

More on Lousy Teachers and Beautiful Dancers

An Example from Last Week

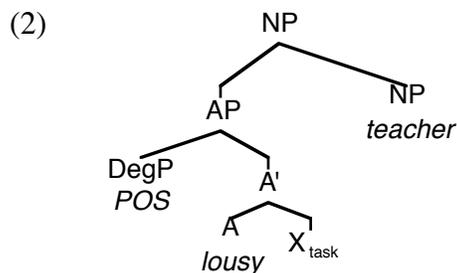
- (1) John is a lousy teacher.
All the teachers are mathematicians and vice versa.
Therefore, John is a lousy mathematician. INVALID

Intensionality?

Standard assumption: *lousy* must be an intensional adjective (i.e. it takes the intension of its noun as its argument). BUT: we have not seen a credible meaning for *lousy* of this type, and it seems the McConnell-Ginet/Larson suspicion is quite right that there couldn't be such a meaning.

Context-Dependency?

Hidden context-dependency of the adjective (in addition to its hidden degree argument).
Irene's tree:



In the usual case, the task that one is lousy at is suggested by the head noun of the NP. In a neutral context, the NP in (2) is true of an individual *x* iff *x* is a teacher and lousy at (teaching).

We expect the existence of examples where the noun does not supply the understood task, where instead the task is given by other information in the context:

- (3) Bill is a lousy candidate (for the job).
[Maybe Bill is quite good at being a candidate, but just doesn't qualify for the job.]
- (4) The most experienced woman should get the job.
[Clearly, we are not looking for the person who has lots of experience at being a woman.]

Siegel's Problem (cited by Irene last time):

If one is watching a checker game among musicians, it might be appropriate to say *The lutist is good*, meaning 'good as a checkerplayer'. Under the same circumstances one could not say *That is a good lutist* and still mean 'That is a lutist who is good as a checkerplayer'. A good lutist can only be good as a lutist or good in general.

[S]uppose there were a restaurant that had a reputation for hiring cooks from all over the world. If, upon visiting the kitchen, a regular patron saw someone unfamiliar wearing a fez, he might ask *Is the Turk new?* meaning 'Is the Turk a new cook', or 'new member of the staff'. He would not say *Is that a new Turk?* The proprietor could answer him *No, the Turk is old*, meaning that the Turk is old as a cook or as a member of the staff. It would be inappropriate as well as rude for him to reply to the patron, *No, he's an old Turk*, because prenominal *old* is not vague. It must mean either a 'veteran Turk' if that made sense, or, more likely, an 'aged Turk', that is old in general. Prenominal *old* cannot be interpreted as applying to any pragmatically plausible CN the way *old* in the predicate can.

Possible counterexamples to Siegel's claim:

(5) (Michel)

For our checker team, we need at least one lutist who is good at that game.

Well, I don't think there's a single good lutist in the orchestra, but there is an excellent violinist.

(6) (Restaurant proprietor)

No, actually that's the old Turk. I have a couple of new Turks starting next week. They're supposed to make fantastic kebabs.

Problem #1: Failure of Subsectivity

The context-dependent intersective approach predicts that the head noun predicate should hold of the individual in question. That seems wrong:

(7) John is an excellent judge of character.

(8) a. Kai is not a typist, he is a professor. In fact, he is quite lousy at typing.
b. Kai is a lousy typist.

(9) a. ??Kai is a lousy typist; that's why he is not a typist but a professor.
b. ??Kai is not a typist because he's a lousy typist.

The Port-Royal Puzzle

- (10) Dutchmen are good sailors.
->? Dutchmen are sailors.

Carlson (1977: 75ff, 295ff) thought this was a problem peculiar to bare plural generics. He assumed that the following inferences do go through:

- (11) Some Dutchmen are good sailors.
->? Some Dutchmen are sailors.

All Dutchmen are good sailors.
->? All Dutchmen are sailors.

Those Dutchmen are good sailors.
->? Those Dutchmen are sailors.

Lots of Dutchmen are good sailors.
->? Lots of Dutchmen are sailors.

John is a good sailor.
->? John is a sailor.

- (12) My chisel is a good screwdriver.
->? My chisel is a screwdriver. [Roger Higgins, pc to Karina Wilkinson]

- (13) Dutchmen are good as sailors.
Dutchmen make good sailors.

->? Dutchmen are/make sailors.

Carlson 1977 (p. 300ff.)

- (14) Policemen are excellent witnesses.
Dogs are fantastic companions.
Cubans are firm negotiators.
Australians are desirable friends (to have).
Seals are amusing entertainers.

(15) *Dogs make pets.

Dogs make $\left\{ \begin{array}{c} \text{excellent} \\ \text{good} \\ \text{desirable} \\ \text{entertaining} \\ \text{infuriating} \end{array} \right\}$ pets.

