



Thus we predict the contrast in (1).

Siegel's double category analysis does not in fact generate the expectation that when adjectives occur in predicate position they will only have intersective interpretations. This is because Siegel's analysis always allows for the possibility of a null noun (N) in construction with the adjective - in essence, a dummy nominal equivalent to *one*. Thus (4a) is analyzed as in (4b), and therefore assumed to have basically the same interpretation as (4c).

- (4) a. That dancer is **beautiful**.  
b. That dancer is **beautiful** (N).  
c. That dancer is a **beautiful** one.

This prediction does not seem correct to me. I think (4c) much more readily assumes the "dance beautifully" reading than (4a).

Nonetheless, Siegel has what she thinks are good reasons for proposing that predicate adjectives should always be viewed as containing a dummy noun. Consider (5a,b):

- (5) a. George is a **skillful** manager.      a.' Boy, that manager is **skillful!**  
b. Yo-yo is a **good** cellist.              b.' Boy, that cellist is **good!**

Here it surely does seem that the predicate adjective construction can be used to assert something adverbial. Thus (5a') can assert that the individual manages skillfully. Likewise, (5b') can surely be used to assert that the individual in question plays skillfully. We don't have to read to as saying that the individual is, say, morally good, etc.

Thus we have a puzzle. On the one hand, most adjectives do seem to lose their non-intersective readings in predicate position, as predicted under the event-modification theory. On the other hand, some don't seem to lose their non-intersective readings, contrary to what we expect. What's going on?

It seems to me that there might be an obscuring factor in the case of adjectives like *skillful* and *good*. Consider the following paradigm:

- (6) a. ?\*Olga is beautiful **at dancing**.  
b. ?\*Kathrin is intelligent **at studying**.  
c. ??Teun was fierce **at arguing**.  
d. ??Bill is diligent **at presiding**.  
e. \*Peter is old **at being a friend**.
- (7) a. George is skillful **at managing**.  
b. Yo-yo is good **at playing cello**.

(6a-e) are all unacceptable to a greater or (slightly) lesser degree; it seems strange to speak of individuals being beautiful at something, or intelligent at studying, (7a,b) are completely smooth. These latter adjectives seem to carry an inherent activity meaning in them - to be skillful is to be skillful at (doing) something, and *good* seems to readily accept this meaning as well.

I suggest that this independent difference may be what is behind the contrast between (1) and (2). Suppose that both *skillful* and *good* can both be understood with an implicit PP argument whose character can be inferred from context. The local nouns *manager* and *cellist* constitute a natural source for interpreting the PP. Thus (5a') would be understood along the lines of (8a), and (5b') would be understood as in (8b). In effect, then, the implicit *at*-PP conveys the relevant adverbial understanding of *skillful* and *good* even when they are outside the nominal:

- (8) a. Boy, that manager is **skillful** (at managing)  
b. Boy, that cellist is **good** (at playing cello)!

In proposing this account of (1) versus (2), I have not actually proposed how the *at*-PP is to be interpreted, nor how to semantically analyze the combination of A + *at*-PP. A simple idea is that *George is a skillful manager* and *George is skillful at managing* ought to be interpreted the same way, with both *skillful manager* and *skillful at managing* involving generic quantification over events. If this is correct, then the fundamental prediction of the event account is upheld: only in the case where the adjective is in the scope of a generic quantifier and bound by it will the nonintersective reading be possible. It's simply that with *skillful* and *good* there is an additional way for this to come about.

I will leave the matter at this point. What is needed now is to pursue other cases showing the same behavior as *skillful* and *good* and see if the same explanation extends to them.

## 2.0. Constructional Events

I suggested earlier that an event parameter might be introduced not only by the argument structure of the noun in a DP, but also in a more indirect way through the nominal construction. I offered examples (9a,b) as possible instances of this:

- (9) a. a **recent** letter  
b. a **quick** cup of coffee.

Neither *letter* nor *cup* appear to be eventive nouns, with an *e* parameter that would be modified by *recent* or *quick*. On the other hand, letters readily invoke "surrounding events" of writing, sending, receiving and reading. That is, letters typically participate (as Themes) in such activities. Similarly, cups typically participate (as Instruments) in

events of drinking, and so on.

