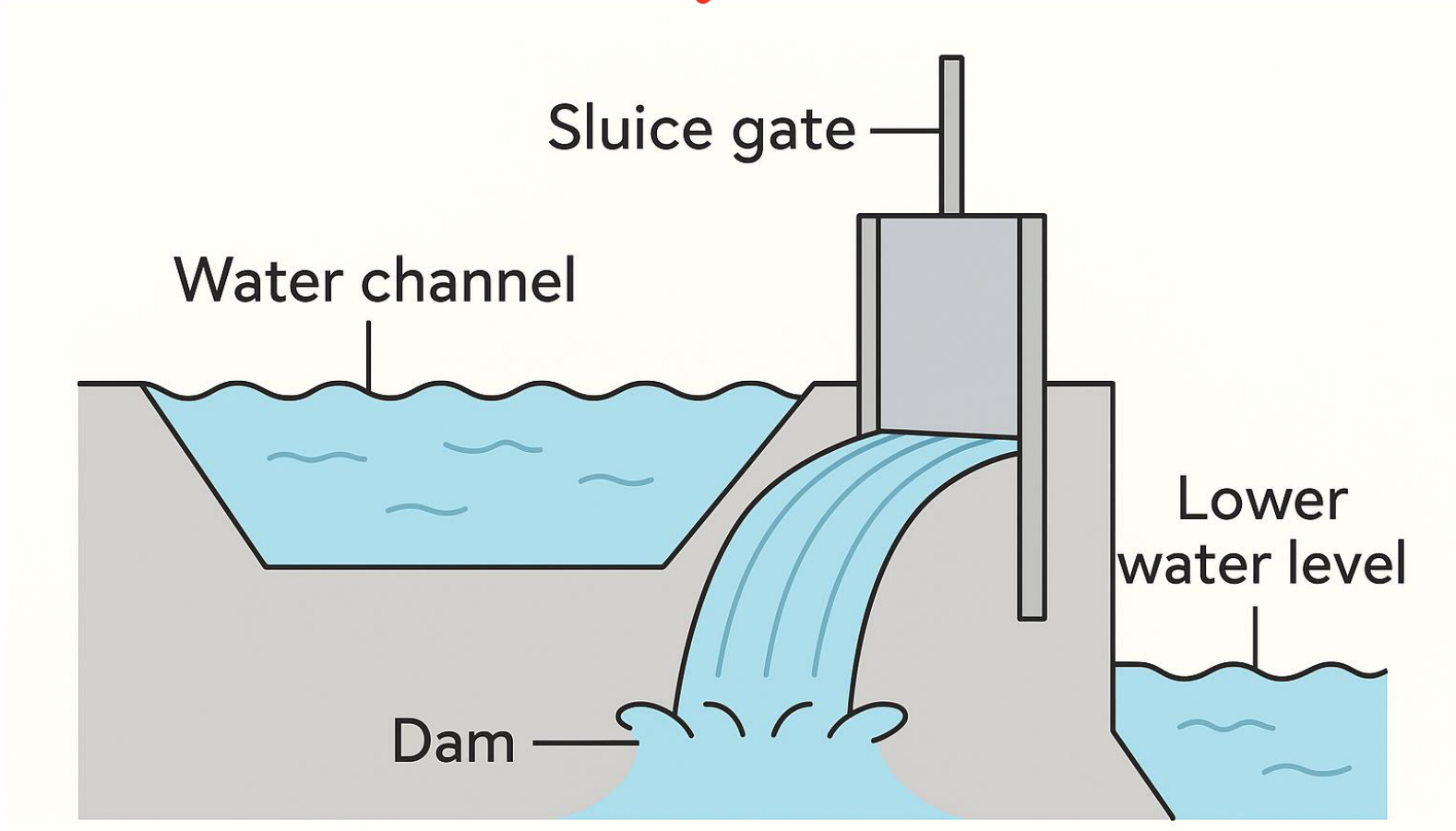
Luka Crnič, 15.5.25 @ TAU

Sluicing, strictly & without evasion



chat GPT-4

antecedent sentence

correlate

Gal improved in a certain class.

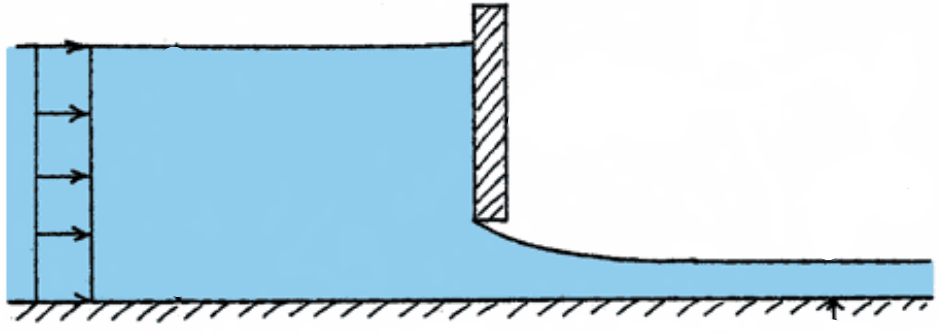
wh-remnant

Tal can tell you which class

sluice

Every student improved in a certain class.

Tal can tell you which student in which class



Sluicing and its complex nature have had a profound effect on our theories of:

1. ellipsis
2. movement
3. indefinites

Some received assumptions

1. ellipsis

ellipsis is licensed only if structural isomorphism obtains between the LF of an antecedent constituent and the LF of a constituent dominating the elided material

(e.g., Fiengo & May 94, Fox 00)