Dogs make $\left\{ \begin{array}{c} \text{brown} \\ \text{four-legged} \\ \text{angry} \\ \text{tall} \end{array} \right\}$ pets.

The CN cannot be any CN at all, but must, loosely, denote a role or a function that one may participate in. The sentences [below] are quite odd, as the underscored CN apparently does not denote a role one may 'step into', in spite of modification by an adjective of the appropriate class.

- (16) a. ??Australians are excellent natives of Queensland.
 b. ??Dutchmen are great females.
 c. ??Books are amusing paperbacks.

However, if one were casting parts in a film, and were seeking individuals to play natives of Queensland or females, (a) and (b) could well be used to recommend where to look for the best prospects. It is far more difficult to imagine a similar circumstance in which (c) would be usable. This is not due to the inanimacy of the subject NP, however. If one chooses a nominal that seems to denote a kind of object that has some sort of function associated with it, inanimate subjects are entirely acceptable.

- (17) a. Pipe wrenches are fantastic door-stops.
 b. Coffee mugs are great flower-pots.
 c. Pillows are poor weapons.

Carlson's solution to the puzzle (not discussed here) is claimed not to be one by Schubert & Pelletier (1987: Fn. 33). Wilkinson's representation for the Dutchman-sentence is

$$\text{Gen}_i \left(\text{dutchman}(x_i) \ \& \ \text{sailor}(x_i) \right) \left(\text{good-sailor}(x_i) \right)$$

and thus also fails to predict the general non-subsectivity fact.

Problem #2: Adjectives without a Task Argument

Two important properties of *good*-adjectives: (i) task-readings in predicative position, (ii) readings involving understood, contextually salient tasks.

- (18) skillful/good at playing/dancing/being a friend

- (19) That lutist is good. (task reading available)
That checkerplayer is skillful.
- (20) Arthur is a just ruler.
Arthur is a just king.
- (21) Hemingway is an excellent writer.
Hemingway is a excellent author.

There are other adjectival modifications that do not share these properties.

- (22) Olga is a beautiful dancer.
John is an old friend.
- (23) *beautiful at dancing
*old at being a friend
- (24) That dancer is beautiful. (no task reading)
That friend is old.
- (25) Hemingway is a beautiful writer.
Hemingway is a beautiful poet.
Hemingway is a beautiful author.
- (26) Hemingway was an ugly character but a beautiful writer.
Hemingway was an ugly character but a beautiful poet.
Hemingway was an ugly character but a beautiful author.
- (27) – Do you think Suzanne is a good dancer?
– Yes, she is good.

[But cf.

- Do you think Suzanne is a beautiful dancer?
– Yes, she is beautiful.]

We need another analysis to account for (i) the non-subjective readings of *good*-adjectives and for (ii) the semantics of *beautiful*-adjectives.

Intuition

- (28) Olga's dances are beautiful.
Olga dances beautifully.
Olga is a beautiful dancer.
Olga is beautiful when she dances.
Olga is beautiful qua dancer.
Olga is beautiful as a dancer.
Olga makes a beautiful dancer.
- (29) beautiful dancer
□▷ someone x such that generally if x dances/is a dancer, x does so beautifully

To develop an approach based on this intuition, we need a way of treating *dancer* as involving a stage-level/episodic predicate (which can be the host of the manner predicate *beautiful*) and a generic quantifier. One would hope that such an approach would involve the fact that *dancer* is a deverbal formation and some idea of the semantic contribution of the suffix *-er*.

On the analysis of *-er* see M. Rappaport & B. Levin (1992) "*-er* Nominals: Implications for the Theory of Argument Structure" In T. Stowell & E. Wehrli (eds.) *Syntax and Semantics* vol. 26, Academic Press.

Larson's Event-Based Approach (Quick Sketch)

1. Nouns like *dancer* are two-place predicates: an individual argument and an event argument.

- (30) $\llbracket \text{dancer} \rrbracket = \lambda x. \lambda e. e \text{ is a dancing by } x$

2. Adjectives like *beautiful* can apply to events or individuals. When an event is said to be beautiful, that means that it ... Other adjectives unambiguously apply only to individuals or only to events.

3. Adjectival modification by *beautiful* applied to *dancer* is ambiguous. In essence, two different composition possibilities are available:

- (31) $\llbracket \text{beautiful dancer} \rrbracket = \lambda x. \lambda e. e \text{ is a dancing by } x \dots x \text{ is beautiful}$
 $\llbracket \text{beautiful dancer} \rrbracket = \lambda x. \lambda e. e \text{ is a dancing by } x \dots e \text{ is beautiful}$

4. Of course, once noun phrases like *beautiful dancer* are used in the sentence, both the individual and the event argument need to be taken care of. The next step is event quantification. The usual case involves generic quantification. And, the adjective-noun configuration is not interpreted as conjunction. The idea is that *beautiful dancer* ends up as a predicate that is true of any x such that generically, when x dances a dance e , the dance e is beautiful. There is some interesting “mapping theory” discussion of how it happens that dancing ends up in the restriction of the generic quantification and that beauty ends up in the nuclear scope.