My suggestion was that the adjectives in (9a,b) modify an implicit event of a kind appropriate for the object denoted by the nominal. And I noted further that such an account seemed necessary for cases like (10a,b), where the adjective can be understood as modifying the relative clause event ('received recently'), and for (10c) where the adjective seems to modify the main clause event ('drank quickly'):

- (5) a. a **recent** letter **that I received** (discusses the political situation in Albania)  
b. the **quick** cup of coffee **that you drank this morning** (sustained you all day)  
c. Viviane **drank a quick** cup of coffee this morning

Without invocation of an independent, implicit event there would be a very serious compositionality problem to deal with here, because *recent* and *quick* are simply not in construction with the relative clause VP in (5a,b), and *quick* is not a modifier of the main VP in (5c).

Consider also the following examples from Vendler (1967)

- (11) a. i. Arthur is a **just ruler**.                      b. i. Arthur is a **just king**.  
      ii. Arthur **rules justly**.                        ii. \*Arthur **kings justly**.

An adverbial analysis of A-N seems reasonable for (11a.i) given the corresponding V-AdvP example (11a.ii) But what about (11b.i)? There is of course no verbal form \**king*, and yet the semantic relation of A to N seems highly parallel in *just ruler* and *just king*. Vendler saw the point plainly and went boldly forward, suggesting that we should in fact analyze *king* as (or as containing) a hidden V, which is adverbially modified by *just* in such examples. The lack of an overt verbal form *king* is viewed more or less as a lexical accident. Another possibility is that (11b) involves an implicit event of ruling, recovered from the fact that a defining property of kings is that they rule a country.

Consider the following additional items from Bolinger (1967), cited as A-N examples exhibiting an intuitively adverbial semantics, but where no clear deverbal item is present:

- (12) a. The New York Times is a **daily newspaper**. ('appears daily')  
      b. That was a **stray bullet**. ('went astray')  
      c. Dancer's Delight is a **fast horse**. ('runs fast')

In (12a-c) there is a clearly understood verbal element ('appear', 'go', 'run'), but notice that, unlike the case of *cellist/play-cello*, there is no reliable association between the noun meaning and the implied verb. It is by no means clear that *newspaper* should be associated closely with *appear*, or *bullet* with *go*, or *horse* with *run*. Compare, for example, the interpretations of *daily bread*, ('eaten daily'), *stray mark* ('placed wrongly')

and *fast plane* ('flies fast'), where in each case a different verbal component appears to be understood. Again, these seem like plausible candidates for an implicit constructional event analysis.

**2.1 Thematic PPs**

There are other cases that we might view in this light. Consider, for example, thematic PPs, like those in (13):

- (13) a. A message **to John**
- b. A book **by Mary**
- c. A present **from Alex**
- d. a cup of coffee **with Alice**

I can imagine someone analyzing the indicated PPs as arguments of the nouns in question, at least in the first three cases. Perhaps he or she might argue like this: "Look, a message is always a message to someone, right? So the PP in (13a) ought to be viewed as part of the relational structure of *message*." And similarly for at least (13b,c).

I don't find this reasoning convincing. The fact that a message is always a message to someone doesn't entail that the recipient is *part of* the relational semantic structure of *message* itself. The following view seems at least as plausible: messages are inevitably parts of situations of sending/communicating, and communication very typically has a goal participant. Thus the fact that a message is a message to someone doesn't come from the second being semantically part of the first. Rather results from a kind of larger structure of which both message and goal are parts:



To convince yourself of the sense of this picture, consider the following situation. Suppose Angeliek runs a geology company whose business involves sending rock samples to various customers. On a routine basis, therefore, she sends rocks to people. It seems to me that in this sort of circumstance, it would be very plausible for her to utter something like (15) to a co-worker:

- (15) **The rock to Bart** is on the sample table. **The rock to Marcel** is wrapped up and is sitting on the analysis bench.

