Different kinds of meaning: Presupposition

What is taken for granted

Possessives

(1) **Emma's son** is smart.
⇝ Emma has a son.

Factive verbs

(2) Becky **knows** Alex is tall.
⇝ Alex is tall.

Additive adverbs

(3) Kelly wore a hat, **too**.
⇝ Someone else wore a hat.

Definites

(4) **The** student is smart.
⇝ There is a unique student.

Gender feature

(5) **She** is knowledgable.
⇝ The person referred to by *she* is female.

Definition

Presuppositions are inferences **backgrounded** and **taken for granted** (Redundancy).

1. A sentence can be felicitously uttered only in contexts where its presupposition is true.
2. Expressions triggering presuppositions are presupposition triggers.

Three value logic (weak Kleene)

A sentence is neither true (1) nor false (0), but undefined (#) iff its presupposition is false.

ϕ	ψ	$\neg\phi$	$\phi \wedge \psi$	$\phi \vee \psi$	$\phi \to \psi$
1	1	0	1	1	1
1	0	0	0	1	0
1	#	0	#	#	#
0	1	1	0	1	1
0	0	1	0	0	1
0	#	1	#	#	#
#	1	#	#	#	#
#	0	#	#	#	#
#	#	#	#	#	#

What are you protesting

(6) A: Is Emma's son smart?
B: No, he isn't.
B': #No, Emma doesn't have a son.
B": Hey wait a minute. I didn't know Emma has a son.

Projection

(7) Emma's son is **not** smart. (negation)
⇝ Emma has a son.

(8) **Is** Emma's son smart? (question)
⇝ Emma has a son.

(9) **Maybe** Emma's son is smart. (modal)
⇝ Emma has a son.

(10) **If** Emma's son is smart, **then** he can resolve this puzzle. (conditional)
⇝ Emma has a son.

Filtering

In a sentence consisting of multiple sub-clauses,

1. the presupposition of a sub-clause may be satisfied locally;
2. the whole sentence does not have the presupposition.

Conjunction

(11) Emma has a son and her son is very smart.
↛ Emma has a son.

Conditional

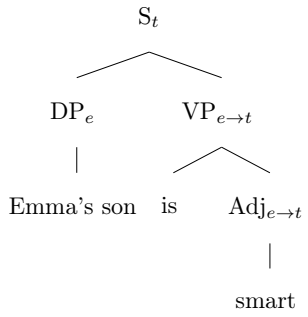
(12) If Emma has a son, she would send her son to that school.
↛ Emma has a son.

Disjunction

(13) Either Emma doesn't have a son, or her son doesn't live with her.
↛ Emma has a son.

Definedness condition

$[\![\text{Emma's son}]\!] = \mathsf{a}$ Type: e
defined only if Emma has a son



- $[\![\text{smart}]\!] = x \mapsto x \in \{y \mid y \text{ is smart}\}$ Type: $e \to t$
- $[\![\text{Emma's son is smart}]\!] = [\![\text{smart}]\!]([\![\text{Emma's son}]\!])$
  $= \mathsf{a} \in \{y \mid y \text{ is smart}\}$
  defined only if
  Emma has a son

At issue meaning: $\mathsf{a} \in \{y \mid y \text{ is smart}\}$

Non-at-issue meaning: the definedness condition

Other types of non-at-issue meanings

Scalar implicature (Cancelable)

(14) Emma ate three apples.
⇝ Emma ate **only** three apples.

(15) Emma ate three apples. In fact, she ate four.

Supplement (non-at-issue but new)

(16) Did Alex, who you mistreated, press charges?

(17) A: Alex is incompetent.
B: Does Alex knows he is?
B': #Is Alex, who is incompetent, aware of this?