

Symbolic Grammar and Constructions

- A. Architecture
- B. Basic Semantic Notions
- C. Prototypical Constructions
- D. Non-Prototypical Constructions
- E. Grammatical Dependencies

A. Architecture

- (1) **Cognitive Grammar** (CG) claims that grammatical structure is *symbolic* in nature, and that *constructions* are the primary objects of description.
- (2)(a) **Weak autonomy**: Grammar cannot be fully predicted from meaning and other independent factors (e.g. communicative constraints).
- (b) **Strong autonomy**: Grammar is distinct from both lexicon and semantics, constituting a separate level of representation whose description requires a special set of irreducible grammatical primitives.
- (3) While accepting weak autonomy, CG provides a radical alternative to strong autonomy:
 - (a) Lexicon, morphology, and syntax form a continuum, divided only arbitrarily into discrete “components”.
 - (b) Lexicon and grammar are fully describable as **assemblies of symbolic structures**.
 - (c) A **symbolic structure** is the pairing between a *semantic structure* and a *phonological structure* (its semantic and phonological **poles**).
 - (d) Consequences: (i) Grammar is not distinct from semantics but *incorporates* it as one pole. (ii) The elements of grammatical description are not special, irreducible primitives, but reduce to form-meaning pairings. (iii) Every valid grammatical construct is meaningful.
- (4) Kinds of devices employed in grammatical description:
 - (a) **Rules**: “Constructive” rules (e.g. transformations), which collectively serve to construct (or enumerate) expressions. [They *need not* resemble expressions.]
 - (b) **Filters**: Negative statements indicating that a particular configuration of elements is **not** permitted. [They *cannot* resemble expressions.]
 - (c) **Schemas**: Templates for sets of expressions, representing their abstracted commonality observable at a certain level of specificity. [They *must* resemble expressions.]
- (5)(a) CG represents grammatical patterns by means of **schemas**.
 - (b) A **construction** is either an *expression* (of any size) or else a *schema* abstracted from expressions to capture their commonality (at any level of specificity).
 - (c) Both expressions and schemas can be **entrenched** psychologically and **conventionalized** in a speech community, thus constituting established **linguistic units**.
 - (d) Unit expressions are **lexical items**. More schematic units correspond to **grammar**.
 - (e) Whether specific (“lexical”) or schematic (“grammatical”), every construction comprises an assembly of symbolic structures.

- (6) By the **content requirement**, the elements permitted in a linguistic description are limited to:
 (i) semantic, phonological, and symbolic structures that actually occur as (*parts of*) *expressions*; (ii) *schematizations* of permitted structures; and (iii) *categorizing relationships* between permitted structures.

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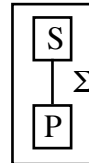
(a) Semantic
Structure



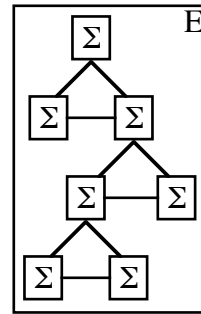
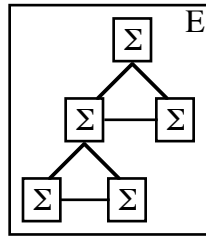
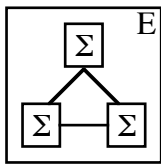
(b) Phonological
Structure



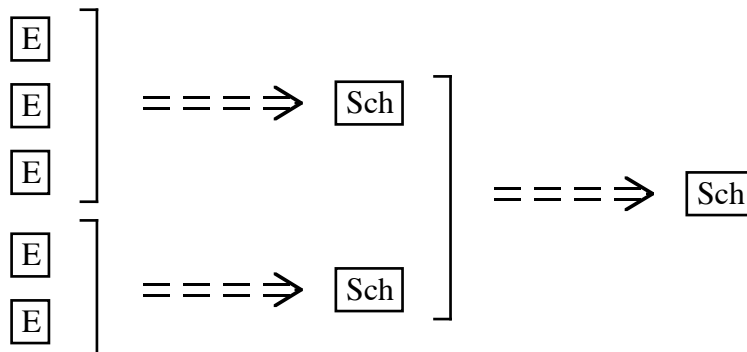
(c) Symbolic
Structure



(d) Symbolic Assemblies (= Expressions)

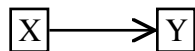


(8) Schematization

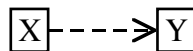


(9) Categorizing Relationships

(a) Elaboration

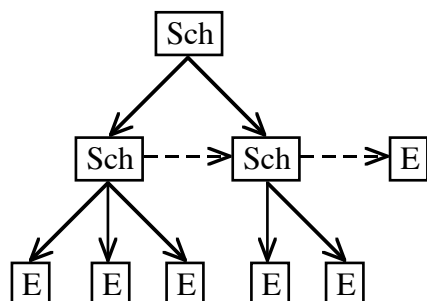


(b) Extension

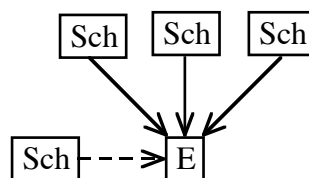


(10)

(a) Categorization Network



(b) Structural Description



(11) An expression is categorized simultaneously by many schemas, each corresponding to a particular facet of its structure. Collectively, the set of schemas which categorize it constitutes its **structural description** (i.e. its interpretation with respect to the linguistic system). The expression is *well-formed* (“grammatical”) to the extent that these categorizations involve *elaboration* (rather than extension).

(12) Grammatical patterns are captured by **constructional schemas** (schematic symbolic assemblies), which describe in schematic terms how simpler expressions combine to form more complex expressions. Constructional schemas function as templates guiding the formation of new expressions and serve to categorize relevant facets of them.

(13)(a) By means of constructional schemas, grammar allows the formation of **symbolically complex** expressions capable of evoking novel conceptions of any degree of complexity.

(b) A constructional schema specifies how component elements are **semantically integrated**, and how they are **phonologically integrated** to symbolize their semantic integration.