We don't, I think, want to analyze *rock* as somehow altering its thematic structure in this case so that it is now semantically rock(x,y), where y is a goal argument. Rather what we surely want to say is that, for the interpretation of her utterance, Angeliek is drawing on the larger common situation where rocks are routinely sent to people.

It follows from this general line of reasoning that the more restrictive the set of circumstances in which a noun participates, the less context we will need to recover the relevant events, and the less latitude we will have in interpretation. Think again of cups of coffee. What else do you do with them but make, serve, and drink them? Accordingly I think it's very difficult to interpret *quick cup of coffee* except that the making (cf. *I made a quick cup of coffee*), the serving (cf. *I'm in a hurry. I need a quick cup of coffee.*), or the drinking (cf. *I drank a quick cup of coffee*) is quick. The same is true with *a cup of coffee with Alice* (8d). What ties the nominal to the PP is surely a drinking event ("a cup of coffee drunk with Alice").

What I am suggesting may be formalized using Montague Grammar style notation with Davidsonian events. Here is a first-pass analysis of the nominals in (13), where "With(e,a)" simplifies and treats *with* as denoting a simple theta-role relating Alice to the event:

- (16) a.  $\lambda P \exists e \exists x [\text{message}(x) \ \& \ \text{Theme}(e,x) \ \& \ \text{Goal}(e,j) \ \& \ P(x)]$   
 ('a message to John')
- b.  $\lambda P \exists e \exists x [\text{book}(x) \ \& \ \text{Theme}(e,x) \ \& \ \text{Agent}(e,m) \ \& \ P(x)]$   
 ('a book by Mary')
- c.  $\lambda P \exists e \exists x [\text{present}(x) \ \& \ \text{Theme}(e,x) \ \& \ \text{Source}(e,a) \ \& \ P(x)]$   
 ('a present from Alex')
- d.  $\lambda P \exists e \exists x [\text{cup-of-coffee}(x) \ \& \ \text{Theme}(e,x) \ \& \ \text{With}(e,a)] \ \& \ P(x)]$   
 ('a cup of coffee with Alice')

Unlike a normal neo-Davidsonian event decomposition, notice that there is no verbal predicate here. Compare, for example, *Alice sent a message to John*, which would get the rough representation in (17) where sending(e) is the verbal event predicate:

- (17)  $\exists x \exists e [\text{sending}(e) \ \& \ \text{Agent}(e,a) \ \& \ \text{message}(x) \ \& \ \text{Theme}(e,x) \ \& \ \text{Goal}(e,j)]$

Thus these nominals are somewhat like sentences that have lost their verbs. Less metaphorically, there is a common event that the elements of the nominal are related to (by thematic relations like Theme(e,x)). But there is no predicate asserted which explicitly states what kind of event the event is. This is left vague.

I suggest that the event quantifier  $\exists$  in (16a-d) not be analyzed as introduced by the N or PP, but rather as a "closure device" on DP, along the lines of Heim (1982). Suppose that when we have the pieces in (18a), we are optionally allowed to assemble them as in (18b), where x and e are "glued together" through a thematic relation  $\Theta(e,x)$ , whose value is supplied by context. When (18b) combines with the denotation of "a" in the usual way, we existentially close the e variable and get (18c):

- (18) a.  $\lambda x[\text{message}(x)], \text{Goal}(e,j)$   
 b.  $\lambda x[\text{message}(x) \ \& \ \Theta(e,x) \ \& \ \text{Goal}(e,j)]$   
 c.  $\lambda P \exists e \exists x[\text{message}(x) \ \& \ \Theta(e,x) \ \& \ \text{Goal}(e,j) \ \& \ P(x)]$

Very typically, when the nominal denotes an inanimate, the relation  $\Theta$  is Theme; but I think other roles may be possible with animate heads. Consider (19a,b):

- (19) a. John is [a friend to Peter]  
 b. Max is [a big-brother for Alex]

In the case of (19b), for instance, it seems to me we understand Max as the agent of some actions typical of big-brothers, of which Alex is the beneficiary. How to represent this in thematic terms is not so clear, however, since it's hard to know how to interpret *big-brother*. (It needn't be literally true that Max is an older brother in order for (19b) to be true).

