

6.2.s. Summary

6.2.1. In addition to proper names, the individual terms include definite descriptions and various non-anaphoric pronouns. They do not include certain other noun phrases, quantifier phrases in particular. We will speak of the “person, place, thing, or idea” referred to by an individual term by using such words as *object*, *entity*, *individual*, and *thing*, understanding these to apply to anything that might be named. Common nouns are also not individual terms. Indeed, they may be labeled general terms to distinguish their function of indicating a class of objects from the function of individual terms, also called singular terms, which is to refer to a single individual in a definite way. The word *term* will often be used as shorthand for *individual term*. Definite descriptions refer by way of a description only when there is one and only one object satisfying the description; that is, an object satisfying the description must exist and be unique. This is often so for ordinary definite descriptions only when the description is understood to contain an implicit qualification that the object be the most salient one satisfying other parts of the description. An individual term is understood to always have a reference value; when the term is undefined, its reference value is the empty or nil value.

6.2.2. A functor is an operation that takes one or more individual terms as input and yields an individual term as output. Just like other operations, it expresses a reference function, which yields reference values when applied to reference values. Although a reference function is a particular sort of function we will use that term primarily for reference functions. The operation of combining a functor with input is application, and the individual term that is the output is a compound term. For any functor, there will almost always be some terms for which the application of the functor yields an undefined term. Although this problem can be reduced by limiting the input of functors to objects of certain types, we will not include this complication in our account of logical forms.

6.2.3. It can be difficult to recognize the individual terms that fill the places of a predicate or a functor. It is important to include in a definite description all the modifiers that are part of it. Some of these may be prepositional phrases or relative clauses which follow the common noun. In some cases, a prepositional phrase in this position might either be part of a definite or modify a verb; but such an ambiguity cannot arise with relative clauses so a prepositional phrase can be made into a relative clause in order to test what it modifies. Relative clauses must therefore be part of the definite

description when they are restrictive; on the other hand, non-restrictive clauses (the sort set off by commas) are analyzed using conjunction.

6.2.x. Exercise questions

1. Analyze each of the following sentences in as much detail as possible.
 - a. *Reagan's vice president was the 41st president.*
 - b. *Tom found a fly in his soup and he called the waiter.*
 - c. *Tom found the book everyone had talked to him about and he bought a copy of it.*
 - d. *Wabash College is located in Crawfordsville, which is the seat of Montgomery County.*
 - e. *Sue and Tom set the date of their wedding but didn't decide on its location.*
2. Synthesize idiomatic English sentences that express the propositions associated with the logical forms below by the intensional interpretations that follow them.
 - a. $(\text{Sab} \wedge \neg \text{Sa}(\text{fc})) \rightarrow \neg \text{b} = \text{fc}$
 [S: λxy (x *has spoken to* y); f: λx (x's *father*); a: *Ann*; b: *Bill*; c: *Carol*]
 - b. $(\text{B}(\text{fa})(\text{mb}) \vee \text{S}(\text{ma})(\text{fb})) \rightarrow \text{Cab}$
 [B: λxy (x *is a brother of* y); C: λxy (x *and y are cross-cousins*); S: λxy (x *is a sister of* y); f: λx (x's *father*); m: λx (x's *mother*); a: *Ann*; b: *Bill*]
 - c. $\text{Pab}(\text{m}(\text{sb})(\text{sc})) \wedge \text{Pac}(\text{m}(\text{sb})(\text{sc}))$
 [P: λxyz (x *persuaded y to accept* z); m: λxy (*the best compromise between x and y*); s: λx (x's *proposal*); a: *Ann*; b: *Bill*; c: *Carol*]

Homework assigned Fri 10/21 and due Mon 10/24

(i) Analyze: *If the speaker after Sam is the author of the book that I just read, I'll ask him to explain a passage in it*

(ii) Use derivations to check the following:

$$A \rightarrow (B \rightarrow C) \Rightarrow (C \wedge A) \rightarrow B$$