5. The event-story is extended to nouns like *friend*, which are assumed to have a state argument, which in turn can be the target of adjectives like *old*. Here, we don't have a deverbal element, it seems.

Event Quantification

Idea based on Chierchia (1995). Individual-level predicates involve generic quantification over situations.

➔ No difference in Chierchia between habitual present tense and individual-level nominals?

(32) Julian smokes.
Julian is a smoker.

(33) What does Julian do when he is nervous?
He smokes. #He is a smoker.

➔ What is the difference between deverbal nominals and others?

(34) Julian is a writer.
Julian is an author.

➔ Busa (unpublished work based on her 1996 Brandeis thesis) suggests that nominals differ in the exact nature of the quantifier, presumably the modal parameters of the generic quantification.

➔ Are there cases where the event argument is not captured by a generic quantifier?

(a) frequency adjectives as in

Mary is an occasional/habitual/frequent/moderate dancer/smoker/drinker

vs. *Mary is a habitual/frequent/moderate violinist/alcoholic*

-> read Stump 1981, to be discussed in a future session

(b) stage-level uses of agentive nominals?

- (35) a. John is gambler.
b. The gamblers at the table were laying down their hands.

D. Kastovsky (1977) "Word-Formation, or: at the Crossroads of Morphology, Syntax, Semantics, and the Lexicon" *Folia Linguistica* 10.

- (36) When we bumped into the violinist on Sunset Boulevard, (Busa)
a. he was playing Vivaldi on a street corner.
b. he was selling hot-dogs on a street corner.

- (37) When I saw a pedestrian on Sunset Boulevard,
a. he was about to get run over by a truck.
b. !!he was selling hot-dog on a street corner.

- (38) a. A pedestrian was run over yesterday. (Busa)
b. A rioter was arrested yesterday.
c. A passenger was sick.

Mapping Theory

Material low in the tree is mapped into the nuclear scope, material high becomes restrictor material.

Adjective movement.

What about the noun?

Queries

From Stanley & Szabo's 1997 LSA summer institute class handout:

- (39) [F]riendships can be long, eventful or interrupted.
?? Peter is a long/eventful/interrupted friend.
- (40) Olga's dancing may be beautiful in virtue of her partner, her dress, the light, etc. Many of these cases are not properly described by
Olga is a beautiful dancer.

F. Moltmann (pc to Larson, cited in LOT winter school lectures):

- (41) Olga's dances are long.
*Olga dances long.
*Olga is a long dancer.

In general, one may ask the question "Which form of event predicate is basic?"

- (42) Olga's dances are beautiful.
Olga dances beautifully.
Olga is a beautiful dancer.

Larson seems to assume that the adverbial form is more basic than the adjectival predicate applied to the event description. But why?

- (43) Olga's Tänze sind schön.
Olga tanzt schön.
Olga ist eine schöne Tänzerin. (only intersective!)

Two sources then of potential overgeneration that need to be constrained:

- ➔ Chierchia's abstract stage-level predicates should be able to host adjectives
- ➔ Adjectives that can be predicated of event descriptions should be able occur in the *Olga* construction.

An Occasional Sailor, The Usual Suspects, Our Daily Coffee

1. Four Uses of Frequency Adjective

- (1) Sentential Quantification Bolinger's "stroboscopic singular"

An **occasional** sailor strolled by.
The bar was calm that night except for the **odd** altercation over whose round it was.

- (2) Inner Quantification

Sally is a **regular** customer of amazon.com.
Louis arrested the **usual** suspects.

- (3) Generic

An **occasional** cup of coffee is a good thing.
John's **daily** jog along the river keeps him in shape.

- (4) Definite Instance

John is enjoying his **daily** cup of coffee.
I saw Marlowe last night with the **inevitable** glass of Bourbon in front of him.