## 2.2 Balantan Event-marking Again

In work on Balanta, Fudeman (1998) observes examples of adjectival event-agreement that seem to involve what I am calling "constructional events". Recall that Balantan adjectives show agreement with singular human and nonsingular nouns by being marked with the prefix *u-*. In the case of the non-intersective reading, however, we get the special prefix *a-*; Fudeman analyzes this morpheme as being affixed when the adjective is predicated of an event (20a,b):

- (20) a. Olga gi anire **u**-banche  
 Olga COP dancer U-beautiful  
 'Olga is a beautiful dancer' = 'Olga is beautiful and she is a dancer'  
 b. Olga gi anire **a**-banche  
 Olga COP dancer A-beautiful  
 'Olga is a beautiful dancer' = 'Olga dances beautifully'

Fudeman gives the pair (21a,b). In (21a) "the man is inherently smart. Being smart is not dependent on any aspect of his passing by." (p.6) On the other hand, in (21b), the characteristic of being smart is, as she describes it, "... unambiguously linked to the action of passing by. The man is not necessarily smart in any other context." (p.6)

- (21) a. alaante **u**-sire hembe diiste ando  
 man U-smart CL1.that pass.PAST here  
 'that smart guy (not in view) passed by here'  
 (entails that the man is inherently smart or devious)

- b. alaante **a**-sire hembe diiste ando  
 man A-smart CL1.that pass.PAST here  
 'that smart guy (not in view) passed by here'  
 (entails that the man did something smart or devious while passing by;  
 passed by a way indicating cleverness or deviousness)

Thus in (21a) the constructional event associated with *a*-marking appears to be that given by the containing clause. This appears analogous to cases like *drank a quick cup of coffee*, where (I have suggested) *quick* modifies a constructional event identified with the main clause event of drinking.

Fudeman also gives the pairs (22a,b) and (23a,b)

- (22) a. u- gi hal **u**-/\***a**-bonche  
 2SG.SUBJ-COP person U-/\*A-beautiful, nice  
 'You are a nice person'
- b. alla u- mada gi hal **a**-/\***u**-bonche mo?  
 how 2SG.SUBJ-be.able COP person U-/\*A-beautiful, nice today  
 'Why are you being nice today?'  
 (Said to someone who is not typically friendly)
- (23) a. n- gi **u**-raale  
 1SG.SUBJ-COP U-angry  
 'I am an angry person' (inherently angry)
- b. n- gi **a**-raale  
 1SG.SUBJ-COP A-angry  
 'I am angry' (because of something that has just happened)

According to Fudeman, in (22b) there is an event/state of being nice that is being adverted to, but not in (22a). And in (23b) "the implied event is understood to be the cause of my being angry, but in [(23a)] my angriness is not tied to an event at all." (p.7) Example (23b) of *a*-marking in Balanata seems counterpart to an adverbial reading something like "I am now angry".

The contrasts in (22) and (23) actually look like they might be instances of something different, namely, the individual-level/stage-level distinction of Carlson (1977). But Fudeman argues that this is not correct. First of all, in both (22a,b) the adjective *bonche* 'beautiful, nice' appears to be i-level: Olga is inherently beautiful or her dancing is inherently beautiful. It's hard to see how the i-level/s-level distinction could be drawn here. Fudeman offers the further pairs in (24a,b):



- (24) a. a- gi u-/\*a-hii  
 3SG-COP U-/\*A-white  
 'he is white'
- b. a- gi u-/\*a-saage  
 3SG-COP U-/\*A-ill  
 'she is ill'

Fudeman says that (24a) "was elicited in two separate contexts; first that the subject was Caucasian, and second that the subject was Balanta, but covered with white paint. In both cases, however, 'white' occurs with *u*-marking. Similarly 'ill' in [(18b)] was elicited in contexts of being chronically ill, and ill because the subject has eaten something that disagreed with her: (p.8) So the point is that for both temporary and stable possession of the property given by the adjective, we get *u*-marking. Thus this doesn't look like the i-level/s-level contrast.

