

Noun Phrase Semantics (Introduction)

$NP : e$
 (John)
 $\rightarrow S : t$
 (It rains.)
 $S \setminus NP : \langle e, t \rangle$
 (sleeps)

$book : e$
 \downarrow
 denotes a set
 $\langle e, t \rangle$
 $NP : e$
 $book := \underline{S \setminus NP} : \lambda x. book'x$
 $\langle e, t \rangle$

"a book" is an entity
 determined noun phrase
 (or determiner phrase)

child := S \ NP : $\lambda x. \text{child}'x$
 $\langle e, t \rangle$

NP

The child

sleeps.

λ
 \cdot
 $\text{NP} / (\text{S} \setminus \text{NP})$
 e
 $+ e$

\Rightarrow
 $\text{S} \setminus \text{NP}$
 $\lambda x. \text{child}'x$
 $\langle e, t \rangle$

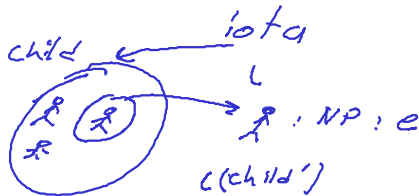
$\text{S} \setminus \text{NP}$
 $\lambda x. \text{sleeps}'x$
 $\langle e, t \rangle$

$\langle e, t \rangle$

$\langle \langle e, t \rangle, e \rangle$

"the child"] definite descriptions
 ↓
 definiteness

→ familiar
 → salient
 → uniqueness
 → identifiability
 → exhaustivity
 } blend these concepts



$\lambda(\text{child}')$
 \equiv
 $\frac{\text{iota}'\text{child}'}{e}$

the child \hookrightarrow John

$\text{NP} : e$

→ main function

the

$NP / (S \setminus NP)$

$\lambda p. \text{iota}' p$
 $\frac{\text{iota}' p}{\text{iota}' p}$

$\langle \langle e, t \rangle, e \rangle$

a child

$S \setminus NP$
 $(\lambda x. \text{child}' x)$
 $\langle e, t \rangle$

sleeps

$S \setminus NP$
 $\lambda x. \text{sleep}' x$
 $\langle e, t \rangle$

→

NP
 $(\text{iota}' \text{child}')$
 $\text{iota}' (\lambda x. \text{child}' x)$
 e

←
 S
 $\text{sleep}' (\text{iota}' \text{child}')$
 t
 \Rightarrow

$\left\{ \begin{array}{l} \text{child} := S \setminus NP \\ \text{sleeps} := S \setminus NP \end{array} \right.$

$$S \setminus \underline{NP_{[\psi 1]}} \equiv N_{//}$$

John := NP
[$\psi 0$]

John sleeps.

*John child

* John child
 NP S \ NP
 [$\psi 0$] [$\psi 1$]

the
 NP / (S \ NP)
 [$\psi 1$]

"the child" ✓
 (S \ NP)
 [$\psi 1$]

"the John"
 NP
 [$\psi 0$]

child : N <e,t>
 sleeps : S \ NP <e,t>
 the := NP / N <<e,t>, e>