2. movement

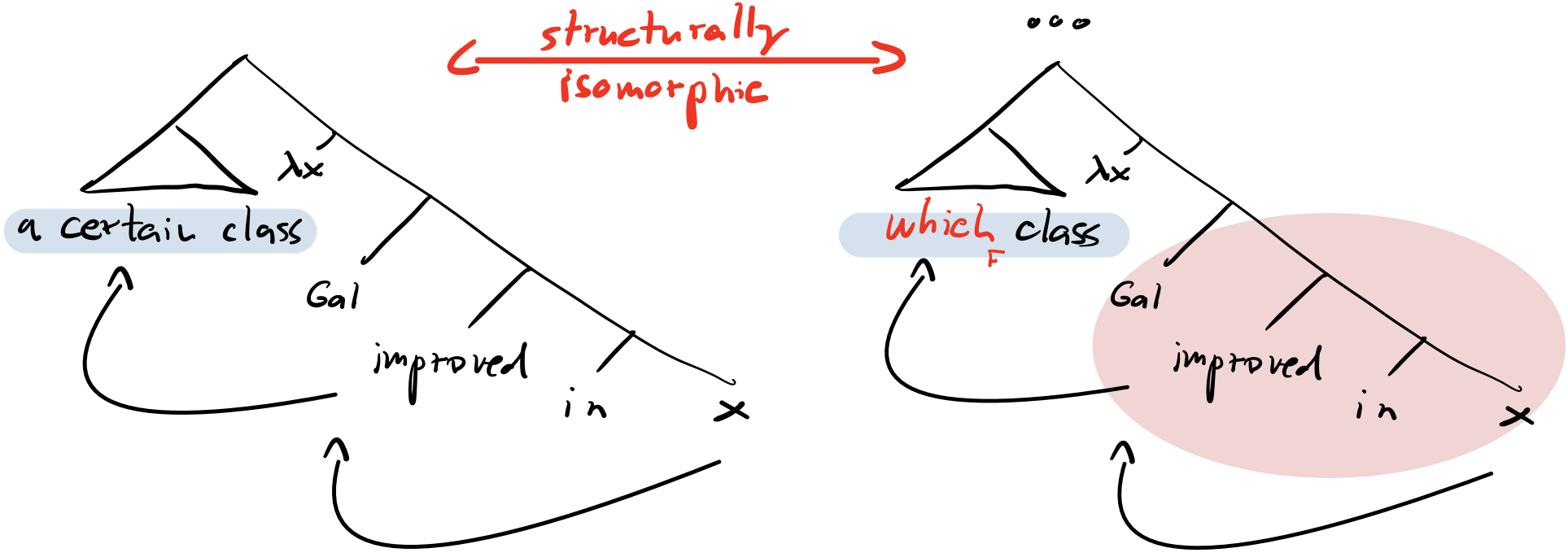
successive cyclicity, islands

3. indefinites

existential quantifiers, QR

Gal improved in a certain class.

Tal can tell you which class

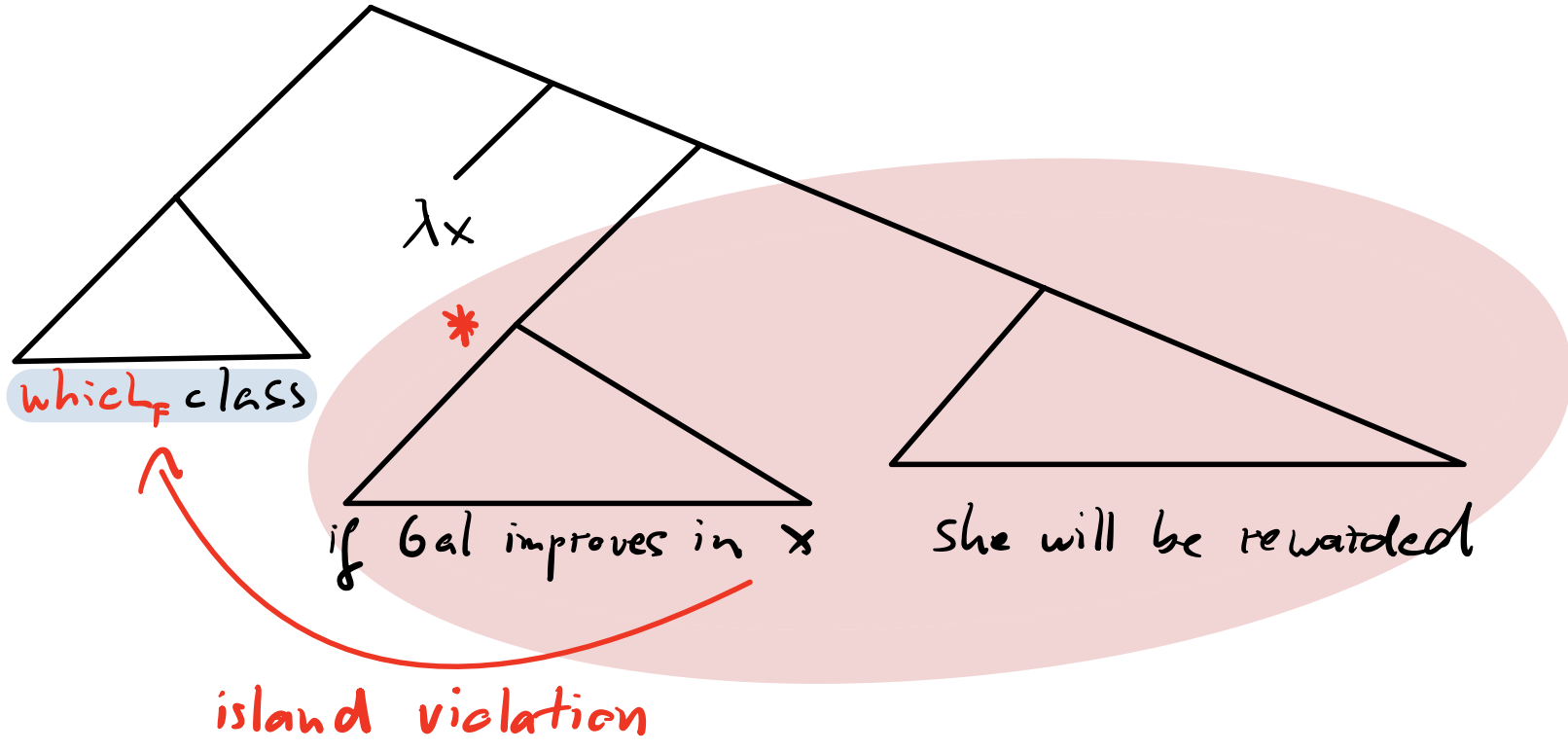


A challenge

(Ross 1969)

If Gal improves in a certain class, she will be rewarded.

Tal can tell you which class



Evading the challenge?

If Gal improves in a certain class, she will be rewarded.
Tal can tell you which class.

