1 Basic Goals

What is going on with swiping examples like (1)?

(1) Dana was talking, but I don’t know who to.

Are examples like (1) idiosyncratic or an instance of something more general?


In this talk, I argue for this later view.

-- More than prepositions can be involved in swiping

-- Any element that is optionally null, indefinite, and extraposible can be involved in swiping

-- This includes gerundive, infinitival clauses, as well as prepositions

(2) Dana was caught, but I don’t know what doing

(3) Dana was eager, but I don’t know what to do
2 Bigger picture

Swiping constructions are superficially rather strange. It is normally the case that the object of a preposition appears to the right of it (they’re called prepositions for a reason):

(4) a. Dana was talking to someone
    b. *Dana was talking someone to

Yet with swiping, we find this reverse order

(5) Dana was talking, but I don’t know who to

-- We need some means to maintain the complement relation between the preposition and its object without specially altering the head-initiality of English.
-- Movement is the best way to get something to be interpreted at a location while appearing elsewhere. What sort of movement?
-- If swiping is generalizable from simpler sub-parts, this construction does not need to be specially learned.

2 Previous Analyses

2.1 Head Movement Analyses

Merchant 2002 proposes that the wh-word head-moves at PF to incorporate into its selecting preposition:

(6) a. \[ PP \\
    P to \\
    DP who \]

b. \[ PP \\
    P who_{i+to} \\
    DP t_{i} \]

The PP pied-piped to the left periphery and only ‘swipes’ at PF.
This allows us to capture the fact that only head-like wh-words can swipe:

(7) *Ivy was talking, but I can’t remember which person to.

**Bottom line:** Only prepositions undergo this special transformation

### 2.2 Sub-Extraction Analyses

van Craenenbroeck 2004 and Hartman and Ai 2007 propose the prepositional phrase moves to the left periphery and the wh-element subextracts from within the moved prepositional phrase:

Following this movement, the IP is obligatorily elided.

**Bottom line:** Only elements that can pied-pipe to the left periphery can undergo swiping. In English, this is just prepositions.

### 2.3 Extraposition Analyses

Kim 1997, Hasegawa 2007, Nakao, Ono, and Yoshida 2006, and Larson 2011 posit that the wh-word and the preposition are structurally very distant and only superficially local.

(9) a. Ivy was talking, but I can’t remember who to.

    b. Ivy was talking, but I can’t remember who Ivy was talking to
(10)  

<table>
<thead>
<tr>
<th></th>
<th>extraposition:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>talking t[ to who][</td>
<td></td>
</tr>
<tr>
<td>b</td>
<td>wh-movement:</td>
<td>who Ivy was talking t[ to t][j]</td>
</tr>
<tr>
<td></td>
<td>IP-ellipsis:</td>
<td>who Ivy was talking t[ to t][j]</td>
</tr>
</tbody>
</table>

**Bottom line:** Any element that can extrapose and be extracted from can undergo swiping

In this paper I argue for a version of this last analysis

3 Background on Swiping

Following Rosen 1976, swiping is a sub-type of sprouting. That is, the antecedent clause cannot contain an overt analogue of the sluiced element:

(11) **Sprouting**  

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>Dana was eating, but I don’t know what.</td>
</tr>
<tr>
<td>b</td>
<td>Dana was eating something, but I don’t know what</td>
</tr>
</tbody>
</table>

**Normal sluicing**

(12) **Sprouting**  

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>Dana was talking, but I don’t know who to.</td>
</tr>
<tr>
<td>b</td>
<td>*Dana was talking to someone, but Idk who to.</td>
</tr>
</tbody>
</table>

**Normal sluicing**

Further, the null prepositional argument must be interpreted as indefinite in a sense:

(13) Dana was talking  

*can imply that Dana was talking to someone or about something.*

(14) Dana applied  

*means that Dana applied to a definite thing known to both interlocutors.*

(15) #Dana applied. Do you know what to/for?

This background allows us to test the generalizability of swiping
4 Additional optionally null indefinite elements

As noted in the previous section, null arguments that correspond to overt prepositional phrases can feed swiping:

(16)  a. Dana was talking…

       b. … but I can’t remember what about

This is predicted, of course, by each of the previous analyses. But in the head-movement account and the sub-extraction account, this is the limit of the construction

-- Merchant’s is tailored to prepositions and any larger element should block the head-movement following Travis 1984

-- van Craenenbroeck and Hartman and Ai’s approach only holds for pied-pipable elements, which in English is just prepositions

Contrast this with the extraposition analysis, as long as the element is extraposibile (and otherwise adheres to constraints on sprouting), it can swipe.

What are some other, non-PP, indefinite null arguments?

Gerundives:

(17) Dana was caught  implies that she was caught doing something

Infinitivals:

(18) Dana was eager  implies that she was eager to do something

These two types seem to be suitable to distinguish the extraposition account from the others:

First: These types of elements are too large for head-movement to hop over. Merchant’s account would say that these cannot swipe

Second: These types of elements cannot pied-pipe or otherwise move to the left periphery. The sub-extraction analysis would say that these can’t swipe
**Pied-piping**

(19) a. *Doing what was Ivy caught?

b. *To do what was Ivy eager?

c. About which cat was Ivy talking?

