Final review

1 Key terms and concepts

Key terms and concepts, roughly in the order they were introduced. *(For terms in italics and parentheses, only a very basic understanding is expected.)*

- truth condition, compositionality
- entailment ($\Rightarrow$), presupposition ($\rightsquigarrow$): how to distinguish
- set notation: $\{x : x \text{ is a cat}\}$ $\in$ $\subseteq$ $=$ $\cap$ $\cup$ $\setminus$
- other mathematical notation: $\forall$ $\exists$ $\wedge$ $\vee$ $f \,||\, g$ $[i \mapsto x]$
- the interpretation function $[\![...]\!]$
- types: e, t, $\langle\sigma, \tau\rangle$ D_τ is the domain of type τ
- λ-notation: $f = \lambda \underbrace{x}_{\text{argument variable}} : \underbrace{x \in \mathbb{R}}_{\text{domain condition}} . \underbrace{x + 1}_{\text{value description}}$
- characteristic functions of sets
- The Triangle Method; Binary Branching
- variables: bound vs free, binders, *such that*, index, assignment function, vacuous binding
- The interpretation of movement:
  Pick an arbitrary index i.
  1. The base position of movement is replaced with a *trace* with index i: t_i.
  2. A *binder index i* is adjoined right under the target position of the movement chain.
- Quantifiers:
  - Generalized Quantifier Theory
  - quantificational determiners
  - type $\langle\langle e, t\rangle, t\rangle$
  - the problem of quantifiers in object position
  - restrictor, scope, bound pronouns
- Grammatical architecture:
  - T/Y-model: Syntax, Logical Form (LF), Phonological Form (PF)
  - overt and covert movement; islands
  - Quantifier Raising (QR); *(reconstruction)*

- Ellipsis: (Handout 7)
  - LF Identity Condition on Ellipsis (H&K p. 250) (7)
  - scope parallelism
  - strict and sloppy readings of pronouns
  - Antecedent-Contained Deletion (ACD); Sag-Williams generalization (8)
- Focus: (Handout 8)
  - alternatives, prejacent, F-mark
  - focus-semantic value $[\![...]\!]^f$, point-wise composition (9), ordinary semantic value $[\![...]\!]^o$
  - *only*, *also*
  - Taglicht ambiguities
- Modals and conditionals: (Handout 9)
  - extension, intension
  - possible worlds; type *s*
  - modals bases: epistemic (Epist), deontic (Deont), "root"
  - modal forces: possibility (∃), necessity (∀)
  - Intensional Functional Application (10)
  - conditionals: material implication (→), modal restrictor view
- Negative Polarity Items (NPIs): (Handout 10)
  - licensor, upward-entailing, downward-entaling (DE), *(strong NPIs)*
  - *even*, *(even associating with an indefinite)*
- Questions: (Handout 11)
  - the meaning of a question is..., *(weak vs strong exhaustivity)*
  - question-answer congruence (11)
  - alternative question; multiple *wh*-questions: single-pair vs pair-list, AltShift (12)
- Binding and coreference: (Handout 12)
  - Traditional Binding Theory: Conditions A, B, C
  - coreference: accidental coreference vs variable binding
  - syntactic binding vs semantic binding
  - Have Local Binding! (13)
  - indices under ellipsis, *(Dahl's puzzle)*

2 Basic composition rules

You will have to be able to use these six rules without their definitions, and give their names.

(1) **Terminal Nodes (TN):**
If α is a terminal node, $[\![\alpha]\!]$ is specified in the lexicon.

(2) **Non-branching Nodes (NN):**
If α is a non-branching node, and β is its daughter node, then $[\![\alpha]\!] = [\![\beta]\!]$.

(3) **Functional Application (FA):** (Handout 4 version; based on H&K)
If α is a branching node, $\{\beta, \gamma\}$ is the set of α's daughters, then

- $[\![\alpha]\!]$ is defined if and only if: $[\![\beta]\!]$ and $[\![\gamma]\!]$ are both defined and
  $[\![\beta]\!]$ is a function whose domain contains $[\![\gamma]\!]$;
- if defined, $[\![\alpha]\!] = [\![\beta]\!]([\![\gamma]\!])$.