Evasion strategy: which ∓ class × MOD Gal improve in x
{be rewarded}

the elided material kinda corresponds to the if-clause

(cf., e.g., Barros, Elliott & Thoms 14, Abels 16
see Rudin 19 for some constraints)

Against evasion (pro challenge):

① syntactic isomorphism (i.a.) is not satisfied

the indefinite correlate (can) take exceptional scope,
the remnant does not.

Evading the challenge?

(2) big isomorphism domains can be forced

binding from the matrix clause into the sluice

Every teacher$_1$ will get a promotion
if Gal improves in a certain class of theirs$_1$.

A committee decides in which class of theirs,

Evasion strategy: *which$_f$ class of theirs$_1$ MOD Gal improve in?

$\rightsquigarrow$ the challenge is real

Revised assumptions resolve the challenge

1. ellipsis

   syntactic isomorphism

2. movement

   successive cyclicity, islands

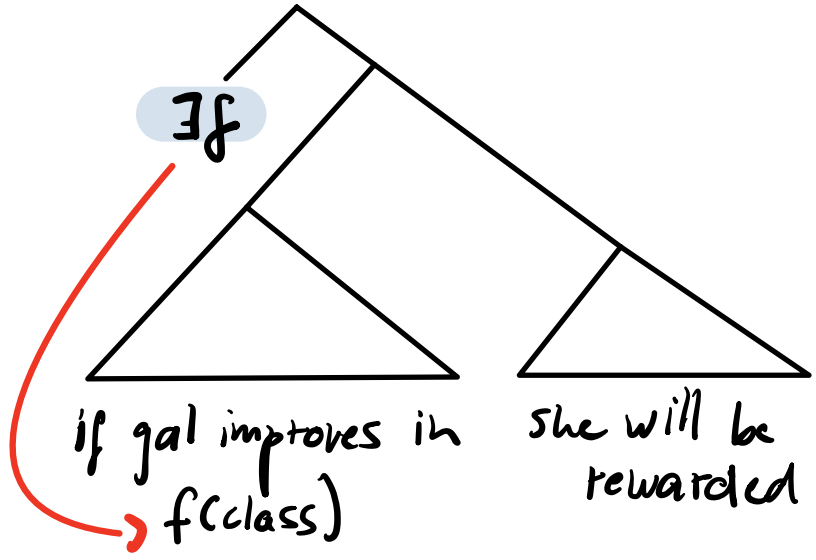
   unless the pertinent constituents are elided ("island repair")

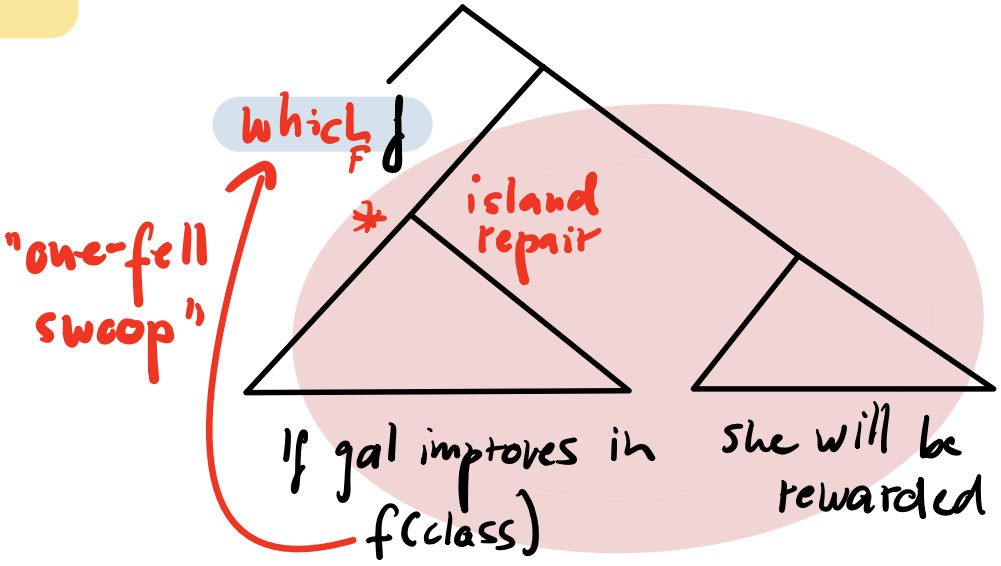
3. indefinites

   existential quantifiers, QR

   or they introduce existentially-closed choice functions

all independently supported!





(cf., e.g., Ross 69, Chomsky 72, Fox & Lasnik 03, etc.)

The challenge exacerbated

Island repair is witnessed also in multiple sluicing

If every student improves in a certain class,
the school will get a grant.

A committee decides which student in which class.

Erasion can be ruled out again

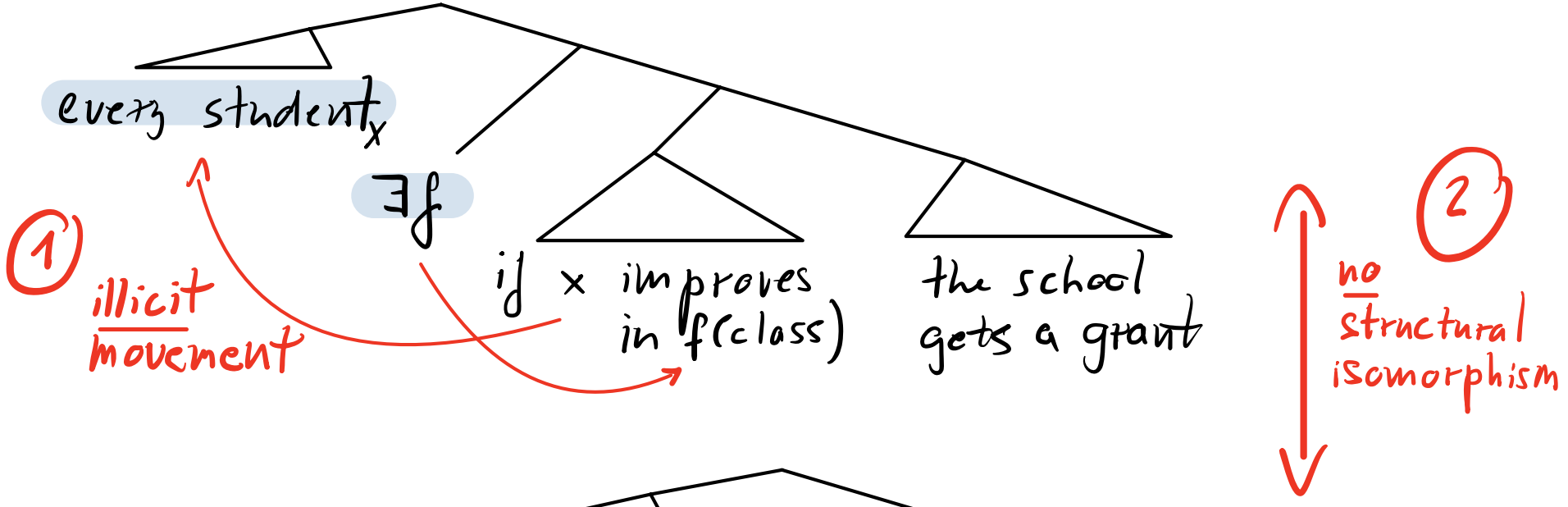
Every advisor$_1$ gets a promotion if every student of theirs$_1$
improves in a certain class.