(c) The semantic pole of a constructional schema is a **pattern of semantic composition**.

(14)(a) Linguistic semantics exhibits only **partial** (rather than **full**) **compositionality**.

(b) Linguistic meanings are crucially dependent on an elaborate **conceptual substrate** going far beyond what is explicitly encoded, and from which they cannot be dissociated.

(c) This substrate incorporates complex **mental constructions**, largely based on such **imaginative phenomena** as *metaphor*, *metonymy*, *blending*, *fictivity*, and *mental space configurations*.

B. Basic Semantic Notions

(15)(a) Meaning is identified with **conceptualization**, which derives from *embodied human experience* and incorporates *imaginative phenomena*.

(b) Linguistic meaning reflects our ability to **construe** the same situation in alternate ways.

(c) Dimensions of construal include level of **specificity** (conversely, **schematicity**), **perspective**, and **prominence**.

(16) *thing* → *object* → *vehicle* → *truck* → *pick-up truck* → *battered old pick-up truck*

(17)(a) *Come on up into the attic!* (b) *Go on up into the attic!*

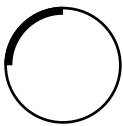
(18)(a) An expression's meaning is a function of both the conceptual content evoked—its conceptual **base**—and how that content is construed.

(b) As one kind of prominence, an expression focuses attention on a particular substructure within its base, called the **profile**.

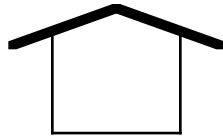
(c) An expression's profile is the entity it **designates** (its **conceptual referent**).

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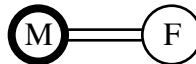
(a) *arc*



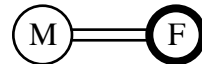
(b) *roof*



(c) *husband*

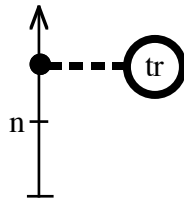


(d) *wife*

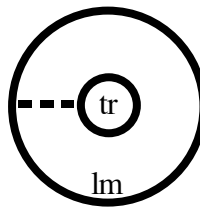


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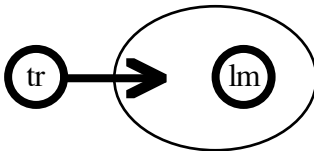
(a) *smart*



(b) *in*



(c) *approach*



(d) *throw*



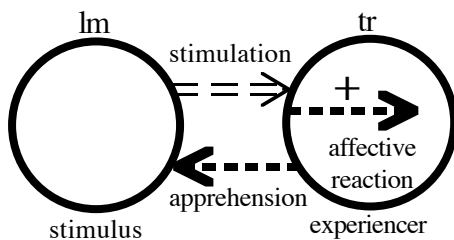
(21)(a) When a *relationship* is profiled, degrees of prominence are conferred on its **participants**.

(b) A *primary focal participant*, called the **trajector** (tr), is the participant an expression is concerned with locating or characterizing.

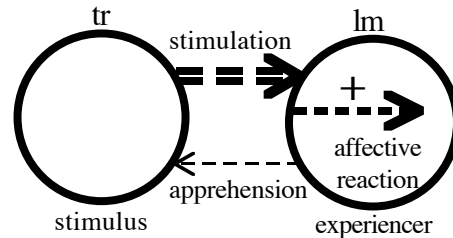
(c) A *secondary focal participant*, called a **landmark** (lm), is often invoked for this purpose.

(22)

(a) *like*



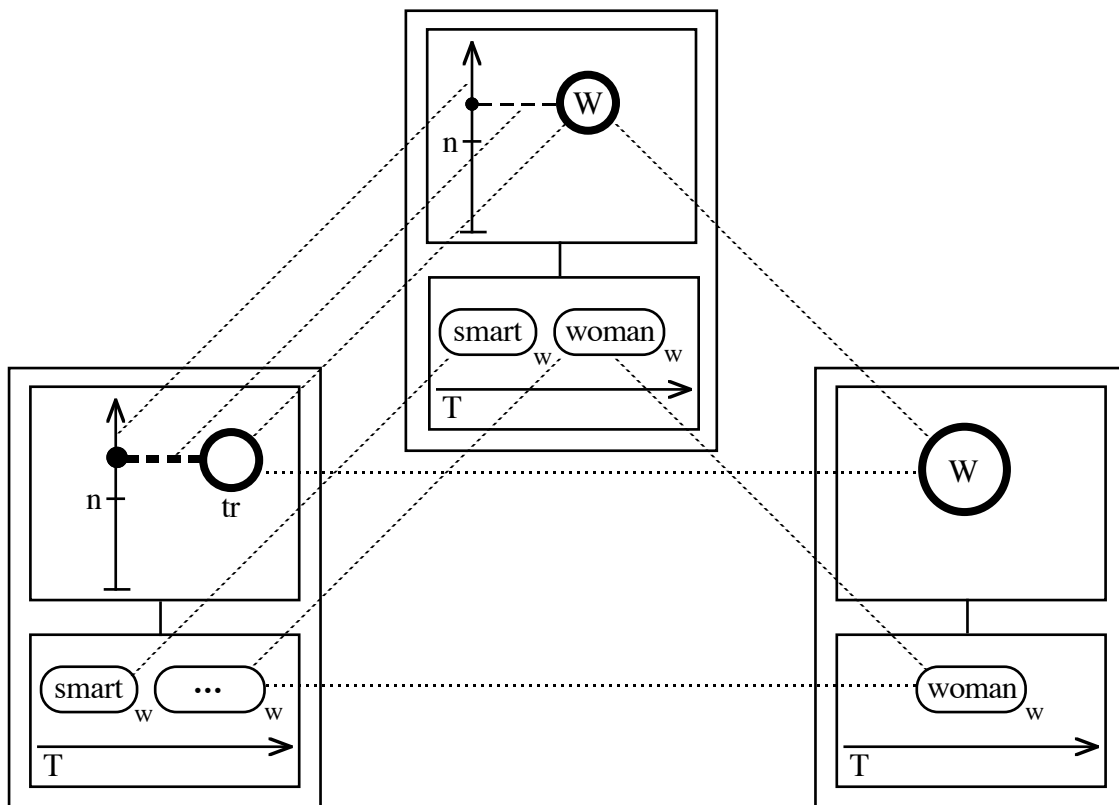
(b) *please*



- (23) An expression's grammatical category is determined by the nature of its profile (not its overall conceptual content): A noun profiles a thing. A verb profiles a process (a relationship followed in its evolution through time). Adjectives, adverbs, and prepositions profile various sorts of relationships that are non-processual (or atemporal).
- (24) A subject is a nominal expression that specifies the **trajector** of a profiled relationship. An object specifies its **landmark**.

