

Inquisitive pragmatics

Ignorance, possibility and exhaustivity

Matthijs Westera

Institute for Logic, Language and Computation
University of Amsterdam

Workshop on Questions and Inquisitive Semantics
University of Gothenburg, 2012, December 17th

Structure

Setting the scene

Aims of this talk

Framework: unrestricted inquisitive semantics

Ignorance and possibility

Characterising relevance and goal

Possibility and attentive 'might'

Escape hatches for the existential quantifier

Exhaustivity implicatures

In inquisitive pragmatics

Exhaustivity and focus

Mention-some questions

Conclusion

Pragmatics

(Grice, 1975)

- ▶ The utterance of a sentence in context may convey more than the sentence's literal meaning.

Pragmatics

(Grice, 1975)

- ▶ The utterance of a sentence in context may convey more than the sentence's literal meaning.
- ▶ The context includes assumptions about the dialogue participants' behaviour, in particular that they behave *cooperatively*, as captured by a set of maxims:

Pragmatics

(Grice, 1975)

- ▶ The utterance of a sentence in context may convey more than the sentence's literal meaning.
- ▶ The context includes assumptions about the dialogue participants' behaviour, in particular that they behave *cooperatively*, as captured by a set of maxims:
 - ▶ **Quality:** Say only what you believe to be true.
 - ▶ **Relation:** Say only what you believe to be relevant.
 - ▶ **Quantity:** Be just as informative as required for the goal of the conversation.
 - ▶ **Manner:** Be concise, clear, etcetera.

Grice (1975) on the maxim of Relation

Grice (1975) on the maxim of Relation

Though the maxim itself is terse, it's formulation conceals a number of problems that exercise me a good deal: questions about what different kinds and focuses of relevance there may be, how these shift in the course of a talk exchange, how to allow for the fact that subjects of conversation are legitimately changed, and so on.

Ignorance and possibility implicatures

Classical explanation

1. The speaker said '*John or Mary came*'.

Ignorance and possibility implicatures

Classical explanation

1. The speaker said '*John or Mary came*'.
2. Hence, that *John or Mary came* is relevant. (Relation)

Ignorance and possibility implicatures

Classical explanation

1. The speaker said '*John or Mary came*'.
2. Hence, that *John or Mary came* is relevant. (Relation)
3. Hence, that *John came* would be relevant too.

Ignorance and possibility implicatures

Classical explanation

1. The speaker said '*John or Mary came*'.
2. Hence, that *John or Mary came* is relevant. (Relation)
3. Hence, that *John came* would be relevant too.
4. Had the speaker believed that *John came*, she would have conveyed that instead (Quantity)

Ignorance and possibility implicatures

Classical explanation

1. The speaker said '*John or Mary came*'.
2. Hence, that *John or Mary came* is relevant. (Relation)
3. Hence, that *John came* would be relevant too.
4. Had the speaker believed that *John came*, she would have conveyed that instead (Quantity)
5. Hence she must not believe that *John came*. → Ignorance

Ignorance and possibility implicatures

Classical explanation

1. The speaker said '*John or Mary came*'.
2. Hence, that *John or Mary came* is relevant. (Relation)
3. Hence, that *John came* would be relevant too.
4. Had the speaker believed that *John came*, she would have conveyed that instead (Quantity)
5. Hence she must not believe that *John came*. → Ignorance
6. She must believe that *John or Mary came*. (Quality)

Ignorance and possibility implicatures

Classical explanation

1. The speaker said '*John or Mary came*'.
2. Hence, that *John or Mary came* is relevant. (Relation)
3. Hence, that *John came* would be relevant too.
4. Had the speaker believed that *John came*, she would have conveyed that instead (Quantity)
5. Hence she must not believe that *John came*. → Ignorance
6. She must believe that *John or Mary came*. (Quality)
7. Hence, she must consider it possible that *Mary came*.
→ Possibility

Ignorance and possibility implicatures

Classical explanation

1. The speaker said '*John or Mary came*'.
2. Hence, that *John or Mary came* is relevant. (Relation)
3. Hence, that *John came* would be relevant too.
4. Had the speaker believed that *John came*, she would have conveyed that instead (Quantity)
5. Hence she must not believe that *John came*. → Ignorance
6. She must believe that *John or Mary came*. (Quality)