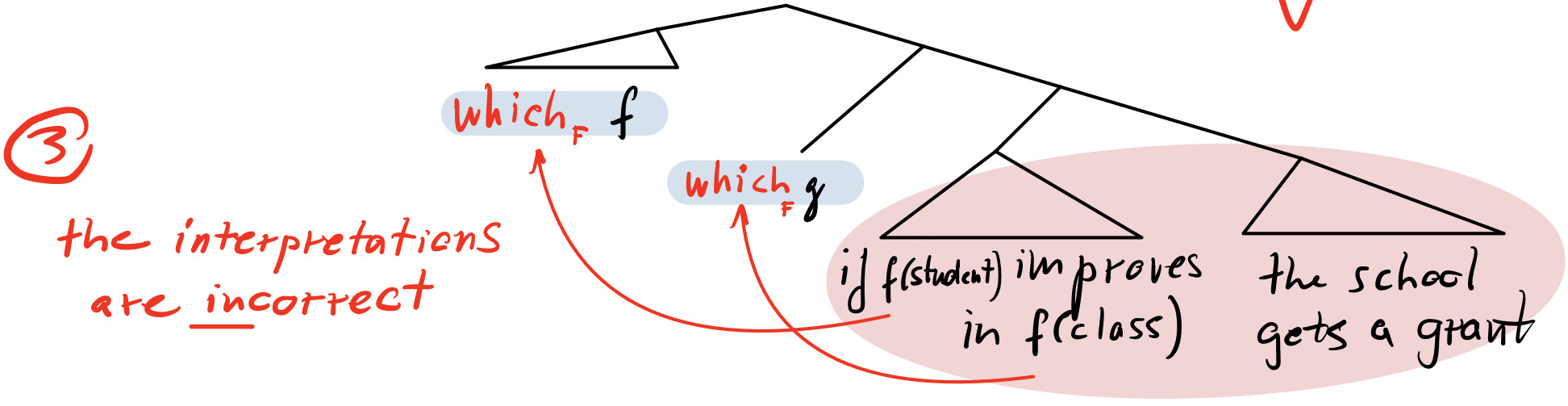
A committee decides which student of theirs in which class.

(pace Abels & Dayal 23)

The challenge exacerbated

the revised assumptions are of no help with the multiple sluicing challenge





Plan

we pursue an alternative path, which builds on recent movement approaches to exceptional scope indefinites. if successful, we provide new support for them, and also a new analysis of dependent indefinites, multiple sluicing.

1. ellipsis
   syntactic isomorphism
2. movement
   successive cyclicity, islands
3. indefinites
   existential quantifiers, QR

Karttunen's proto-question operator, which induces sets of propositions, can be freely inserted

(see Dayal 96, Heim 14, Charlow 14, 20, Demirok 19)

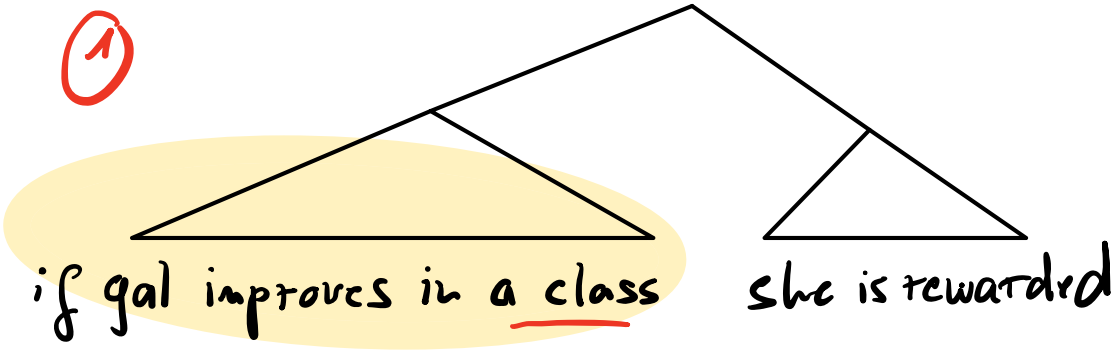
Exceptional scope

Minamoto no Yorimasa Aiming an Arrow (into the sky)