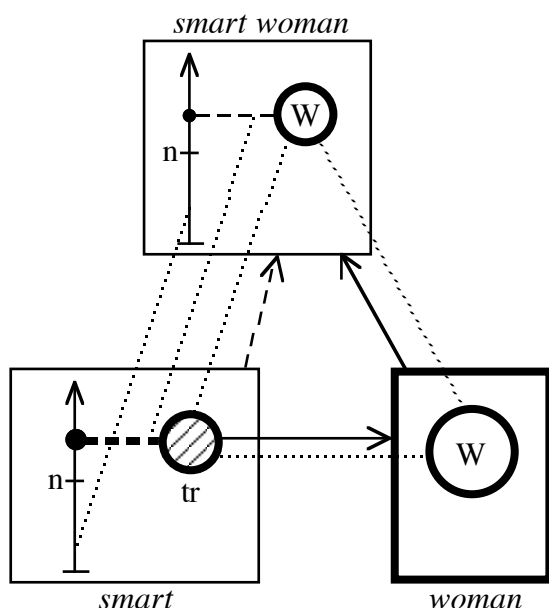
C. Prototypical Constructions

- (25) A **construction** is an *assembly of symbolic structures linked by correspondences and categorizing relationships*.
- (26) Typically, two **component** symbolic structures are *integrated*—at both poles—to form a **composite** symbolic structure. Integration is effected by **correspondences** equating elements of the two component structures. The composite structure is formed by superimposing corresponding elements and merging their specifications.
- (27)



- (28) It is typical for one component structure to contain a *salient schematic element* which the other component structure elaborates. This element, called an **elaboration site** (or **e-site**), corresponds to the profile of the elaborating structure.

(29)

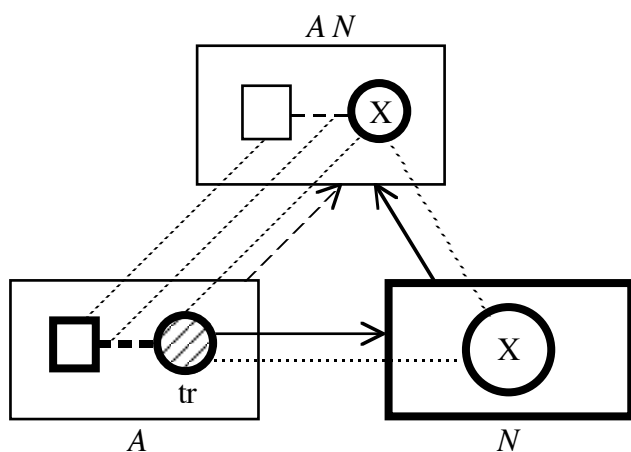


(30)(a) The composite structure stands in the foreground as the structure primarily employed for higher level purposes; the component structures serve as stepping stones for arriving at it. This is the asymmetry between a categorizing structure and the target of categorization.

(b) In accordance with partial compositionality, the component structures serve to evoke and motivate facets of the composite conception, not as building blocks for constructing it.

(31) In a construction, it is usual for the profile of one component structure to correspond to the composite structure profile. The component structure whose profile is thus inherited at the composite structure level is called the **profile determinant**.

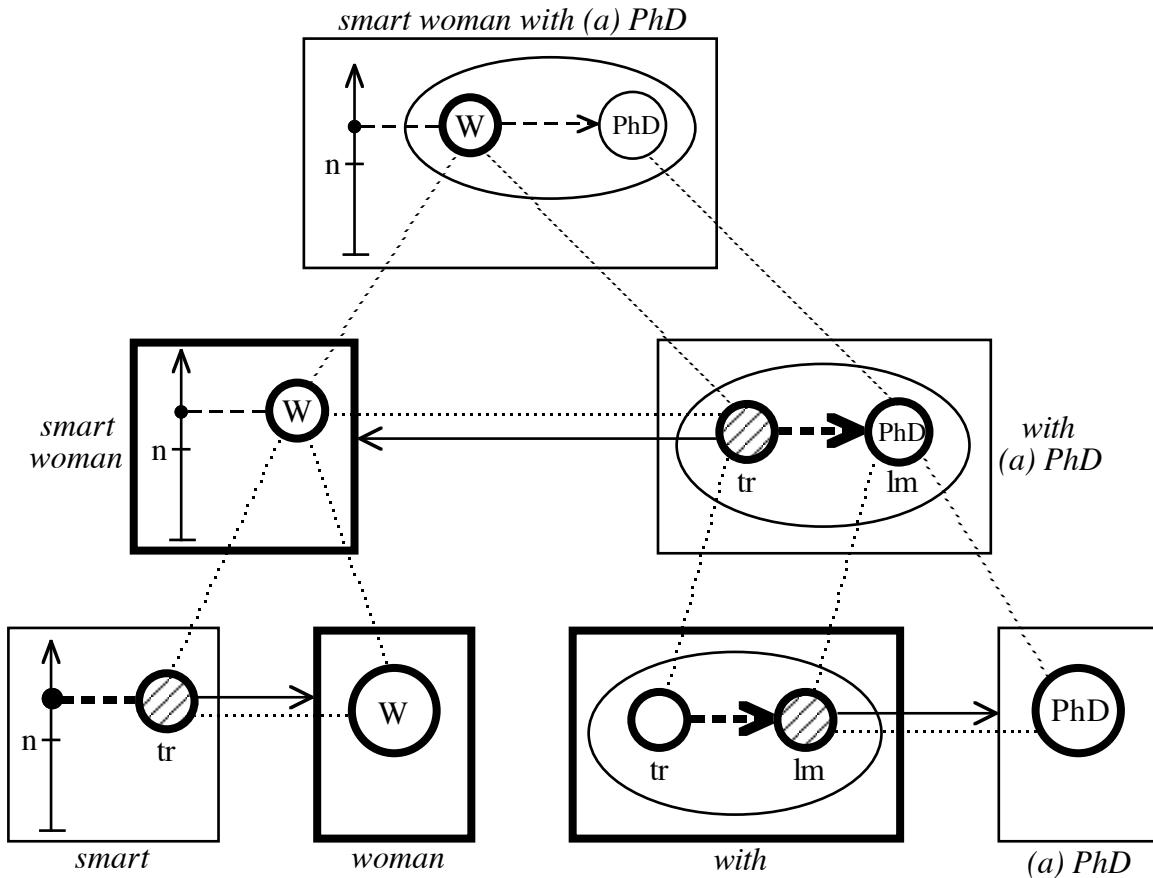
(32)