Ignorance and possibility implicatures

Classical explanation

1. The speaker said '*John or Mary came*'.
2. Hence, that *John or Mary came* is relevant. (Relation)
3. Hence, that *John came* would be relevant too.
4. Had the speaker believed that *John came*, she would have conveyed that instead (Quantity)
5. Hence she must not believe that *John came*. → Ignorance

Ignorance and possibility implicatures

Classical explanation

1. The speaker said '*John or Mary came*'.
 2. Hence, that *John or Mary came* is relevant.
 3. Hence, that *John came* would be relevant too. ??
 4. Had the speaker believed that *John came*, she would have conveyed that instead
 5. Hence she must not believe that *John came*.
-
- ▶ What are the relevant alternatives?
 - ▶ Semantically there is nothing special about a disjunct.
 - ▶ A syntactic explanation would not generalize.

Ignorance and possibility implicatures

Classical explanation

1. The speaker said '*One of John and Mary came*'.
 2. Hence, that *one of John and Mary came* is relevant.
 3. Hence, that *John came* would be relevant too. ??
 4. Had the speaker believed that *John came*, she would have conveyed that instead
 5. Hence she must not believe that *John came*.
-
- ▶ What are the relevant alternatives?
 - ▶ Semantically there is nothing special about a disjunct.
 - ▶ A syntactic explanation would not generalize.

Ignorance and possibility implicatures

Classical explanation

1. The speaker said '*Maybe John came*'.
 2. Hence, that *maybe John came* is relevant.
 3. Hence, that *certainly John came* would be relevant too. ??
 4. Had the speaker believed that *certainly John came*, she would have conveyed that instead
 5. Hence she must not believe that *certainly John came*.
-
- ▶ What are the relevant alternatives?
 - ▶ Semantically there is nothing special about a disjunct.
 - ▶ A syntactic explanation would not generalize.

Ignorance and possibility implicatures

Classical explanation

1. The speaker said '*Most people came*'.
 2. Hence, that *most people came* is relevant.
 3. Hence, that *all people came* would be relevant too. ??
 4. Had the speaker believed that *all people came*, she would have conveyed that instead
 5. Hence she must not believe that *all people came*.
-
- ▶ What are the relevant alternatives?
 - ▶ Semantically there is nothing special about a disjunct.
 - ▶ A syntactic explanation would not generalize.

Ignorance and possibility implicatures

Classical explanation

1. The speaker said '*Five people came*'.
 2. Hence, that *five people came* is relevant.
 3. Hence, that *six people came* would be relevant too. ??
 4. Had the speaker believed that *six people came*, she would have conveyed that instead
 5. Hence she must not believe that *six people came*.
-
- ▶ What are the relevant alternatives?
 - ▶ Semantically there is nothing special about a disjunct.
 - ▶ A syntactic explanation would not generalize.

Ignorance and possibility implicatures

Classical explanation

1. The speaker said '*It's warm*'.
 2. Hence, that *it is warm* is relevant.
 3. Hence, that *it were hot* would be relevant too. ??
 4. Had the speaker believed that *it was hot*, she would have conveyed that instead
 5. Hence she must not believe that *it was hot*.
-
- ▶ What are the relevant alternatives?
 - ▶ Semantically there is nothing special about a disjunct.
 - ▶ A syntactic explanation would not generalize.

Ignorance and possibility implicatures

Classical explanation

1. The speaker said '*John or Mary came*'.
 2. Hence, that *John or Mary came* is relevant. (Relation)
 3. Hence, that *John came* would be relevant too.
 4. Had the speaker believed that *John came*, she would have conveyed that instead (Quantity)
 5. Hence she must not believe that *John came*.
-
- ▶ What are the relevant alternatives?
 - ▶ Semantically there is nothing special about a disjunct.
 - ▶ A syntactic explanation would not generalize.

Ignorance and possibility implicatures

Classical explanation

1. The speaker said '*John or Mary came*'.
2. Hence, that *John or Mary came* is relevant. (Relation)
3. Hence, that *John came* would be relevant too.
4. Had the speaker believed that *John came*, she would have conveyed that instead (Quantity)
5. Hence she must not believe that *John came*.