This work is preliminary, and the results are therefore tentative, but if Fudeman's proposals bear out, they would seem to provide interesting and important evidence for constructional event evaluation.

### 3.0. An *Old* Problem

It would be nice if the analysis advanced here had the result of definitively solving at least one solid puzzle in the domain of adjective semantics. But definitive solutions are hard to come by. Anyway, I do believe the current proposals at least suggest some news ways of thinking about familiar problems. Let's consider one concerning the interpretation of the adjective *old*.

I noted earlier that *old* displays an intersective/non-intersective ambiguity in examples like *old friend*. An old friend can be an aged friend (intersective reading), or an individual with whom one's friendship is of long-standing (non-intersective reading). But in fact the situation is more complicated than that. Actually *old* displays an apparent three-way ambiguity: "aged", "longstanding", and "former":

- (25) Max is an old rival.
- |                           |   |
|---------------------------|---|
| a. "an aged rival"        | Max is a rival and he is old.             |
| b. "a longstanding rival" | The rivalry with Max is old."             |
| c. "a former rival"       | Max was a rival, but he is no longer one. |

The puzzle for us (and pretty much everyone else) is simply this: how do account for the third reading? The first results from predicating *old* of the individual who is the friend. The second results from predicating *old* of the state of friendship. What possibilities are left??

### 3.1 Lexical Ambiguity

One idea might be that *old* is just plain lexically ambiguous, with one of its meanings simply being "former". Simplifying our event representations and pretending that they are just simple existential quantifications, we get (26a-c):

- (26) *Max is an old rival*     $\exists e[\text{rivalry}(e) \ \& \ \text{Theme}(\text{max},e) \ \& \ \text{old}(\text{max})]$   
    $\exists e[\text{rivalry}(e) \ \& \ \text{Theme}(\text{max},e) \ \& \ \text{old}(e)]$   
    $\exists e[\text{rivalry}(e) \ \& \ \text{Theme}(\text{max},e) \ \& \ \text{former}(e)]$

Although this may well be right, it certainly isn't a very interesting answer. Furthermore, this approach would seem to make the presence of the "former"-reading a sort of lexical accident. But other languages (e.g, Spanish, German) show the very same three-fold ambiguity. So we would like to avoid this account unless driven to it.

### 3.2 Hidden Time Parameter

An alternative idea more in the spirit of this work is that *old* is unambiguous, but some other dimension of N is involved. Remember that on the approach we're experimenting with, the readings available with adjectives become a probe into the semantic structure of the common noun. Suppose then we assume that the 'former' reading arises when *old* applies to a new parameter in the CN interpretation - time intervals (Parsons 1990). We might try to implement this as in (27) and (28):

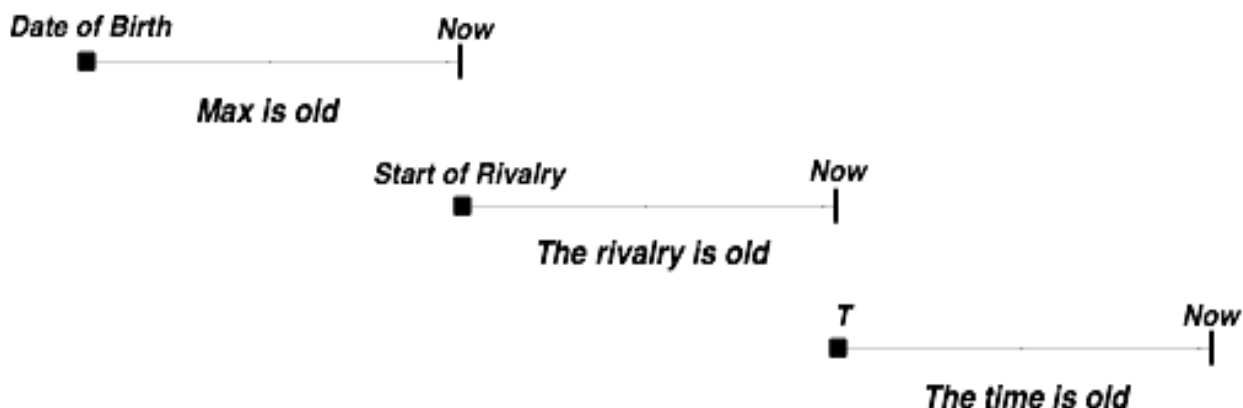
- (27)  $\text{Val}(\langle x,e,T \rangle, \text{rival})$  iff  $\text{rivalry}(e) \ \& \ \text{Theme}(x,e) \ \& \ \text{Hold}(e,T)$   
       $\text{Val}(\langle x,e,T \rangle, \text{friend})$  iff  $\text{friendship}(e) \ \& \ \text{Theme}(x,e) \ \& \ \text{Hold}(e,T)$