(33) A constructional schema's semantic pole constitutes a **constructional meaning** (its contribution to the overall meaning of composite expressions). *Organizational properties* like correspondences and profile determinance are a function of the entire construction.

(34) Complex assemblies usually exhibit multiple **levels of organization**, where a composite structure at one level functions in turn as component structure at a “higher” level. Unlike the syntactic “tree structures” of generative grammar (conceived as purely formal objects), the resulting hierarchies consist solely of *symbolic structures*, each with both a form and a meaning. Grammatical **constituency** is simply the order in which simpler symbolic structures are progressively integrated to form more complex ones.

(35)



(36)(a) **Head:** the *profile determinant* at a given level of organization.

(b) **Complement:** a component structure which *elaborates* a salient substructure of the head.

(c) **Modifier:** a component structure with a salient substructure *elaborated by* the head.

D. Non-Prototypical Constructions

(37) Properties of canonical constructions:

(a) There are two component structures.

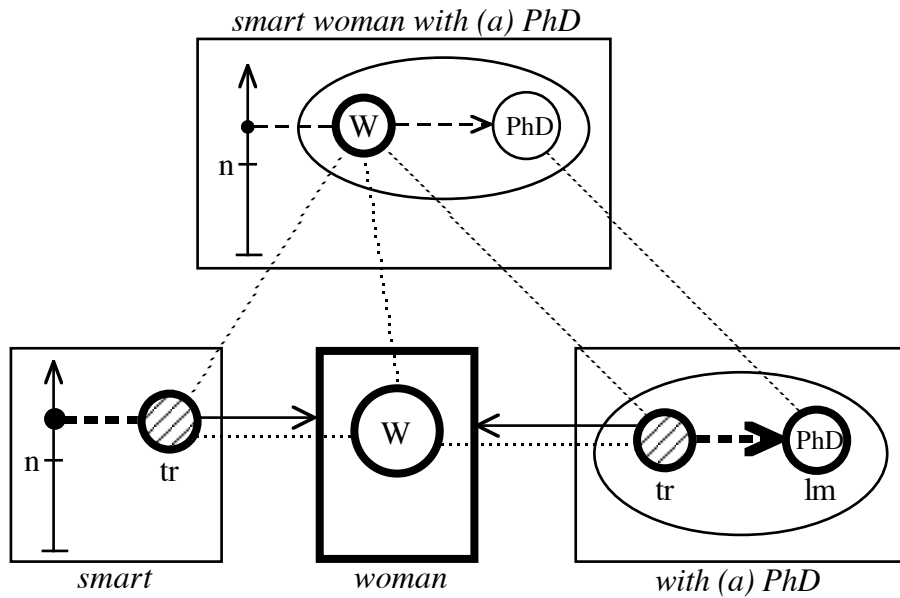
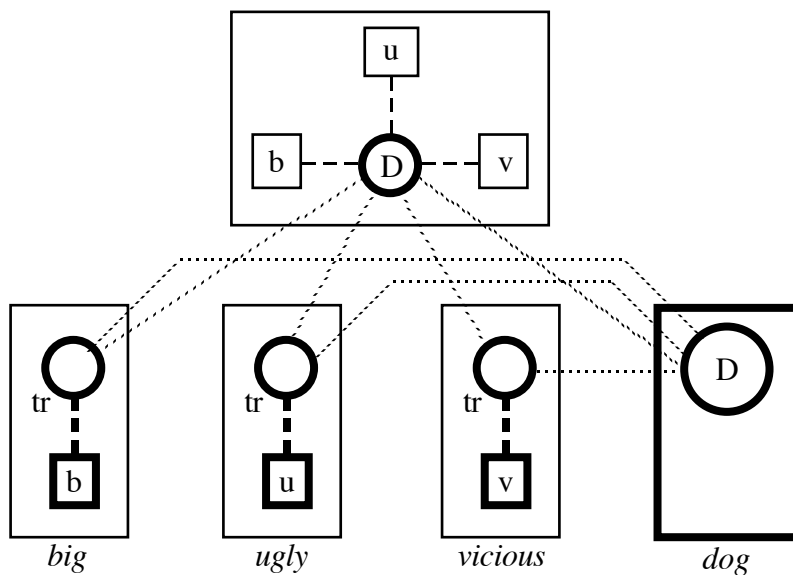
(b) One component profiles a thing, the other a relationship.

(c) The nominal profile corresponds to a focal participant of the relationship.

(d) That participant is schematic, being elaborated by the nominal component.

(e) The composite structure inherits its profile from one of the two component structures.