2. Frequency Adverbials

- (5) $\llbracket \text{A sailor strolled by} \rrbracket^t = 1$ iff

$$\exists x \left(\llbracket \text{sailor} \rrbracket^t(x) \ \& \ \llbracket \text{strolled-by} \rrbracket^t(x) \right)$$

- (6) $\llbracket \text{occasionally} \rrbracket^t =$

$\exists p$. there are several non-overlapping sub-intervals t' of t such that $p(t') = 1$

- (7) $\llbracket \text{Occasionally, a sailor strolled by} \rrbracket^t = 1$ iff

there are several non-overlapping sub-intervals t' of t such that

$$\exists x \left(\llbracket \text{sailor} \rrbracket^t(x) \ \& \ \llbracket \text{strolled-by} \rrbracket^t(x) \right)$$

3. Sentential Quantification

Potentially similar cases often cited as prime examples of non-compositionality or the unreality of semantics (Chomsky, Hornstein). Here's Higginbotham's report and response (1993, "Grammatical Form and Logical Form", *Philosophical Perspectives* 7 (*Language and Logic*), pp. 173-196):

One argument of this type, which has been remarkably persistent, is based on cases like (8), modeled after those in Hornstein (1991) and used also in Hornstein (1984):

(8) The average man [pays his taxes/has 2.2 children]

The example is not obviously syntactically different from

(9) The tall man in the corner [pays his taxes/has 2.2 children]

Examples of this kind have been used to argue that linguistics has no need of "ontology" or "real-world reference", because if it did it would involve itself in the silly conclusion that there is some person *x* who is the average man – which is nonsense.

[...]

Consider again Hornstein's example (8). We do indeed have that 'average' and 'tall' are adjectives. But it does not follow that (8) and (9) are not syntactically distinguished, even radically so. For it is easy to see that the role of the word 'average' is semantically adverbial rather than adjectival, and we may suppose that this feature of the word is represented at an appropriate linguistic level, where 'average' has moved out of the NP and modifies the sentence. Assume that this representation is as in (10):

(10) [the average] [[*t* man] pays his taxes/has 2.2 children]

In (10), with suitable rules for semantic interpretation, we mirror the logical form, namely

(11) On the average, a man pays his taxes/men have 2.2 children.

There are many similar cases of words with adverbial meaning and adjectival distribution, as 'quick' in (12), or 'occasional' in (13):

(12) I drank a quick cup of coffee.

(13) An occasional sailor strolled by.

Problem

Stump (1981): “In a fairly ‘deep’ approach to syntax, the fact that such adjectives have wider scope than an accompanying indefinite article could be accounted for by identifying adverbial frequency adjectives with frequency adverbs in the syntax as well; that is, frequency adjectives used adverbially could appear underlyingly as ‘higher predicates’, which would attain the status of superficial adjectives only as the result of a lowering transformation. Unfortunately, no one has ever formulated such a transformation successfully.”

Larson (1999): “Despite these virtues, however, the LF raising analysis appears dubious on the whole. For one thing, the proposal offers no account of why an element interpreted outside DP is projected within it initially. On the account being offered, the adjective does not participate at all in the semantic composition of DP. The movement conjectured [...] must efface the original presence of AP within DP, leaving no semantically active trace. But if the adjective does not participate in the semantic composition of DP, then what was it doing in DP in the first place?”

Alternatives

Stump (1981): “[A]dverbial frequency adjectives could be analyzed as determiners: this would allow noun phrases with prenominal frequency adjectives to be ‘built up’ directly, and would afford an explanation of why adverbial frequency adjectives occur only with the indefinite article in singular noun phrases – we could say that existential quantification is a part of the interpretation of such adjectives, and that the indefinite article appearing with such adjectives in singular noun phrases arises syncategorematically, and is otiose (or pleonastic).”

$$(14) \quad \llbracket \text{occasional}_{\text{DET}} \rrbracket^t = \lambda P_{\langle s, e \rangle} \cdot \lambda Q_{\langle s, e \rangle} \cdot \llbracket \text{occasionally} \rrbracket^t \left(\lambda t. \lambda x (P(x, t) \ \& \ Q(x, t)) \right)_q$$

Larson (1999): “Suppose that the adjectives in question do raise, but raise to the article (15a). Suppose further that A/D complex denotes a pair quantifier over events and individuals, with a logical form roughly as in (15b) which may be read as follows: for few pairs <e,x> such that e is a part of some larger contextually given event e’ and x is a customer, e is a strolling-by by x:

- (15) a. $\llbracket \text{DP}_{\text{pan occasional customer}} \rrbracket$ strolled by.
- b. $\text{INFREQ}_{\langle e, x \rangle} \llbracket (e, e') \ \& \ \text{customer}(x) \rrbracket$ [strolling-by(e,x)]

This appears to derive approximately the right reading, but retains our grasp on why the adjective is projected in DP: A/D quantifies over both events and nonevents.”

WCO

Higginbotham actually ignored the crux of Hornstein's argument:

- (16) That his_i income is falling bothers {the/*every} average man_j.

What about frequency determiners and WCO?

- (17) An occasional first-year student dislikes his semantics classes.
Occasionally, a first-year student dislikes his semantics classes.
His semantics classes bother an occasional first-year student.
Occasionally, his semantics classes bother a first-year student.