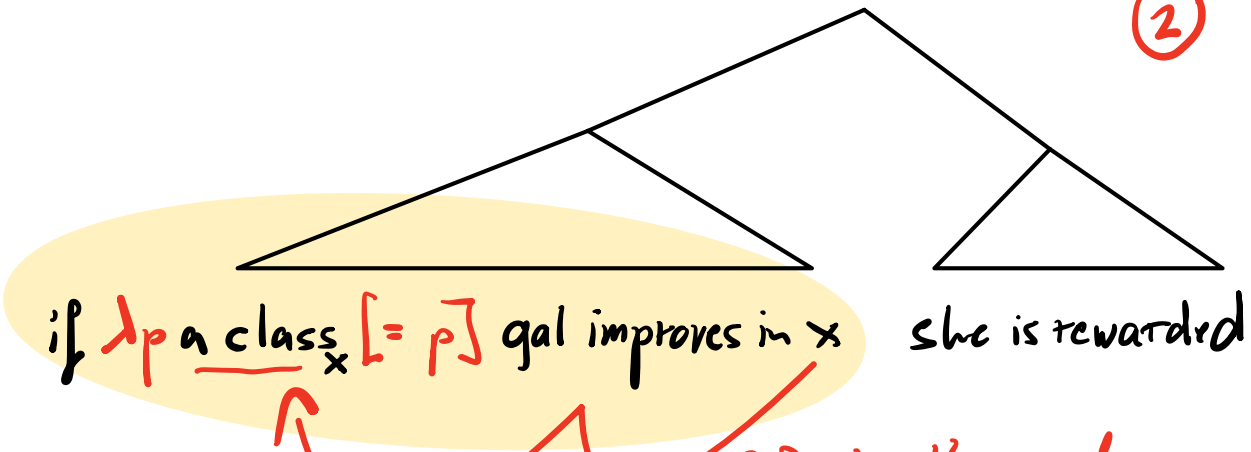
Exceptional scope

If Gal improves in a certain class, she will be rewarded

$\exists x$: class x & if Gal improves in class x, Gal is rewarded



indefinite on an island



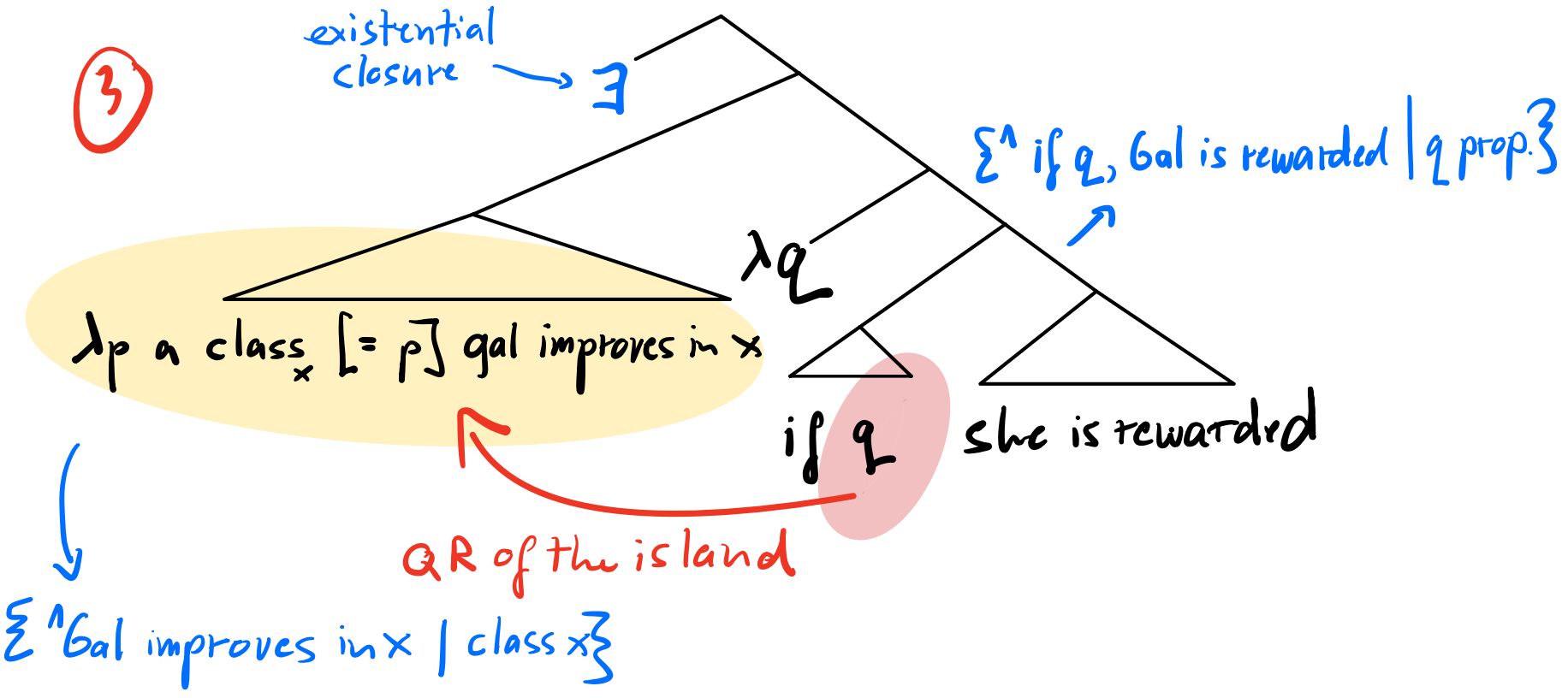
Karttunen's set-induction

QR to the edge of the island

$\{^{\wedge}$Gal improves in x | class x$\}$

(esp. Demitok 19)

Exceptional scope



$= \exists p \in \{\Sigma^{\wedge}$ if Gal improves in x, Gal is rewarded | class x$\} : p$ is true

$= \exists x :$ class x & if Gal improves in class x, Gal is rewarded

(esp. Demitok 19)

Taking stock

exceptional scope readings were derived without crossing island boundaries, by adding a single new, independently needed operation to the received repertoire, (unconstrained!) Karttunen's =-operator

one positive side-effect of this analysis is that it restricts exceptional scope to indefinites
(hence much of what we say below does not necessarily extend to fragments, say)

