Back to disjunction (cleaning up before we go)

- As Fox 2006 notes, putting together Sauerland's alternatives for disjunction with the semantics for **exh** (and **only**) that we have now with gives us wrong predictions.

1) [[**exh**]] = $\lambda C_{<st,t>}\, \lambda p \lambda w\, (p(w)\ \&\ \forall q\, (C(q)\ \&\ q(w)) \rightarrow (p \Rightarrow q))$
$p \Rightarrow q =_{def} \forall w\, (p(w) \rightarrow q(w))$

2) John talked to Mary or Sue.

- Sauerland-alternatives for 2):

(i) John talked to Mary or Sue.
(ii) John talked to Mary
(iii) John talked to Sue.
(iv) John talked to Mary and Sue.

- Applying **exh** to (1), we get

(i) that John talked to Mary or Sue
(ii) that John didn't talk to both Mary and Sue.
(iii) that John didn't talk to Mary
(iv) that John didn't talk to Sue.

→ (iii) and (iv) together contradict the assertion (i).

[cf. G & S 1984:

3) Who did John talk to?
Only Mary or SUE.]

- Innocent exclusion:

4) [[**Exh**]] = $\lambda\, C_{<st,t>}\, \lambda p_{st} \lambda w\, (p(w)\ \&\ \forall q \in \text{I-E}(p,C) \rightarrow \neg q(w))$

$\text{I-E}(p,C) = \cap\{C \subseteq C\text{: } C' \text{ is a maximal set in C such that } C'^{\neg} \cup \{p\} \text{ is consistent}\}$

(i) Identify the maximal sets in C whose exclusion would be consistent with the propositional argument of **Exh.**

(ii) The propositions that can be innocently excluded are the ones in the intersection of all of those sets

5) **Exh** $(A \vee B)$

6)

$A \vee B$

A B

$A \& B$

Maximal sets whose exclusion would be consistent with 'A or B':

7) {A, A & B}

8) {B, A & B}

Innocently excludable alternatives: A & B

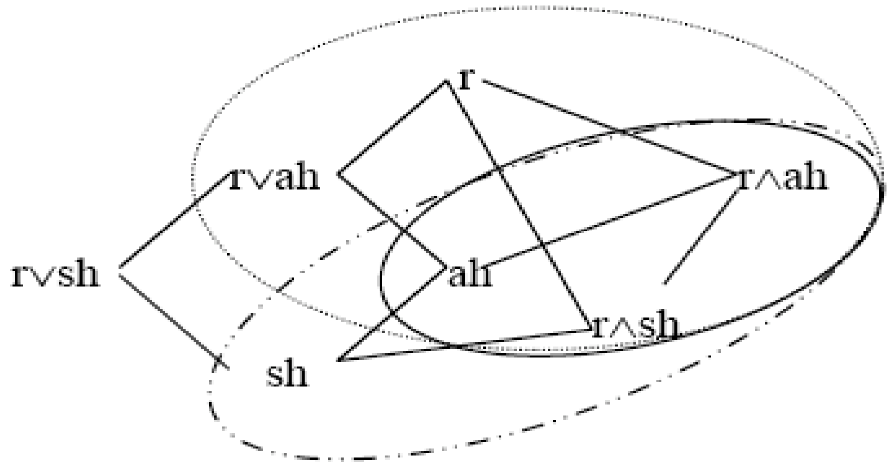
Hence: **Exh** $(A \vee B)$ = A or B & ~(A & B)

- Replicating Sauerland's results:

9) Kai did do the reading or some of the homework

Alternatives:

(i) $r \vee sh$
(ii) r
(iii) sh
(iv) $r \& sh$
(v) $r \vee ah$
(vi) ah
(vii) $r \& ah$



Maximal exclusion: dotted lines
Intersection: solid lines.

10) [[**Excl**]] ((58)) =

Kai did not eat the broccoli or some of the peas and

(i) Kai did not eat all of the peas.
(ii) Kai did not eat the broccoli and some of the peas

[(iii) Kai did not eat the broccoli and all of the peas]