Ignorance and possibility implicatures

Classical explanation

1. The speaker said '*John or Mary came*'.
 2. Hence, that *John or Mary came* is relevant. (Relation)
 3. Hence, that *John came* would be relevant too.
 4. Had the speaker believed that *John came*, she would have conveyed that instead (**Quantity**)
 5. Hence she must not believe that *John came*.
-
- ▶ What is the conversational goal?
 - ▶ **Quantity**: Be just as informative as required for the goal of the conversation.

Ignorance and possibility implicatures

Classical explanation

1. The speaker said '*John or Mary came*'.
 2. Hence, that *John or Mary came* is relevant. (Relation)
 3. Hence, that *John came* would be relevant too.
 4. Had the speaker believed that *John came*, she would have conveyed that instead (Quantity)
 5. Hence she must not believe that *John came*.
-
- ▶ What is the conversational goal?
 - ▶ **Quantity**: Be just as informative as required **to be maximally informative**.

Ignorance and possibility implicatures

A first inquisitive account (Groenendijk and Roelofsen 2009, Ciardelli et al. 2009)

Ignorance and possibility implicatures

A first inquisitive account (Groenendijk and Roelofsen 2009, Ciardelli et al. 2009)

- ▶ **Quality:** Say only what you believe to be true.

Ignorance and possibility implicatures

A first inquisitive account (Groenendijk and Roelofsen 2009, Ciardelli et al. 2009)

- ▶ **Quality:** Propose A only if
 - (i) you believe in $\bigcup A$ (informative sincerity)
 - (ii) you consider all $a \in A$ possible (attentive sincerity), and
 - (iii) you cannot resolve the issue of A (inquisitive sincerity)

Ignorance and possibility implicatures

A first inquisitive account (Groenendijk and Roelofsen 2009, Ciardelli et al. 2009)

- ▶ **Quality:** Propose A only if
 - you believe in $\bigcup A$ (informative sincerity)
 - you consider all $a \in A$ possible (attentive sincerity), and
 - you cannot resolve the issue of A (inquisitive sincerity)

1. The speaker said '*John or Mary came*'.

Ignorance and possibility implicatures

A first inquisitive account (Groenendijk and Roelofsen 2009, Ciardelli et al. 2009)

- ▶ **Quality:** Propose A only if
 - you believe in $\bigcup A$ (informative sincerity)
 - you consider all $a \in A$ possible (attentive sincerity), and
 - you cannot resolve the issue of A (inquisitive sincerity)

1. The speaker said '*John or Mary came*'.
2. She must believe that John or Mary came. (inf. sinc.)

Ignorance and possibility implicatures

A first inquisitive account (Groenendijk and Roelofsen 2009, Ciardelli et al. 2009)

- ▶ **Quality:** Propose A only if
 - you believe in $\bigcup A$ (informative sincerity)
 - you consider all $a \in A$ possible (attentive sincerity), and
 - you cannot resolve the issue of A (inquisitive sincerity)

1. The speaker said '*John or Mary came*'.
2. She must believe that John or Mary came. (inf. sinc.)
3. She must consider it possible that John came. (att. sinc.)

Ignorance and possibility implicatures

A first inquisitive account (Groenendijk and Roelofsen 2009, Ciardelli et al. 2009)

- ▶ **Quality:** Propose A only if
 - you believe in $\bigcup A$ (informative sincerity)
 - you consider all $a \in A$ possible (attentive sincerity), and
 - you cannot resolve the issue of A (inquisitive sincerity)

1. The speaker said '*John or Mary came*'.
2. She must believe that John or Mary came. (inf. sinc.)
3. She must consider it possible that John came. (att. sinc.)
4. She raises the issue of whether John came or Mary.

Ignorance and possibility implicatures

A first inquisitive account (Groenendijk and Roelofsen 2009, Ciardelli et al. 2009)

- ▶ **Quality:** Propose A only if
 - (i) you believe in $\bigcup A$ (informative sincerity)
 - (ii) you consider all $a \in A$ possible (attentive sincerity), and
 - (iii) you cannot resolve the issue of A (inquisitive sincerity)

1. The speaker said '*John or Mary came*'.
2. She must believe that John or Mary came. (inf. sinc.)
3. She must consider it possible that John came. (att. sinc.)
4. She raises the issue of whether John came or Mary.
5. This must be an issue, too, for herself. (inq. sinc.)