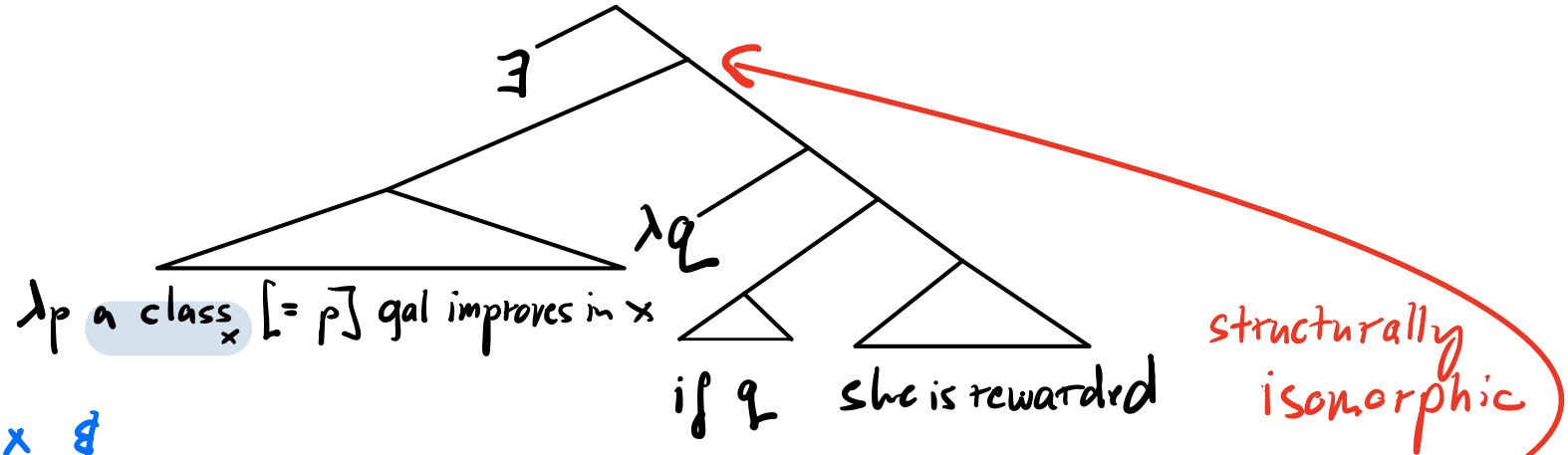
LF pied piping of islands must be assumed to be possible & rampant

Simple sluicing

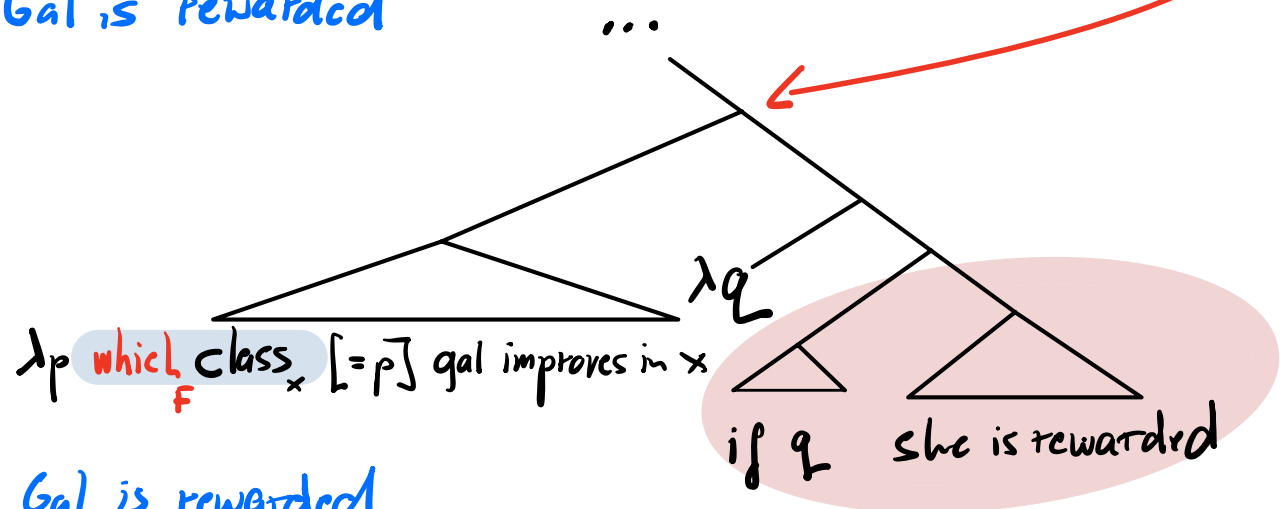
California gold miners with sluice

Simple sluicing and islands

If Gal improves in a certain class, she will be rewarded.
Tal can tell you which class.



∃x: class x &
if Gal improves in x, Gal is rewarded

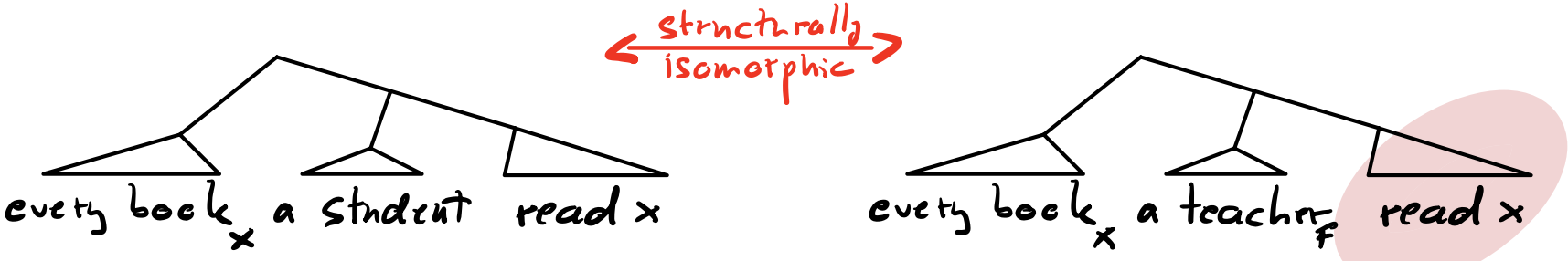


which class x:
if gal improves in x, Gal is rewarded

Pronunciation and covert movement?

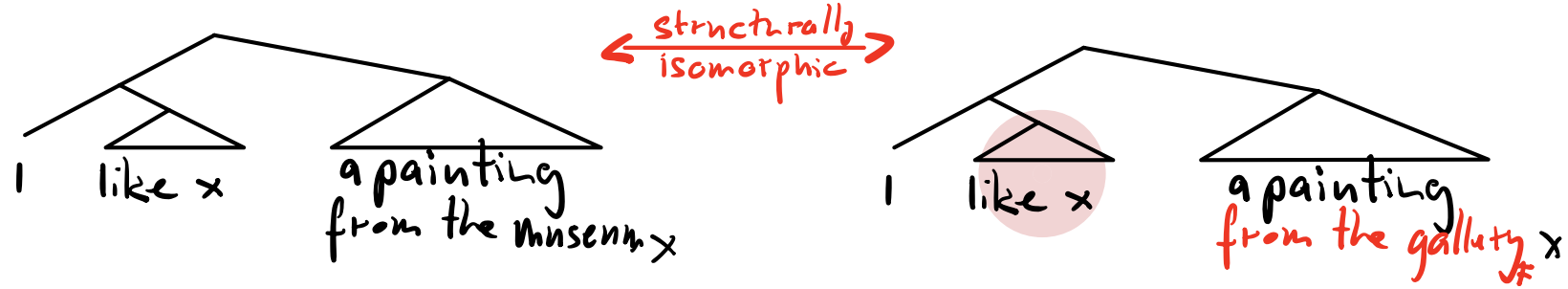
Covert movement out of elided constituents is unexceptional. For example, inverse scope reading is possible for the following:

A student read every book. A teacher did too.