4. Inner Quantification

This use of frequency adjectives is mentioned by Stump in Fn. 3 but not further explored. He calls it the “deadverbial usage in agent nominalization”. It is to be “semantically related to the corresponding adverbs by the same principles as those relating such (non-frequency) adjectives as *heavy*, *incessant*, and *compulsive* (in *heavy smoker*, *incessant talker*, *compulsive liar*) to *heavily*, *incessantly*, and *compulsively*.”

This use depends on a stage-level reading of the nominal. It lends support to a Chierchia-style analysis of the internal semantics of such nominals.

5. Generics

- (18) An occasional cup of coffee helps keep John awake.
A cup of coffee now and then helps keep John awake.

Temptation

- (19) Drinking an occasional cup of coffee helps keep John awake.
Occasionally drinking a cup of coffee helps keep John awake.
- (20) □-ing an occasional cup of coffee helps keep John awake.
- (21) An occasional beer tastes good on a hot day.
A sporadic crash of thunder is enough noise to keep Fido under the bed all day.

A discontinuous object

(22) daily cup of coffee:

an object that manifests itself at daily intervals and that coincides with a cup of coffee in each of its manifestations

(23) daily newspaper

(24) periodic checkup

(25) $\exists x^o. \llbracket \text{daily} \rrbracket^t(\lambda t. \exists x^s R(x^s, x^o, t)) \ \& \ \exists y^s \exists t (R(y^s, x^o, t) \ \& \ \exists z^o (\text{cup-of-coffee}(z^o) \ \& \ R(y^s, z^o, t)))$

(26) A daily cup of coffee {
 is his only lunch
 breaks up his otherwise dull routine
 tastes good when it's cold out
 is invigorating
 helps him stay awake

(27) A daily cup of coffee {
 had left circular stains on the tablecloth
 is on the counter
 is being made for him
 fell on the floor
 is ready

(28) John's daily cup of coffee {
 had left circular stains on the tablecloth
 is on the counter
 is being made for him
 fell on the floor
 is ready

Stump's analysis depends on "the existence of nonstandard objects with discontinuous spatiotemporal manifestations. Singular indefinite generics like *a periodic checkup* name kinds realized by such objects; noun phrases like *John's periodic checkup*, on the other hand, are definite descriptions of objects of this sort" (p. 245).

(29) John's cup of coffee every day

(30) John's occasional cup of coffee

(31) John's inevitable cup of coffee

Stump Again

- (18) An occasional cup of coffee helps keep John awake.
A cup of coffee now and then helps keep John awake.

Hidden Gerunds?

- (19) Drinking an occasional cup of coffee helps keep John awake.
Occasionally drinking a cup of coffee helps keep John awake.
- (20) ☐-ing an occasional cup of coffee helps keep John awake.
- (21) An occasional cup of his favorite coffee helps keep/kept John awake.
An occasional cup of John's favorite coffee helps keep/kept him awake.
- A cup of his favorite coffee kept John awake.
A cup of John's favorite coffee kept him awake.
- A cup of his favorite coffee is in front of John.
A cup of John's favorite coffee is in front of him..
- (22) An occasional beer tastes good on a hot day.
A sporadic crash of thunder is enough noise to keep Fido under the bed all day.
- (23) Drinking an occasional beer tastes good on a hot day.
There being a sporadic crash of thunder is enough noise to keep Fido under the bed all day.
- (24) The fire department has been conducting a periodic inspection of city elevators since 1950.
- (25) A daily cup of coffee {
is his only lunch
breaks up his otherwise dull routine
tastes good when it's cold out
is invigorating
helps him stay awake
- (26) A daily cup of coffee {
had left circular stains on the tablecloth
is on the counter
is being made for him
fell on the floor
is ready

Stump's Alternative: discontinuous objects

a daily cup of coffee, an occasional beer, a sporadic crash of thunder

(27) daily cup of coffee:

an object that manifests itself at daily intervals and that coincides with a cup of coffee in each of its manifestations

(28) daily newspaper

(29) periodic checkup

(30) $\exists x^o. \llbracket \text{daily} \rrbracket^t (\lambda t. \exists x^s R(x^s, x^o, t)) \ \& \ \exists y^s \lambda t (R(y^s, x^o, t) \ \& \ \exists z^o (\text{cup-of-coffee}(z^o) \ \& \ R(y^s, z^o, t)))$

(31) daily * In(cup of coffee)

(32) But how does this explain the badness of

A daily cup of coffee $\left\{ \begin{array}{l} \text{had left circular stains on the tablecloth} \\ \text{is on the counter} \\ \text{is being made for him} \\ \text{fell on the floor} \\ \text{is ready} \end{array} \right. ?$

(33) John recommends a daily cup of coffee.
 We promised John a daily cup of coffee.

John poured a daily cup of coffee.
 We served John a daily cup of coffee.