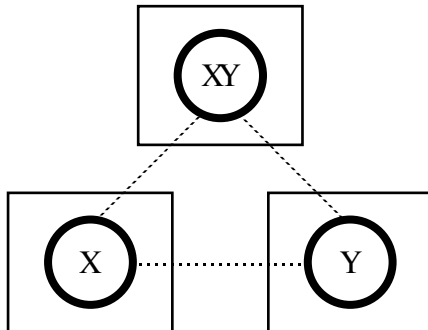
(38)

(39)(a) *smart woman / with a PhD*(b) *smart / woman / with a PhD*(40)(a) *They're looking for a **smart woman** with a PhD, not **one** with just a masters.*(b) *A **smart woman** with a PhD is easier to find than a brilliant **one** with just a masters.*(41) *big / ugly / vicious / dog*

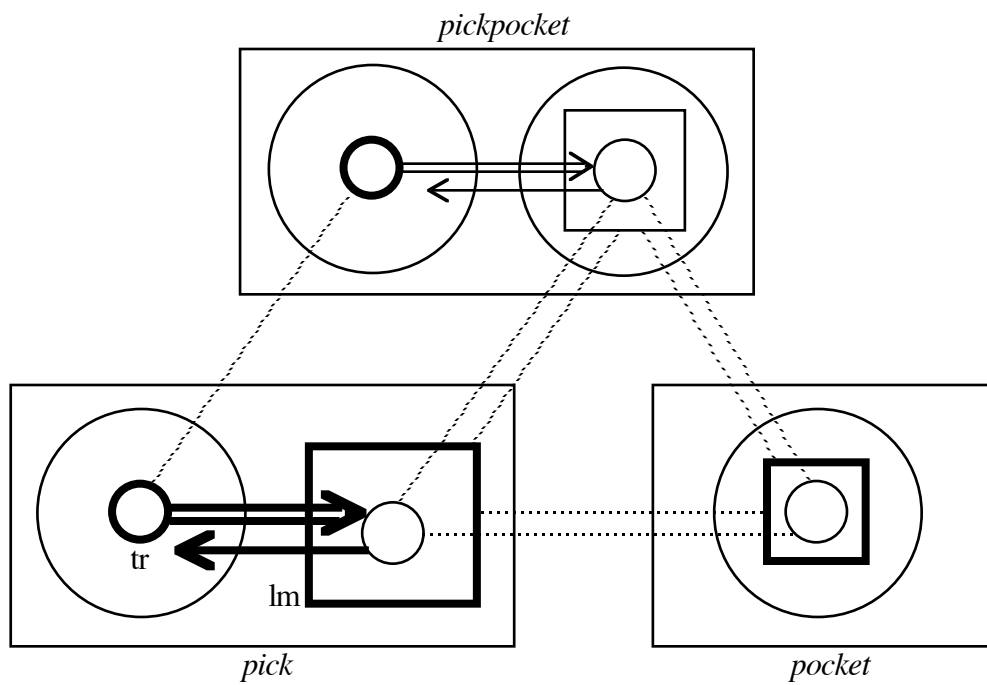
(42) A construction may lack a (unique) profile determinant for various reasons, e.g. because the component structure profiles correspond to one another, or because the composite structure profile is distinct from that of any component.

(43) pussy cat; the famous French novelist Marcel Proust

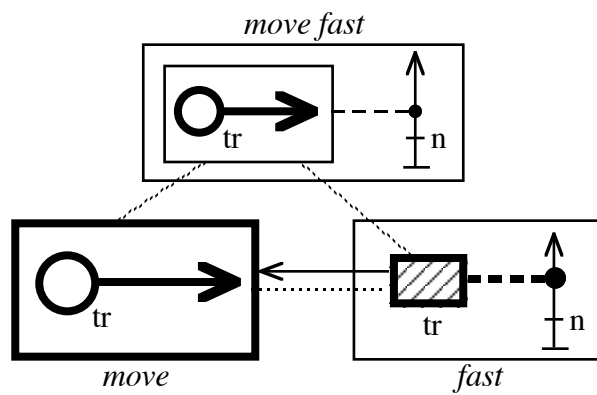
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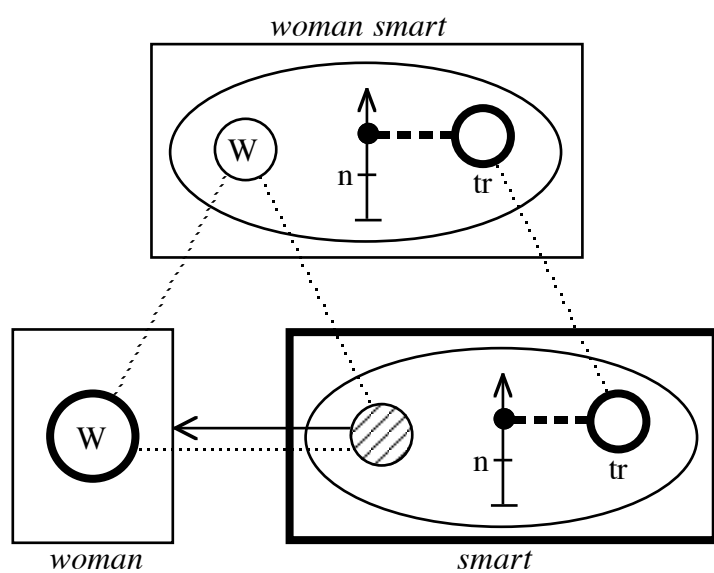
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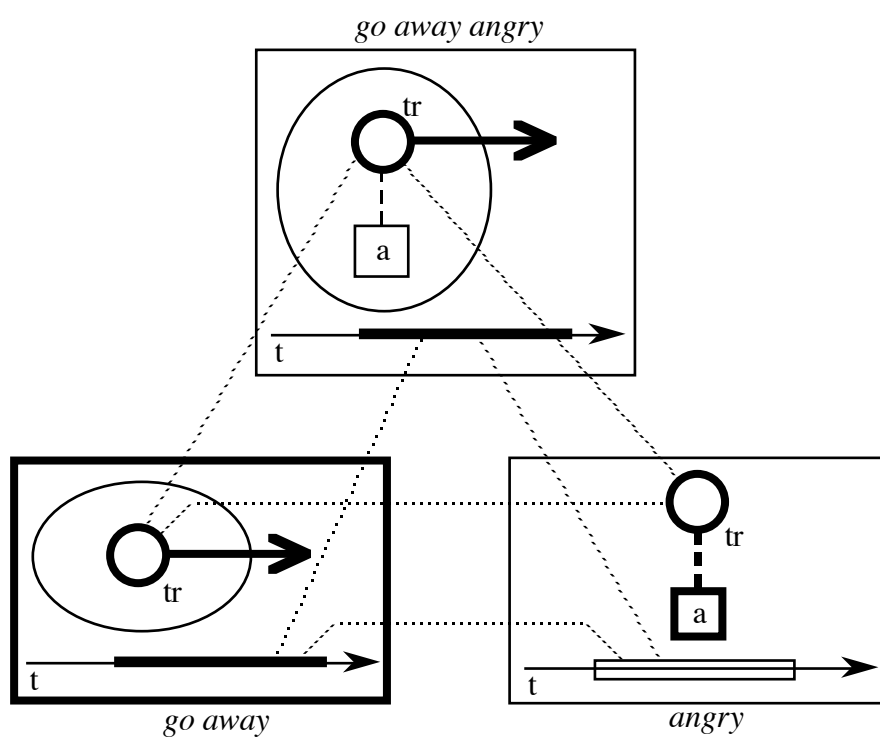
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(47)