And it is possible to pronounce elements dominated by the covertly moved constituent:

While I don't like any painting from the museum, I do from the gallery.



Taking stock

unsurprisingly, adopting a movement analysis of exceptional scope captures simple sluicing examples with islands, without departing from other received assumptions

but this analysis shifts the questions to (i.a.):

when can we pronounce subconstituents of constituents moving out of elided phrases?

why are <u>overt</u> pied-piping variants often not available?

but let's first convince ourselves that we might want to pursue this agenda...

Even more gold mining in California

Multiple sluicing

Multiple sluicing

If a student improves in one class,
the school will get a grant.

A committee decides which student in which class.

⇝ single-pair reading (preferred)

exceptional scope indefs. in the antecedent

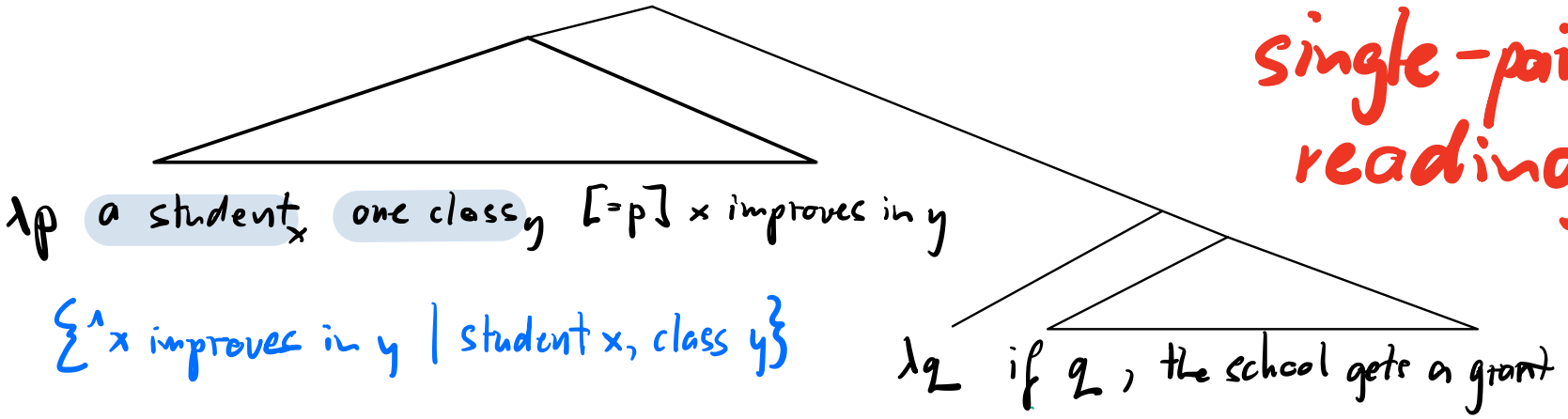
If every student improves in one class,
the school will get a grant.

A committee decides which student in which class.

⇝ pair-list reading

dependent indefs. in the antecedent

If a student improves in one class, the school will get a grant.
A committee decides which student in which class.

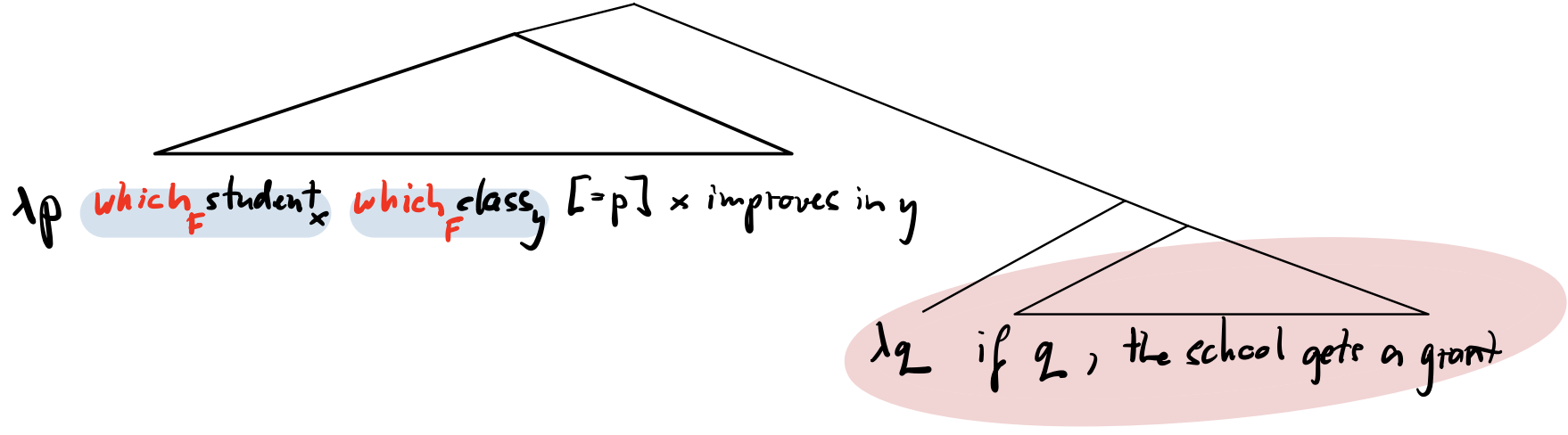


single-pair readings

{^x improves in y | student x, class y}

= ∃x,y: student x ∧ class y ∧ if x improves in y, the school gets a grant

structurally isomorphic



= which x,y: student x ∧ class y ∧ if x improves in y, the school gets a grant

Pair-list readings of multiple wh-questions

Which student improved in which class?
Which class did every student improve in?