(34) Stump:

1. *a daily cup of coffee* doesn't is not in fact an indefinite description of a discontinuous object. It is the name of the kind of such objects.
2. "singular indefinite generics like *a daily cup of coffee* can only occupy individual-level and kind-level argument positions with respect to verbs (however this notion is to be formalized)"

- (35) Let's abbreviate the following property of discontinuous objects as $\Box x.DC(x)$:
 $\Box x^o . \left(\llbracket \text{daily} \rrbracket^t \left(\Box t . \Box x^s R(x^s, x^o, t) \right) \& \Box y^s \Box t \left(R(y^s, x^o, t) \Box \Box z^o \left(\text{cup-of-coffee}(z^o) \& R(y^s, z^o, t) \right) \right) \right)$

Then, according to Stump *a daily cup of coffee* is interpreted as

$$\Box x^k \left(\Box x^o \left(R(x^o, x^k) \Box DC(x^o) \right) \right)$$

Definites

- (36) John's daily cup of coffee $\left\{ \begin{array}{l} \text{had left circular stains on the tablecloth} \\ \text{is on the counter} \\ \text{is being made for him} \\ \text{fell on the floor} \\ \text{is ready} \end{array} \right.$

Stump's analysis depends on "the existence of nonstandard objects with discontinuous spatiotemporal manifestations. Singular indefinite generics like *a periodic checkup* name kinds realized by such objects; noun phrases like *John's periodic checkup*, on the other hand, are definite descriptions of objects of this sort" (p. 245).

- (37) John's cup of coffee every day
 (38) John's occasional cup of coffee
 (39) John's inevitable cup of coffee

Epistemic NP Modifiers (Abusch & Rooth 1997)

or

Unidentified Objects

[Today's handout is based on Irene's handout on this from December 5, 1997]

Two Verb Classes

(1) Individual Objects

identify, name, list, enumerate, ...

- a. The story identifies the man she was with.
- b. The story identifies me as the man she was with.
- c. The man she was with was identified by his fingerprints on the wine glass.
- d. She was with an unidentified man.
- e. *The story identifies his identity.

- f. She has an unlisted phone number.
- g. Her phone number is unlisted.

- h. The information was attributed to several unnamed sources in the administration.

(2) Propositional Objects

disclose, specify, determine, ...

- a. *The story discloses the man she was with.
- b. *The story discloses me as the man she was with.
- c. She was with an undisclosed man.
- d. The story discloses that I was the man she was with.
- e. The story discloses his identity.

(3) Individual Objects or Propositional Objects, with distinct meanings

expect, predict, announce, know, ...

(4) I don't know the assailant. vs. I don't know the identity of the assailant.

A quick but vague sketch of a connection between *disclose* and *identify* (in small steps)

(5) The report disclosed that John was the culprit.

$\Box w' \left[w' \text{ compatible with the content of the report} \right] \text{ John} = \left[\Box x. x \text{ is the culprit in } w' \right]$

(6) The report disclosed who the culprit was. factive?

$$\begin{aligned} & \Box x \left(x \text{ is the culprit in } w \Box \Box w' \left[w' \text{ compatible with the content of the report } \Box x = \Box y. y \text{ is the culprit in } w' \right] \right) \\ & \Box w' \left[w' \text{ compatible with the content of the report } \Box \Box y. y \text{ is the culprit in } w = \Box y. y \text{ is the culprit in } w' \right] \end{aligned}$$

(7) The report disclosed the identity of the culprit.

<*> The report disclosed the culprit.

(8) \Box identifies $\Box \equiv \Box$ discloses the identity of $\Box \equiv \Box$ discloses who \Box is

(9) The report identified the culprit.

What will be needed to make sense of these connections:

- semantics of identity statements
- semantics of embedded interrogatives
- semantics of concealed questions

The Semantics of *Identify*

(10) The report identified the culprit.

(11) In every world compatible with the content of the report, the same person is the culprit.

(12) \Box identifies $\Box \Leftrightarrow \Box x \Box w [w \text{ is compatible with the content of } \Box \Box x \text{ is } \Box(w)]$

(13) $\llbracket \text{identify} \rrbracket = \Box x_e. \Box \langle \text{see} \rangle. \Box w. \Box x \Box w' \left[\begin{array}{l} w' \text{ is compatible with the content of } y \text{ in } w \Box \\ x = f(w') \end{array} \right]$

(14) $\Box x \Box w' \left[w' \text{ compatible with the content of the report } \Box x = \Box y. y \text{ is the culprit in } w' \right]$

If one has scruples about cross-world individuals, move to counterparts:

(15) ...