- (28) *Max is an old rival*  $\exists T \exists e[\text{rivalry}(e) \ \& \ \text{Theme}(\text{max},e) \ \& \ \text{Hold}(e,T) \ \& \ \text{old}(\text{max})]$   
    $\exists T \exists e [\text{rivalry}(e) \ \& \ \text{Theme}(\text{max},e) \ \& \ \text{Hold}(e,T) \ \& \ \text{old}(e)]$   
    $\exists T \exists e [\text{rivalry}(e) \ \& \ \text{Theme}(\text{max},e) \ \& \ \text{Hold}(e,T) \ \& \ \text{old}(T)]$

So the picture would go something like this: *old* always refers to some interval that extends significantly into the past from the present.

- When we say a person is old, we mean that the interval from their date of birth to the present extends a long-way into the past.
- When we say a rivalry is old, we mean the interval from the start of the rivalry to the present extends significantly into the past.
- Finally when we say that that time of the rivalry is old, we mean that the interval extending back from now until when the rivalry held (T) is lengthy.

(29) **The Pretty Picture:**



It's a pretty picture. but unfortunately, I just don't think it's right. The problem is that *former* does not carry the notion the notion of distant past, and on the reading where *old* means what *former* means, it also loses this implication.

Think of the situation of an old boyfriend or an old girlfriend. Once one's relationship with another breaks up, it seems to me that they more or less instantaneously become one's old boyfriend or one's old girlfriend, just as they become one's former boyfriend or one's former girlfriend. I admit that with *old* there is a bit of hint that the relationship may have terminated a little while ago, but its at most an implicature. It seems to me that, in a fit of pique one can address one's significant other and say: "Okay, that does it. You just became my old boyfriend". If that's correct, then the pretty picture is wrong.

### 3.3 A Possessive Ambiguity

A final idea suggested by the analyses presented here is that we are dealing with a possessive ambiguity, similar to what we get with *my former restaurants*. The idea is that the three-way ambiguity of *old* represents the following three structural possibilities:

- (30) a. [DP my [ POSS [NP old rival]]] *old* modifies *rival*; predicated of person  
"intersective reading"
- b. [DP my [ POSS [NP old rival]]] *old* modifies *rival*; predicated of state  
"non-intersective reading"
- c. [DP my old [ POSS [NP rival]]] *old* modifies POSS; predicated of state  
"former reading"

So, in particular, when *old* modifies POSS, the notion of "old possession" gets understood as former possession. Burton (1988) makes a related proposal about what happens when a Halkomelem past tense morpheme modifies a possession relation: it

comes to mean 'lost possession, former possession,' etc.

Notice that this view is not jeopardized by the fact that (31a) *Max is an old rival*, is not an overt possessive construction. The noun *rival* is relational and it might plausibly be argued that (31a) is just an elliptical form of (31b). We have already seen that parallel examples like (31c) allow temporal modification of the possession relation when *former* is present:

- (31) a. Max is an old rival. (=25a)  
b. Max is an old rival of mine.  
c. a former car of John's  
i. 'a car which was once possessed by John'  
ii. 'an object which is possessed by John and which was once a car'

So this would solve the problem nicely. We get the three- fold semantic ambiguity out of a hidden three- fold structural possibility. The presence of hidden possessive structure yields the new reading.

