In this lecture, I will discuss three topics. First, I will discuss (in Section 3.1.) the semantics of passive sensitive adverbs. This topic will lead us to a discussion of the semantics of passivization (in Section 3.2.), and we will see an important application of the Unique Role Requirement when we study the interaction between passive sensitive adverbs and passivization.

Second, in Section 3.3, I will have some initial discussion of the semantics of plurality, two approaches to collective readings of plural noun phrases are discussed. One approach adopts the Unique Role Requirement and assumes that in a collective reading of a plural sentence, a collection fills a single role of a single event. The other approach rejects the Unique Role Requirement and assumes that in a collective reading, singular objects fill multiple roles of a single event. I will defend the first approach here. The topic will be developed further in lecture Five.

Third, I will discuss, in Section 3.4., the argument extension alternative to the Davidsonian theory. Here I will conclude that, while a coherent alternative theory can indeed be worked out, it will in most of its essential respects be so much like the neo-Davidsonian theory, that empirical criteria are unlikely to be able to decide between them. This means that heuristic arguments will have to make that decision. I will use the neo-Davidsonian theory because of the scopelessness phenomena that form the topic of the remainder of these lectures: the analysis of plurality and scope that I will develop in the bulk of these lectures is just much easier to formulate in a neo-Davidsonian theory than in its argument extension competitor.

### 3.1. PASSIVE SENSITIVE ADVERBIALS


1. Adverbials like *reluctantly* are subject oriented in active sentences and can be interpreted as both subject or *by-phrase* oriented in passive sentences.

   (1) a. Reluctantly, Joan instructed Mary.
   b. Reluctantly, Mary was instructed by Joan.
THE NEO-Davidsonian Theory and Its Rivals

(1a) can only mean that Joan was reluctant, not that Mary was reluctant; (1b) is ambiguous, it means either that Mary was reluctant or that Joan was reluctant. (McConnell-Ginet 1982 discusses which readings these adverbials can have in which positions.) These observations extend to indirect object passives:

(2) a. Reluctantly, Caesar sold Crassus the slave.
    b. Reluctantly, the slave was sold by Caesar to Crassus.
    c. Reluctantly, Crassus was sold the slave by Caesar.

(2a) means that Caesar was reluctant, not that the slave was reluctant, nor that Crassus was reluctant. (2b) means either that the slave was reluctant, or that Caesar was reluctant, but not that Crassus was reluctant. (2c) means either that Crassus was reluctant, or that Caesar was reluctant, but not that the slave was reluctant.

2. Adverbials like \textit{reluctantly} are intensional. (3a) and (3b) can differ in truth value, even if the queen is the head of the state council:

(3) a. Reluctantly, Joan insulted the queen.
    b. Reluctantly, Joan insulted the head of the state council.

3. But adverbials like \textit{reluctantly} are factive: (3a) entails (3c):

(3) a. Reluctantly, Joan insulted the queen.
    c. Joan insulted the queen.

4. Adverbials like \textit{reluctantly} are extensional with respect to the argument they are sensitive to. This can be seen by considering the following examples:

(4) a. Reluctantly, the queen insulted Mary.
    b. Reluctantly, the head of the state council insulted Mary.

(5) a. Reluctantly, the author of Ulysses was insulted by the author of To The Lighthouse.
    b. Reluctantly, the author of Chamber Music was insulted by the author of The Waves.

(6) a. Reluctantly, Mary instructed every student,
    b. Reluctantly, every student instructed Mary.

If we compare (3a,b) with (4a,b), we observe that substitution is unproblematic in (4) in the subject argument that \textit{reluctantly} orients to. The same is shown with the different readings of (6). The difference between (6a) and (6b) is instructive: (6a) can mean that Mary was reluctant about the fact that she had to instruct all the students. But (24b) only allows an interpretation where \textit{reluctantly} takes narrow scope with respect to every student.
Parsons 1990 suggests that passive sensitive adverbs like *reluctantly* are probably best analyzed as sentence-level adverbs. The reason for making this assumption seems to be the intensionality: the category of sentence-level adverbials is where we typically find the intensional adverbials. Parsons assumes further that other postulates will guarantee the appropriate factivity and extensionality.

With Wyner 1989a, I think that this is very stipulative and problematic. The factivity and extensionality of the associated argument are, I think, strong indicators that in fact these adverbs are VP adverbials: treating them as VP adverbials predicts both the required factivity and extensionality automatically. The problem with assuming that they are VP adverbials is that it is not clear how you can predict the intensionality.

Let us ignore the intensionality for the moment and concentrate on the subject orientedness of these adverbials. Let us make the following two assumptions:

1. Passive sensitive adverbials like *reluctantly* are VP adverbials.
2. Passive sensitive adverbials like *reluctantly* are subject oriented.

The first assumption means that, like other adverbials, *reluctantly* can modify transitive and intransitive VPs.

The second assumption means that, whereas an adverbial like *slowly* adds conjunctively a property of the event argument, *reluctantly* adds conjunctively a relation between the event argument and the subject argument of the VP, which is the argument added last, i.e. the innermost individual variable in the lambda-prefix. This leads to the following:

**Transitive verb phrase modification:**

\[ \text{reluctantly } \rightarrow \]

\[ XVX\lambda x.\langle e\ e V(x,y): \text{RELUCTANT}(x,e) \rangle \]

**Intransitive verb phrase modification:**

\[ \text{reluctantly } \rightarrow \]

\[ XVXx.\langle e\ e V(x): \text{RELUCTANT}(x,e) \rangle \]

This analysis is of course not correct, since it doesn’t deal with intensionality. Since *reluctantly* is treated like a normal VP adverb, the phenomenon called factivity follows automatically, since it is nothing but the principle of modifier drop: when *reluctantly* modifies *insulted the queen* in (3a), its meaning is added conjunctively. Clearly after the subject *Joan* is added, we get a conjunction of (3c), *Joan insulted the queen*, and something about reluctance. So certainly (3c) will follow from that.