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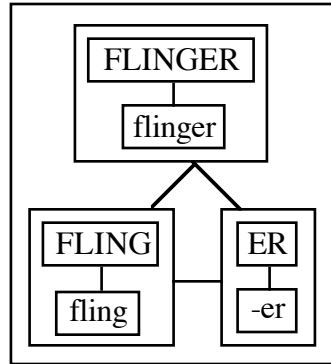


(49)(a) Fixed expressions vary in their degree of **analyzability**, i.e. the extent to which speakers are cognizant of the semantic contributions of component elements.

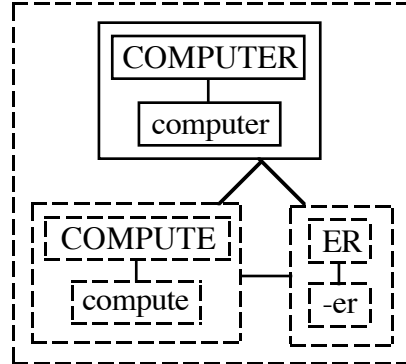
(b) *flinger* > *complainer* > *computer* > *propeller* > *drawer*

(50)

(a) Fully Analyzable Expression

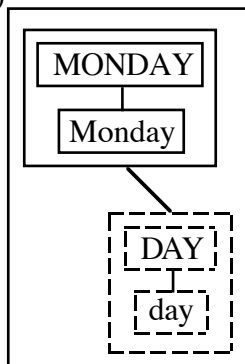


(b) Partially Analyzable Expression

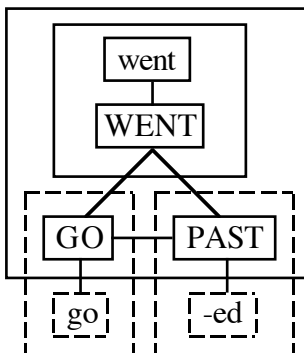


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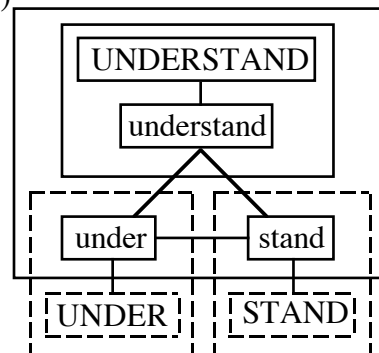
(a)



(b)



(c)