Reading: for every student x: which class did x improve in?

$$\text{Max } Q\left[\text{which}_{\text{student}}\left[\text{every}\left[Q\left[\lambda p\left[\text{which class}_y = p \;\; x \text{ improved in } y\right]\right]\right]\right]\right]$$

↑ extension to get PL readings

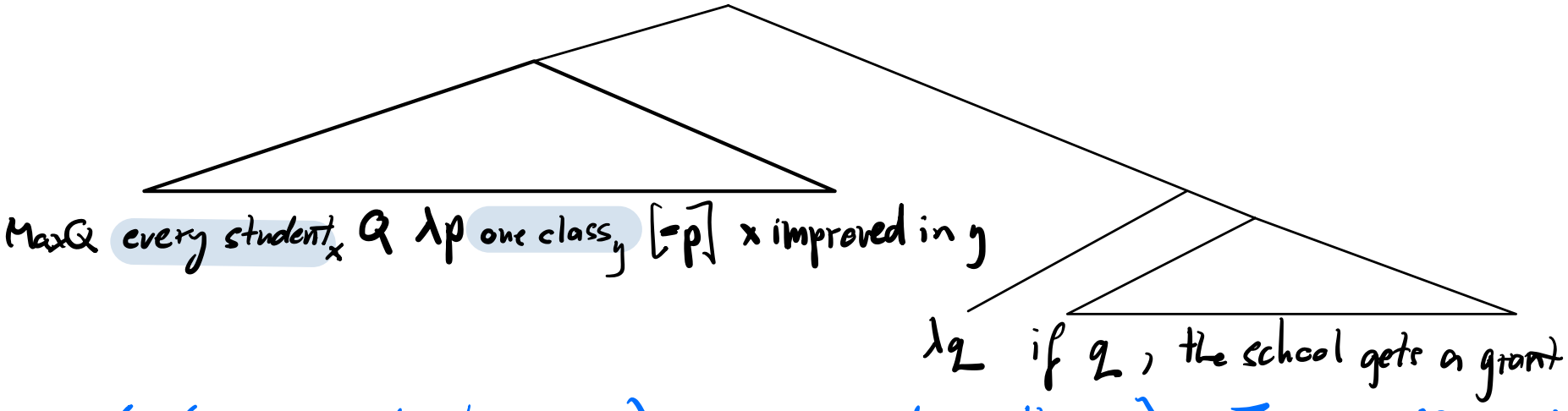
↑ as before

$$\{\bigwedge_{\text{student } x} \text{the answer}(w)(\text{which class}_y \text{ did } x \text{ improve in } y) \mid w \text{ possible world}\}$$

$$= \left\{ \wedge\begin{pmatrix}\text{Gal improved in bio} \wedge \\ \text{Tal improved in syntax} \wedge \\ \text{Ribhi improved in math}\end{pmatrix}, \wedge\begin{pmatrix}\text{Gal improved in math} \wedge \\ \text{Tal improved in syntax} \wedge \\ \text{Ribhi improved in bio}\end{pmatrix}, \ldots \right\}$$

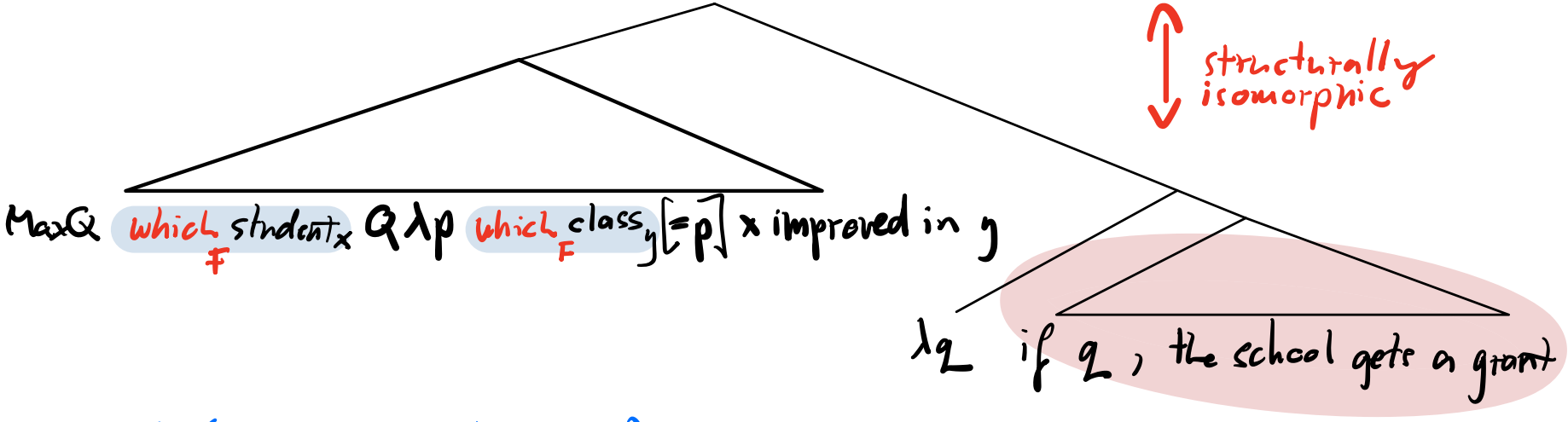
(see Hagstrom 98, Pafel 99, Fox 12, Dayal 16, et al)

If every student improves in one class, the school will get a grant.
A committee decides which student in which class.



$= \exists p \in \{ \wedge(\text{Gal improved in bio} \wedge \text{Tal improved in syntax} \wedge \ldots), \wedge(\text{Gal improved in math} \wedge \text{Tal improved in syntax} \wedge \ldots), \ldots \}$: if p, the school gets a grant

structurally isomorphic



$= \text{which}_F\ p \in \{ \wedge(\text{Gal improved in bio} \wedge \text{Tal improved in syntax} \wedge \ldots), \wedge(\text{Gal improved in math} \wedge \text{Tal improved in syntax} \wedge \ldots), \ldots \}$: if p, the school gets a grant

Taking stock

we extended the machinery responsible for generating pair-list readings of questions to indefinites. two further consequences:

1. we capture the pairwise uniqueness inferences of dependent indefinites
   (cf. PL readings of questions)

2. we capture the restriction of dependent indefinites to the scope of distributive quantifiers (cf. again PL readings of questions)
   (e.g., Schlenker 06)

and, of course, we capture the multiple slicing data without further ado

much remains to be addressed, let alone understood