I will give the analysis of passives later, but the following considerations should convince you that, **given assumption 2**, any standard analysis of passives can very easily predict the passive sensitivity facts I mentioned.
We only have to assume that we can apply the modifier to the verb phrase either before passivisation, or after passivisation to get all these facts.

In the active sentence, the subject is the innermost argument in the ^-prefix at every stage of the derivation, hence modification with reluctantly will always orient reluctantly towards the subject. In the passive sentences, before passivisation the innermost variable in the ^-prefix is the one corresponding to the subject that will end up in the fey-phrase. Applying reluctantly at this stage, will produce a reading where reluctantly is oriented towards the fey-phrase subject.

Passivisation makes the direct object or the indirect object the passive subject. This means that it makes the variable corresponding to either the direct object or the indirect object (depending on which will be the passive subject) the innermost variable in the X-prefix. If we first do passivisation, and then apply reluctantly, reluctantly will be oriented towards what is at that stage the innermost variable, hence it will be oriented towards the passive subject, which is the object in (2a) and (2b), and the indirect object in (2c). At no stage of the derivation of (2b) is the variable corresponding to the indirect object the innermost variable in the ^-prefix, hence we do not get a reading for (2b) where reluctantly is oriented towards the indirect object. For the same reason, we do not get a reading in (2c) where reluctantly is oriented towards the direct object.

Let me point out that this is not a new analysis (what will be new is the treatment of passives and some of the remarks concerning intensionality, discussed later). Several proposals in the literature, in particular Thomason and Stalnaker 1973, McConnell-Ginet 1982, and Wyner 1989a treat passive sensitive adverbials as VP adverbials and give an analysis of passive sensitivity which relies by and large on the same idea: reluctantly can apply to the 'deep subject' or to the 'surface subject' in passive sentences.

Some of the differences with McConnell-Ginet's theory have to do with the fact that her account is more ambitious. McConnell-Ginet tries to account for the different readings that reluctantly can have in its different surface positions in a passive sentence. The proposal that I have made here has (by lack of a syntax) nothing to say about that.

Other differences are fundamental. I have assumed here that the orientation of passive sensitive adverbials is (at least partly) grammatical, rather than lexical in nature. This means the following: I am assuming, with everybody else, that there are semantic constraints on the orientation of adverbials like reluctantly. It is highly likely that there are certain thematic roles towards which reluctantly cannot orient (for instance, roles that cannot be filled by sentient beings). These, I assume are lexical constraints on the meaning of reluctantly. However, the above analysis assumes that we cannot describe constraints on the orientation of reluctantly purely in lexical semantic terms: we need to rely on the grammatical notion of subject.

This is not what McConnell-Ginet assumes. She assumes a lexical semantic account of the orientation of reluctantly: reluctantly orients towards an agentive role. She further assumes that the passive introduces a higher predicate of which the subject is
agentive (enough for *reluctantly* to orient towards it). The two readings in the passive case are then derived structurally: since there are two verbs available - the VP and the higher passive verb phrase, *reluctantly* can attach at two places, hence the two readings.

In the neo-Davidsonian approach, with the Unique Role Requirement, this forces a two-event approach to passives: since there are two agents involved, each must be agent of a different event (or state). Thus, we would have to give the analyses in (8a) and (8b) to the active and passive in (7a) and (7b) respectively:

(7) a. Mary kisses John.
    b. John was kissed by Mary.

(8) a. There is an event of kissing with Mary as agent and John as theme.
    b. There is a state of John (possibly agentively) having the property of there being an event of kissing with Mary as agent and John as theme.

The problem with this is not that interpretation (8b) is implausible for (7b). It is certainly semantically coherent. However, as we have seen before with 'property-interpretations', these interpretations tend to abound. In particular, one would say, that in certain contexts (8b) would be an adequate interpretation for (7a) as well. On McConnell-Ginet's analysis that would be no good, of course, but we would like independent evidence for assigning the interpretation in (8b) to (7b) and disallowing this interpretation for (7a). And independent evidence for a two-event analysis of (7b) is hard to come by.

Wyner 1989a, 1994 also presents a lexical semantic theory of orientation. Unlike McConnell-Ginet, Wyner doesn't assume that the passive introduces a higher predicate. Wyner assumes that there is a thematic role Volitional participant (VOL), which in a normal lexical predicate is aligned with the Agent role (which means that normally both these roles are assigned to the subject). On Wyner's account, passivisation optionally assigns the Volitional Participant role to its surface subject.

In the active case, the Volitional Participant role is optionally assigned. When it is assigned, it is aligned with the agent role. *Reluctantly* orients towards the volitional participant role, hence in the active case, it requires this role to be assigned, and as a consequence of the role alignment, *reluctantly* will orient towards the subject.

In the passive case, the Volitional Participant role can be assigned lexically; since Wyner assumes that it can be assigned only once, it cannot then be assigned again by the operation of passivisation: when *reluctantly* is added, it will orient towards the by-phrase deep subject. Alternatively, the Volitional Participant role can be lexically unassigned; then passivization can assign it to the surface subject; this gives the reading where *reluctantly* orients towards the surface subject.

It is essential for Wyner's approach that *reluctantly* orients towards a Volitional Participant Role, of which there can be only one per event. Clearly more than one participant of an event can be volitional, but also clearly, *reluctantly* cannot orient