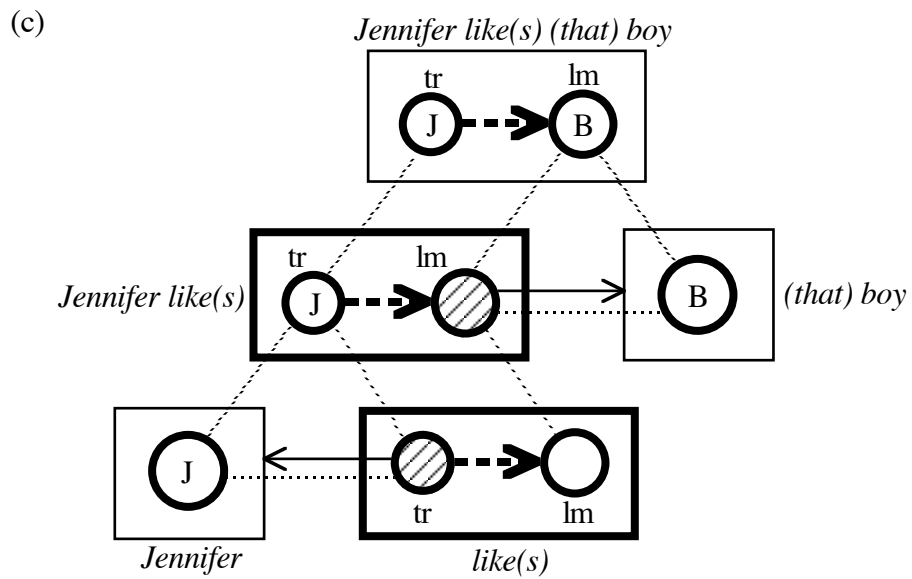
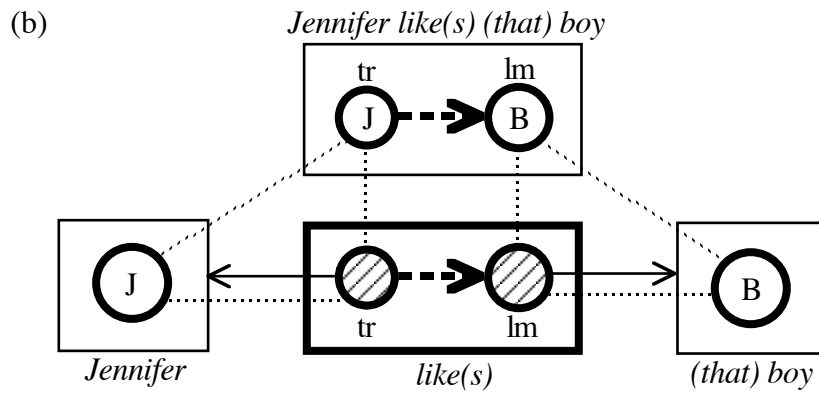
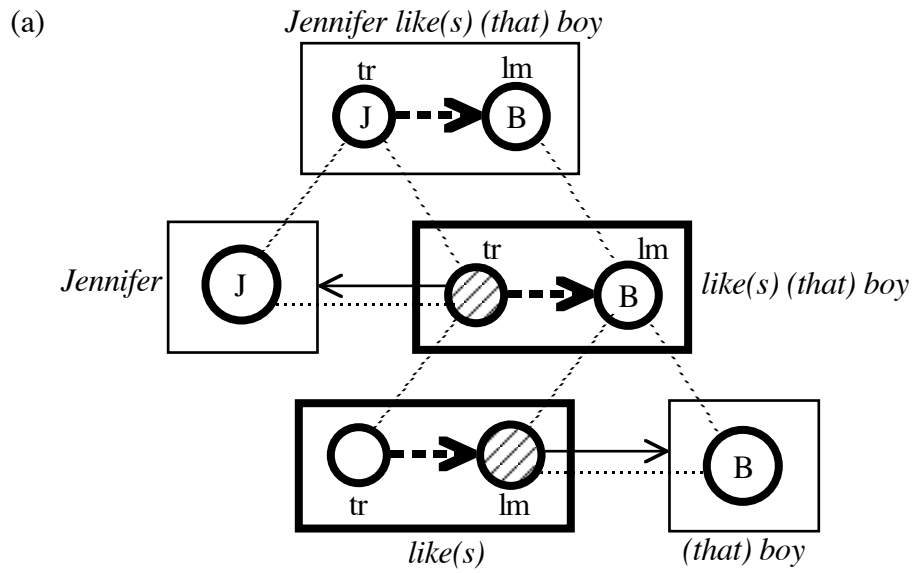
E. Grammatical Dependencies

(52)(a) The CG account of **grammatical dependencies** is *non-configurational*. They reside in *correspondences* between conceptual elements.

(b) A **subject** is a nominal expression whose profile corresponds to the *trajector* of a profiled relationship.

(c) An **object** is a nominal expression whose profile corresponds to the *landmark* of a profiled relationship.

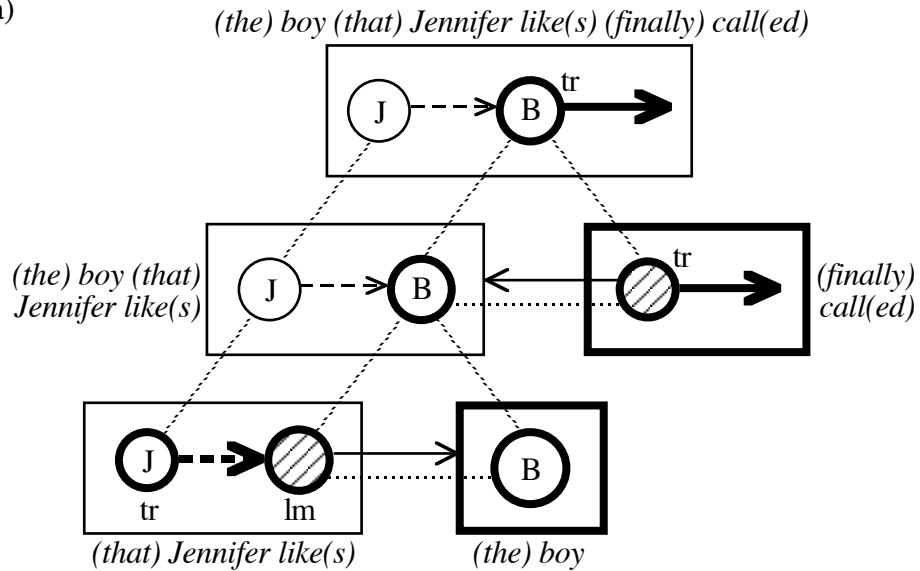
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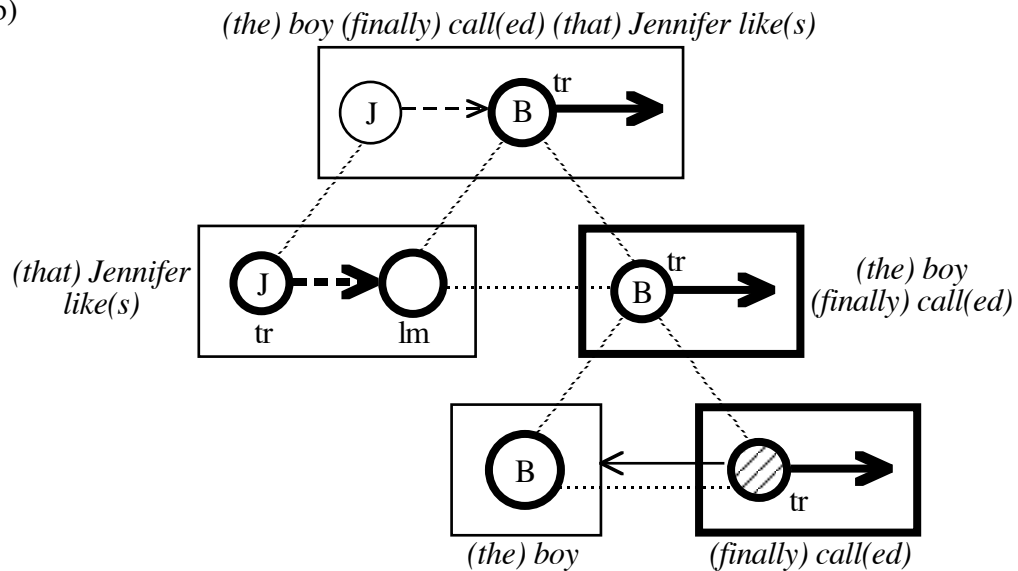
- (54)(a) *That boy Jennifer likes (this one she doesn't).*
 (b) *Jennifer likes, and Sharon really admires, the boy who lives next door.*
 (c) *The boy that Jennifer likes finally called.*
 (d) *The boy finally called that Jennifer likes.*