Consequence of the semantics:

identify \square does not make sense if \square is a rigid designator (same extension in every world)

- (16) a. The report identified John.
b. The report identified me.
- (17) The report identified John/me/some student as the culprit.
- (18) The report identified the culprit as John/me/some student.
- (19) The witness identified me (as the assailant).
- (20) John was identified as the culprit.
- (21) The culprit was identified as John.
- (22) This corpse was not identified until yesterday.
- (23) This corpse is still unidentified.

Two descriptions:

- (24) The report identified the culprit as the same man who broke into John's apartment.
- (25) $\square w' \left[\begin{array}{l} w' \text{ compatible with the content of the report} \\ \square \square y. y \text{ broke into John's apartment in } w / w' = \square y. y \text{ is the culprit in } w' \end{array} \right]$

- (26) The report misidentified the culprit.

Why the most simple-minded account of *unidentified* doesn't work

- (27) According to the story, Solange was at the party with an unidentified British nobleman.
- (28) $\square x$ [Solange was at the party with x & x is a British nobleman & x is unidentified (in the story)]
- (29) x is unidentified in the story
= x is not identified in the story
= the story does not identify x
= it is not the case that in every world compatible with the story, x is the same individual
= $\square \square y \square w$ [w compatible with the content of the story $\square y = x$]

[not possible]

E-Type Analysis

- (30) According to the story, Solange came with a nobleman. He is not identified.
- (31) 'he' = 'the nobleman Solange came with'
- (32) Solange came with an unidentified nobleman.
= Solange came with a nobleman, who is not identified.
= Solange came with a nobleman, and he is not identified.
'he' = 'the nobleman Solange came with'

A problem with uniqueness

- (33) Solange came with Count Dracula and an unidentified nobleman.
= S. came with C.D. and another nobleman, who (and he) is not identified
- (34) 'he' = 'the other (than Dracula) nobleman she came with'

A&R: "Suppose the label of the lime pickle says: limes, oil, red chiles, chemical preservative EDTA 1 mg, other chemical preservative 2 mg, nothing else. Solange reads the label and is not sure she wants any more. She says:

- (35) This lime pickle contains an unspecified chemical preservative."
- (36) This lime pickle contains an unidentified chemical preservative.
- (37) ≠ this lime pickle contains a chemical preservative, and it (the chemical preservative it contains) is not identified
- (38) This lime pickle contains a chemical preservative, which is not identified.
[appositive paraphrase: wrong]
- (39) This lime pickle contains a chemical preservative which is not identified.
[restrictive paraphrase: correct]

A&R on "clausal" vs. "pronominal" paraphrases:

- (40) The suspect was arrested at an unspecified location.
- (41) "clausal paraphrase":
The suspect was arrested at some location, and it was not specified at which location the suspect was arrested.
- (42) (a) At which location was the suspect arrested?
(b) What is the location at which the suspect was arrested?
- (43) "pronominal paraphrase":
The suspect was arrested at some location x, and it was not specified what (which location) x was.

- (44) E-Type-pronominal version:
The suspect was arrested at some location, and it was not specified what the location at which the suspect was arrested was.
- (45) Bound-variable-pronominal version:
There is some location x such that [the suspect was arrested at x and it was not specified what x was].

Dilemma:

E-Type-pronominal analysis implies non-restrictive modification and uniqueness.

Bound-variable-pronominal analysis implies logical triviality.

Other (possibly related) problems with the rigidity of variables

- (46) They had been hoping that he/that boy/I would be a girl.
- (47) You shouldn't have opened the door. I could have been a robber.
(based on an example attributed to Nunberg)
- (48) More than one of these boys has parents who hoped that he would be a girl.
- (49) Every man voted for a candidate that may have been he himself.
- (50) Lucie listened to the voice of a woman who (for all she could tell) might have been her. (based on Reinhart (1990ms.))

standard *de re* analysis:

- (51) (a) I could have been a robber.
'could have \square ' = 'you didn't know that not \square '
(b) You didn't know I_{de re} wasn't a robber.
(c) You were acquainted with me as the F, and you didn't know that the F wasn't a robber.
(e.g. 'the F' = 'the one knocking at your_{de se} door')
- (52) (a) I should have been a girl.
'should have \square ' = 'my parents hoped that \square '
(b) My parents hoped that I_{de re} would be a girl.
(c) My parents were acquainted with me as the F, and they hoped that the F would be a girl.
(e.g. 'the F' = 'the child they_{de se} were expecting')

carries over straightforwardly to bound-variable cases:

- (53) Every one of these boys should have been a girl.
- (54) They have one boy who should have been a girl.

A de re analysis for identify?