**Clefting**

(20) a. *It was stealing my money that she caught him.

b. *It was to report on time that we failed. (examples from Emonds 1972)

c. It was about Dana’s cat the Ivy was talking.

**Topicalization**

(21) a. *Stealing apples, Ivy was caught.

b. *To run away from home, Ivy was eager.

c. About Dana’s cat, Ivy was talking.

**Third:** These elements can extrapose. *The extraposition analysis would predict that these can undergo swiping.*

(22) a. Sal was caught yesterday doing something wrong.

b. Sal was eager yesterday to do something exciting

c. Sal was talking yesterday to someone

**In sum:** Only the extraposition analysis would predict that these gerundives and infinitivals should be available to swipe as well.
5 Generalized Swiping

Can gerundives and infinitivals of the sort discussed above swipe?

(23) a. Sal was caught, but I can’t remember what doing.
   b. Sal was caught last night. Really? What doing?

(24) a. Sal was eager, but I can’t remember what it was to do
   b. Sal was eager last night. Really? What to do?

It seems like it. Further, when clefted, the above examples can be made more natural:

(25) Sal was talking, but I can’t remember who it was to.

(26) Sal was caught, but I can’t remember what it was doing

(27) Sal was eager, but I can’t remember what to do.

**In sum, Swiping is possible with any element that:**

1) can go UnElided (that is, evade ellipsis)

2) is Basic in the sense that it can have an implicit antecedent

3) is a Remnant phrase out of which a wh-word has moved.

This is possible In Germanic Ellipsis constructions. Arguments that can undergo swiping are thus sub-types of ÜBRIGE (German for ‘leftover’) arguments.

When sub-parts of these constructions cannot extrapose, it is also correctly predicted that they will not be allowed to swipe:

(28) a. *Sal was caught doing t yesterday [something wrong]
   b. *What Sal was caught doing t yesterday t
   c. *What Sal was caught doing t yesterday t

(29) a. *Sal was caught, but I can’t remember what (it was)
   b. Sal was caught, but I can’t remember what (it was) doing.
(30) 

a. *Sal was eager to t yesterday [do something exciting]

b. *What Sal was eager to t yesterday [do t]

c. *What Sal was eager to t yesterday [do t]

(31) 

a. *Sal was eager, but I can’t remember what (it was) do.

b. Sal was eager, but I can’t remember what (it was) to do

Further, in some languages, preposition stranding is not licit:

(32) *Wem hat Sal mit gesprochen? (German)

who.dat has Sal with spoken?
‘Who did Sal speak with?’

Nor is swiping:

(32) *Sal hat gesprochen, aber ich weiss nicht wem mit
Sal has spoken but I know not who.dat with
‘Sal spoke, but I don’t know who with

However, swiping might be possible when preposition stranding is not a risk:

(33) Sal war bereit (etwas zu machen). Optionally null, indefinite

Sal was ready something to make.
‘Sal was ready to do something’

(34) Was war Sal bereit zu machen? Can be extracted from

what was Sal ready to make
‘What was Sal ready to do?’

(35) Sal war bereit gestern etwas zu machen Extraposible

Sal war ready yesterday something to do
‘Sal was ready yesterday to do something’

(36) Sal war bereit, aber ich hatte keine Ahnung was zu machen Swipable

Sal was ready but I had no idea what to do
‘Sal was ready, but I had no idea what Sal was ready to do’
6 Swiping Further Generalized

One might ask: If swiping is so generalizable, then why does it only extend to wh-words?

(37) Dana was talking, but I can’t remember who to

(38) *Dana was talking. Yeah, Ivy to

There may be some sort of parallelism wanting in (38) that is not similarly wanting in (37).

(39) ∃x Dana was talking to x, but I can’t remember for what x Dana was talking to x

(40) ∃x Dana was talking to x. Dana was talking to Ivy

When we try to force parallelism, non wh-word swiping seems possible:

(41) Mary, Dana was talking TO; Ivy ABOUT

(42) Mary, Dana was caught KICKING; Ivy HITTING

(43) Mary, Dana was eager to KICK, Ivy HIT

It seems then the swiping construction extends quite beyond wh-words and prepositions

7 Conclusion

-- I have argued that swiping is not an idiosyncratic constructions that only involves wh-words and prepositions.

-- Instead, I have noted that swiping can involve larger structures so long as they can evade ellipsis, are optionally null and indefinite, and can extrapose.

-- This makes analyses in which only prepositions can undergo swiping less satisfactory accounts. Accounts that rely on extraposition to feed swiping capture the data better.
8 References

Hartman and Ai. 2007. A focus account of swiping. Ms. Harvard University
Hasegawa. 2007. Swiping involves preposition stranding, not pied-piping. GLOW 30.
Tromso.
Richards. 1997. What moves where when in which language? Diss. MIT.
Travis. 1984. Parameters and Effects of Word Order Variation, Diss, MIT.