, based on the Urdu facts, I have shown that applying FIT at a structural level incorrectly predicts grammatical Case-mismatching in a narrow set of very specific circumstances. Thus, I have argued in favour applying FIT at a more ‘shallow’ or surface form level to prevent over-generation.

The Urdu data should be explored in more depth. Thorough research into the semantic contributions of the Case markers is needed, as well as speaker and dialectal variations. The analysis given in this paper predicts that Case-mismatching in sluicing should be grammatical for speakers who do not have a semantic contrast between the Case pairs. Once the semantic information of Case has been fully established, Case-mismatching can be explored more systematically.

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