(55)

(a)

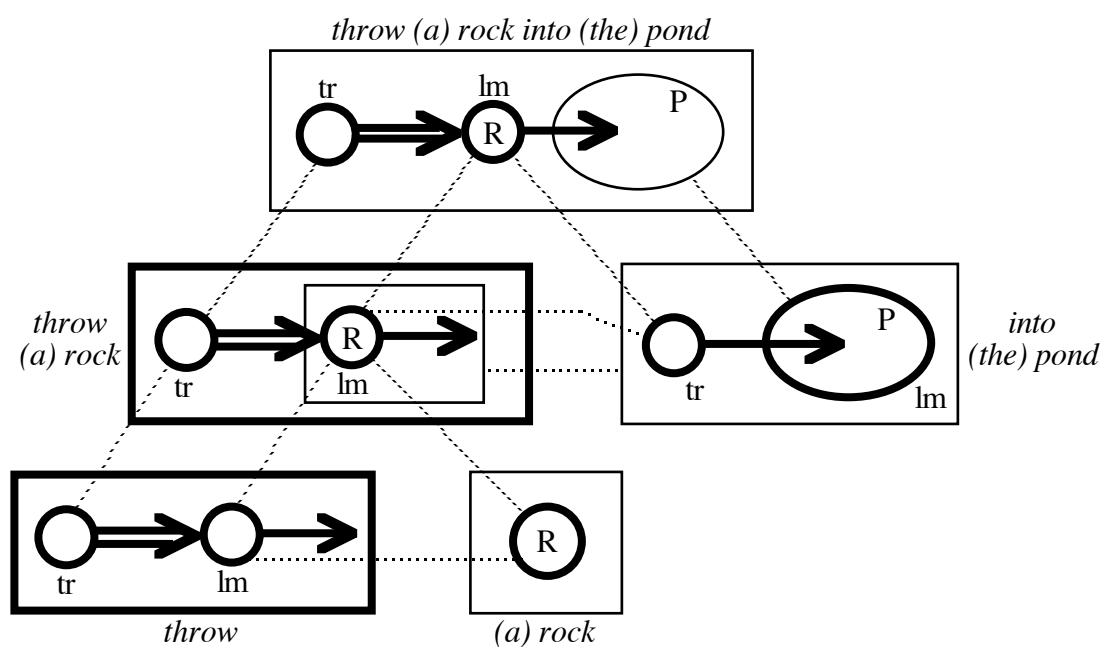


(b)



(56) *She threw a rock into the pond.*

(57)

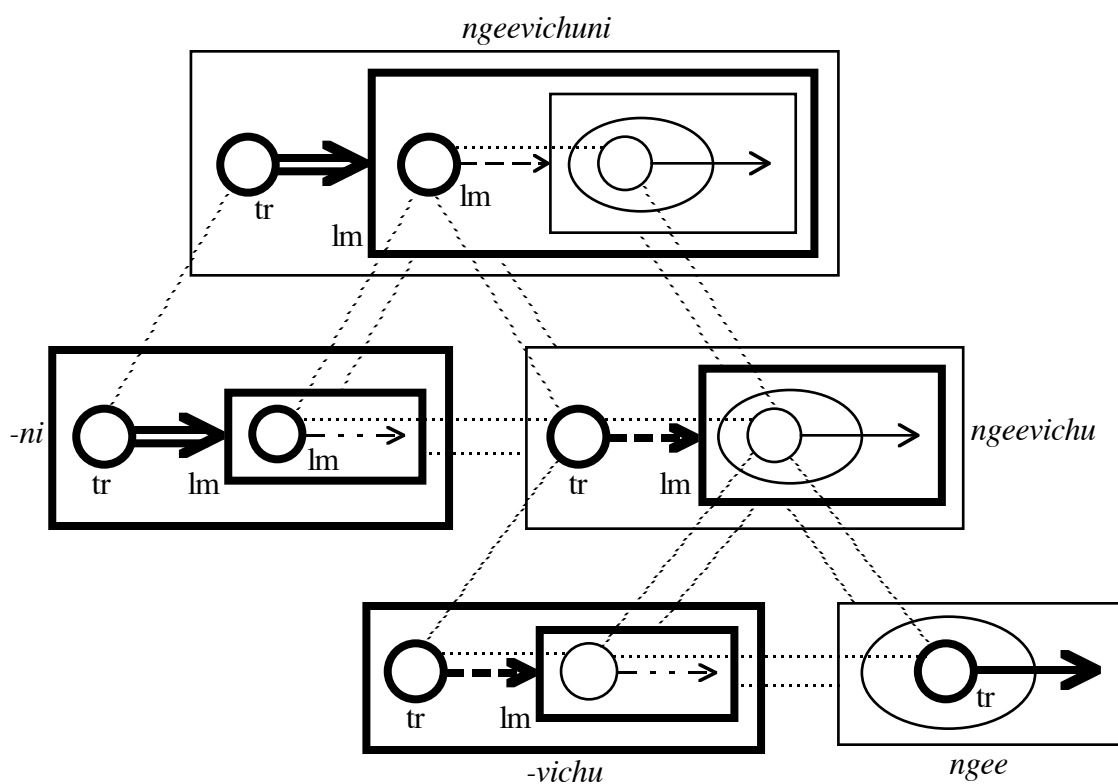
(58) *Noo poy ngee-vichu-ni-q.*

I him leave-want-make-TNS

‘I made him want to leave.’

[Luiseño]

(59)



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