- (55) (a) The story identified \square .
(b) The story acquainted us with \square as the F, and it identified the F.
- (56) Solange was at the party with an unidentified nobleman.
- (57) $\square x$ [Solange was at the party with x & x is a nobleman & $x_{de\ re}$ is unidentified (in the story)]
- (58) (a) $x_{de\ re}$ is unidentified in the story
(b) the story does not identify $x_{de\ re}$
(c) The story acquaints us with x as the F, and it does not identify the F.
'the F' = 'the nobleman Solange was at the party with'
(d) $\neg \square y \square w$ [w is compatible with the story $\square y$ is the F in w]
- (59) Solange was at the party with John. But in the newspaper story about the party, he was not identified. [He was only identified as a British nobleman.]
- (60) Report: "Taking part in the meeting were Jones, Smith, and two other high-level executives. The latter were visibly uncomfortable."
- (61) The report did not identify the two other executives.
- (62) Luckily, the report did not identify Barnes and Norton (as the other two executives at the meeting).
- (63) The report claimed that Barnes and Norton were visibly uncomfortable.
- (64) The story acquaints us with x as the F and it does not identify x as the F (?)

Does the de re account solve the uniqueness problem?

- (65) The lime pickle contains an unidentified chemical preservative.
- (66) $\square x$ [the lime pickle contains x & x is a chemical preservative & $x_{de\ re}$ is unidentified (on the label)]
- (67) (a) $x_{de\ re}$ is unidentified on the label
(b) the label does not identify $x_{de\ re}$
(c) The label acquaints us with x as the F, and it does not identify the F.
'the F' = 'the other (than EDTA) chemical preservative in the lime pickle'
(d) $\neg \square y \square w$ [w is compatible with the label $\square y$ is the F in w]

Is this good enough? Will we always find a uniquely identifying acquaintance relation?

Cooccurrence restrictions on determiners

- (68) Fabienne put the money in an unexpected place.
- (69) Fabienne put the money in the predicted place.
- (70) #The campus police installed burglar alarms in most unknown buildings.
- (71) She has paid bribes to two unspecified members of Congress.
- (72) #She has paid bribes to most unspecified members of Congress.
- (73) #She has paid bribes to almost every unspecified member of Congress.
- (74) <#>The campus police did not install burglar alarms in any known building.
- (75) This drug has no known side-effects.
- (76) #She paid bribes to few (un)specified members of Congress.
- (77) Fabienne put money in all the/most of the/none of the predicted places.
- (78) #There was a story in the magazine. Solange came with the unidentified man.
- (79) # There was a story in the magazine. Solange came with the identified man.
- (80) Fabienne put the money in the predicted place.
- (81) Fabienne put the money in the place x such that somebody had predicted x_{de} re's identity
- (82) somebody predicts x_{de} re's identity □
somebody describes x as the F and predicts the F's identity
- (83) □ predicts □'s identity □
□y □w[w conforms to □'s prediction □ y is □(w)]
- (84) Fabienne put the money in the place x such that:
somebody had described x as the F and predicted the F's identity
- (85) 'the F' = 'the place where Fabienne would put the money'
- (86) predicted semantics for (78) under unavailable reading:
(a) Solange came with the man x such that the story doesn't identify x.
(b) the man x such that:
the story acquaints us with x as the F and doesn't identify the F
(c) 'the F' =? 'the man Solange came with'

Is there anything incoherent about this meaning? If so, what? ???

- (87) Solange came with the unidentified man.
Which unidentified man?
The one she came with.

(88) John used a new pen/two new pens/#the new pen/#every new pen. (Moltmann 96)

(89) Report: "Taking part in the meeting were Jones, Smith, and two other high-level executives. The latter were visibly uncomfortable."

According to the report, the (two) unidentified executives were visibly uncomfortable.

Both unidentified participants have been the target of subsequent rumors.

Scopal disambiguation

(90) There was a newspaper story about Solange. She has agreed to move to an unspecified city in Italy.

(91) Solange has agreed to move to a city in Italy unspecified in the newspaper story.

(92) Solange has agreed to move to a city in Italy unspecified in the agreement.

(93) fact to be explained: *an unspecified city in Italy* appears to take scope over *agree* iff the reading is (91).

Why is wide scope incompatible with reading (92)?

(94) In all worlds w that conform to the story:
[$\exists x$ x is an Italian city that Solange agrees to move to in w & the agreement doesn't specify $x_{de\ re}$]
Contradiction!

Why is narrow scope incompatible with reading (91)

(95) In all worlds w that conform to the agreement:
[$\exists x$ x is an Italian city that Solange moves to in w & the story doesn't specify $x_{de\ re}$]

(96) the story doesn't specify $x_{de\ re}$ □
the story acquaints us with x as the F

(97) 'the F ' = 'the Italian city where Solange will move (if she keeps the agreement)'
No contradiction, but indistinguishable from wide scope reading?

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READING FOR NEXT WEEK

Veneeta Dayal (1997) "Free Relatives and Ever: Identity and Free Choice Readings." in the Proceedings of SALT VII, pp. 99-116.

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