Again we have a nice pretty picture. But again I'm afraid it may not do the job for us. It is plausible to analyze our initial example (31a) as a concealed possessive, but consider the following example: we go to a trendy new restaurant, which has been converted to its new use from a previous structure. You look around, recognize the structure and say (32) to me. What you mean is not that this is an aged power-plant (it's a restaurant now, not a power-plant). Likewise you don't mean it's been a power-plant for long time. What you mean is that it is a former power-plant, and it may have been converted as recently as last month. This kind of reading is easy to draw out by differential stress assignment. Think of (33a) said by me, lamenting that I don't own an up-to-the-minute piece of computer hardware. Compare (33b), which might be said upon encountering a strange piece of hardware being used in an odd way - say as a doorstep.

(32) Hey this is an old power plant!

- (33) a. This is an OLD computer.  
b. This is an old COMPUTER.

In both cases we plainly seem to have a "former" use of *old*, but I don't detect even a hint of possessive structure here.

This is where I am with this problem at the moment. The upshot is that although the analysis suggests a number of new and interesting ways of looking at it, it can't be said to offer a definite solution. Our *old* problem is not yet an old ("former") problem.

## 4.0. Infrequency Adverbs

Event quantification was first introduced by Davidson in connection with adverbial modification at the verb-phrase level. A natural question arises as to the interaction between verb-phrasal and nominal event quantification. This question can be put in a very sharp form in connection with certain examples, yet again noted in Bolinger (1967). Bolinger observes examples like (34)-(36), where an adjective occurring inside a nominal appears to be understood as if it were a matrix adverbial.

- (34) a. [ An **occasional** customer ] strolled by.  
 (cf. *Occasionally a customer strolled by.*)  
 b. Max saw [ the **occasional** customer].  
 (cf. *Occasionally Max saw a customer.*)
- (35) a. [ a **sporadic** shot ] was heard.  
 (cf. *Sporadically a shot was heard.*)  
 b. Sandy heard [ a **sporadic** shot ].  
 (cf. *Sporadically Sandy heard a shot.*)
- (36) [ an **infrequent/rare** visitor ] was seen.  
 (cf. *A visitor was seen infrequently/rarely.*)

The difference between these cases and that of *beautiful dancer* is seen clearly in an example like (37), which shows both a *beautiful dancer*-type of interpretation, in which *occasional* adverbially modifies its sister nominal (call this the "internal Adv reading"), and an interpretation in which it appears to modify the matrix VP (call this the "external Adv reading").

- (37) Barbara saw an occasional sailor.  
 'Barbara saw a person who occasionally sailed' (internal Adv reading)  
 'Occasionally, Barbara saw a sailor' (external Adv reading)

The existence of an external adverbial reading presents a significant puzzle for compositional semantics. Consider the obvious idea of deriving the external reading by raising the adjective out of DP at logical form, allowing it to attach and express modification in the containing clause:

- (38) [<sub>TP</sub> occasional [<sub>DP</sub> an \_\_\_ customer ] strolled by].  
 \\_\_\_\_\_ /

A potential virtue of this idea is that it might help to explain certain constraints on the availability of the external reading. For example, note that an article (definite or indefinite) is required for the external reading; the presence of other determiners blocks it (39). Furthermore, the relevant adjective must be outermost for an external reading; in an interior position only an internal reading is possible (cf. (40a,b)):

- (39) a. Two occasional sailors strolled by. (internal reading only)  
 (≠ *Occasionally two sailors strolled by.*)  
 b. Every occasional sailor strolled by. (internal reading only)  
 (≠ *Occasionally every sailor strolled by.*)
- (40) a. A well-dressed occasional sailor strolled by. (internal reading only)  
 b. An occasional well-dressed sailor strolled by. (external reading only)

Under the movement analysis, a natural idea is that the adjective requires an article as an "escape-hatch" out of DP, and cannot move over an intervening adjective.

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 in (38) 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?