(4) **Predicate Modification (PM):**
If α is a branching node, $\{\beta, \gamma\}$ is the set of α's daughters, and $[\![\beta]\!]$ and $[\![\gamma]\!]$ are both in $D_{\langle e,t\rangle}$, then $[\![\alpha]\!] = \lambda x \in D_e\ .\ [\![\beta]\!]\,(x) = 1$ and $[\![\gamma]\!] = 1$

(5) **Traces and Pronouns Rule (T&P):**
If α is a pronoun or trace, g is a variable assignment, and $g(i)$ is defined, then $[\![\alpha_i]\!]^g = g(i)$.

(6) **Predicate Abstraction (PA):**
Let α be a branching node with daughters β and γ, where β dominates only a numerical index i. Then, for any assignment g, $[\![\alpha]\!]^g = \lambda x\ .\ [\![\gamma]\!]^{[i\mapsto x]]|g}$.

3 Additional technical concepts

If any of the following rules/concepts are necessary on the final, they will be given:

(7) **LF Identity Condition on Ellipsis:** (H&K p. 250)
A constituent may be deleted at PF only if it is a copy of another constituent at LF.
A rule for indices (p. 254): No LF representation (for a sentence or multisentential text) must contain both bound occurrences and free occurrences of the same index.

(8) **The Sag-Williams generalization:** (Sag, 1976; Williams, 1974)
In Antecedent-Contained Deletion, the size of the ellipsis determines the lowest possible scope of the object DP.

(9) **A recursive definition for the computation of focus-semantic values:**

Terminal nodes (TN):

$$[\![\alpha_\tau]\!]^f = \begin{cases} \{[\![\alpha_\tau]\!]\} & \text{if } \alpha \text{ not F-marked} \\ \text{a subset of } D_\tau & \text{if } \alpha \text{ F-marked} \end{cases}$$

Point-wise functional application (PFA):

$$\left[\!\!\left[\begin{array}{c} \alpha_\tau \\ \wedge \\ \beta_{\langle\sigma,\tau\rangle} \quad \gamma_\sigma \end{array} \right]\!\!\right]^f = \begin{cases} \left\{ b(g) \mid b \in [\![\beta]\!]^f, g \in [\![\gamma]\!]^f \right\} & \text{if } \alpha \text{ not F-marked} \\ \text{a contextually-determined subset of } D_\tau & \text{if } \alpha \text{ F-marked} \end{cases}$$

(10) **Intensional Functional Application:** (from Handout 9; based on von Fintel and Heim, 2011)

If α is a branching node and $\{\beta, \gamma\}$ is the set of its daughters, then, for any world w and assignment g: if $[\![\beta]\!]^{w,g}$ is a function whose domain contains $\lambda w'_s \,.\, [\![\gamma]\!]^{w',g}$, then $[\![\alpha]\!]^{w,g} = [\![\beta]\!]^{w,g} \left(\lambda w'_s \,.\, [\![\gamma]\!]^{w',g}\right)$.

(11) **Condition on question-answer congruence (Rooth, 1992):**

$[\![\text{question}]\!]^o \subseteq [\![\text{answer}]\!]^f$

(12) **AltShift (Kotek, to appear):**

$[\![[\text{AltShift } \alpha]]\!]^o = [\![\alpha]\!]^f$

$[\![[\text{AltShift } \alpha]]\!]^f = \left\{[\![[\text{AltShift } \alpha]]\!]^o\right\} = \left\{[\![\alpha]\!]^f\right\}$

(13) **Have Local Binding! (Büring, 2005):**

For any two NPs α and β, if α could semantically bind β (i.e. if it c-commands β and β is not semantically bound in α's c-command domain already), α must semantically bind β, unless that changes the interpretation.

References

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