There are empirical complications as well. Observe that an adjective inside a definite nominal corresponds to an Adv outside an indefinite nominal, and not to an Adv outside a definite nominal (35a,b). If the adjective were simply raising out of DP, past the article, we wouldn't expect an alternation in definiteness:

- (41) a. The occasional customer strolled by.  
 = Occasionally, a customer strolled by.  
 ≠ Occasionally, the customer strolled by.  
 b. Max saw the occasional customer.  
 = Occasionally, Max saw a customer.  
 ≠ Occasionally, Max saw the customer.

Furthermore, consider adjectives like *odd*, which intuitively have an external reading, but which seem to lack any adverbial counterpart. (42) is due to Ed Keenan.

- (42) The odd Samoan showed up.  
 ≠ Oddly, a Samoan showed up.

Finally, notice the curious fact that the adjectives showing the behavior in (34)-(36) are confined to adjectives of infrequency. Counterparts expressing frequency or regularity do not support an external Adv reading (43). If A were simply raising out of DP, we wouldn't expect a difference in frequency versus infrequency:

- (43) a. [ a frequent customer ] strolled by.  
 (≠ *Frequently a customer strolled by.*)

- b. Barbara saw [ a regular customer].  
(≠ *Regularly Barbara saw a customer.*)
- c. [ a common visitor ] was seen.  
(≠ *A visitor was seen commonly.*)

These facts suggest that more than simple LF raising, converting a nominal modifier to a verbal modifier, is at work here.

#### 4.1. A's as D's

I believe that the phenomenon of external adverbial readings in (28)-(30) may be linked to certain definiteness phenomena observed with adjectival agreement in Scandinavian languages. Svenonius (1993) notes that Norwegian definite DPs with a prenominal adjective generally require an overt determiner (44a). The nominal inside DP occurs with a definite suffix, and D licenses this definite suffix. Interestingly, certain adjectives, including *samme* 'same' and *første* 'first', are an exception to the rule just stated. These adjectives can apparently license a definite suffix on N, even without the presence of an overt definite D (44b,c).

- (44) a. \*(det) viktige møtet  
(the) important meeting.DEF  
'the important first meeting'
- b. samme trøtte maten  
same boring food.DEF  
'the same boring food'
- c. første viktige møtet  
first important meeting.DEF  
'the first important meeting'

Interestingly, these adjectives obey a constraint similar to that observed above, namely: they must be outermost; if they occur inside another adjective, the definite article is required (45a); furthermore, when one of the relevant adjectives occurs without an article, it does not behave like a normal adjective insofar as it does not accept a degree modifier (45b):

- (45) a. \*(det) viktige første møtet  
(the) important first meeting.DEF  
'the important first meeting'
- b. \*(det) aller første møtet  
(the) very first meeting.DEF  
'the very first meeting'

Svenonius proposes that *samme* and *første* are "determining adjectives": adjectives that behave as determiners. I suggest this is also plausible for the adjectives in (34)-(36) on their external Adv readings. Suppose that the adjectives in question do raise, but raise

to the article (46a). Suppose further that A/D complex denotes a pair quantifier over events and individuals, with a logical form roughly as in (46b), which may be read as follows: for few pairs  $\langle e, x \rangle$  such that  $e$  is a part of some larger contextually given event  $e^*$  and  $x$  is a customer,  $e$  is a strolling-by by  $x$ :

(46) a. [<sub>DP</sub> an occasional customer ] strolled by.

b.  $\setminus /$   
 INFREQ $\langle e, x \rangle$  [P( $e, e^*$ ) & customer( $x$ )] [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.

## 5.0. Conclusion

In these lectures we have surveyed various problems and puzzles in the domain of adjectival modification of nouns, and looked at a variety of proposal for their analysis. And we have only scratched the surface! There are many, many interesting semantic issues and questions that we have not been able to address here, and many issues concerning the relation of this work to structure that we have also not touched. Even though I do not claim a definitive solution to any of the central questions of adjectival, I do at least hope to have convinced you that the event theory of Donald Davidson yields some very rich and suggestive ideas about how to tackle these questions. If I've done that, the class has been a success.