Ignorance and possibility implicatures

A first inquisitive account (Groenendijk and Roelofsen 2009, Ciardelli et al. 2009)

- ▶ **Quality:** Propose A only if
 - (i) you believe in $\cup A$ (informative sincerity)
 - (ii) you consider all $a \in A$ possible (attentive sincerity), and
 - (iii) you cannot resolve the issue of A (inquisitive sincerity)

1. The speaker said '*John or Mary came*'.
2. She must believe that John or Mary came. (inf. sinc.)
3. She must consider it possible that John came. (att. sinc.)
4. She raises the issue of whether John came or Mary.
5. This must be an issue, too, for herself. (inq. sinc.)
6. Hence, she must not believe that John came. → **ignorance**

Ignorance and possibility implicatures

A first inquisitive account (Groenendijk and Roelofsen 2009, Ciardelli et al. 2009)

- ▶ **Quality:** Propose A only if
 - (i) you believe in $\cup A$ (informative sincerity)
 - (ii) you consider all $a \in A$ possible (attentive sincerity), and
 - (iii) you cannot resolve the issue of A (inquisitive sincerity)

1. The speaker said '*John or Mary came*'.
2. She must believe that John or Mary came. (inf. sinc.)
3. She must consider it possible that John came. (att. sinc.)
4. She raises the issue of whether John came or Mary.
5. This must be an issue, too, for herself. (inq. sinc.)
6. Hence, she must not believe that John came. → **ignorance**

However:

- ▶ This seems too rigid: quiz contexts do require informative sincerity, but not inquisitive and attentive.

Ignorance and possibility implicatures

A first inquisitive account (Groenendijk and Roelofsen 2009, Ciardelli et al. 2009)

- ▶ **Quality:** Propose A only if
 - (i) you believe in $\cup A$ (informative sincerity)
 - (ii) you consider all $a \in A$ possible (attentive sincerity), and
 - (iii) you cannot resolve the issue of A (inquisitive sincerity)

1. The speaker said '*John or Mary came*'.
2. She must believe that John or Mary came. (inf. sinc.)
3. She must consider it possible that John came. (att. sinc.)
4. She raises the issue of whether John came or Mary.
5. This must be an issue, too, for herself. (inq. sinc.)
6. Hence, she must not believe that John came. → **ignorance**

However:

- ▶ This seems too rigid: quiz contexts do require informative sincerity, but not inquisitive and attentive.
- ▶ And also: what a waste!

Aims of this talk

Aims of this talk

Aim 1

To maintain the spirit of the classical explanation, using the richness of unrestricted inquisitive semantics to solve the two problems (characterizing relevance and goal).

Exhaustivity implicatures

(1) I saw John or Mary in the park.

↷ I did not see both

Exhaustivity implicatures

(1) I saw John or Mary in the park.

↷ I did not see both

- ▶ Many expressions can implicate *exhaustivity*.

Exhaustivity implicatures

(1) I saw John or Mary in the park.

↷ I did not see both

- ▶ Many expressions can implicate *exhaustivity*.
- ▶ Existing accounts typically rely on a *competence assumption* to turn an ignorance implicature into exhaustivity:

Exhaustivity implicatures

(1) I saw John or Mary in the park.

↷ I did not see both

- ▶ Many expressions can implicate *exhaustivity*.
- ▶ Existing accounts typically rely on a *competence assumption* to turn an ignorance implicature into exhaustivity:

1. The speaker said 'John or Mary came'
2. ... (as above)

Exhaustivity implicatures

(1) I saw John or Mary in the park.

↷ I did not see both

- ▶ Many expressions can implicate *exhaustivity*.
- ▶ Existing accounts typically rely on a *competence assumption* to turn an ignorance implicature into exhaustivity:

1. The speaker said 'John or Mary came'
2. ... (as above)
3. The speaker cannot know that John came.

Exhaustivity implicatures

(1) I saw John or Mary in the park.

↷ I did not see both

- ▶ Many expressions can implicate *exhaustivity*.
- ▶ Existing accounts typically rely on a *competence assumption* to turn an ignorance implicature into exhaustivity:

1. The speaker said 'John or Mary came'
2. ... (as above)
3. The speaker cannot know that John came.
4. The speaker has an opinion as to whether they both came.

Exhaustivity implicatures

(1) I saw John or Mary in the park.

↪ I did not see both

- ▶ Many expressions can implicate *exhaustivity*.
- ▶ Existing accounts typically rely on a *competence assumption* to turn an ignorance implicature into exhaustivity:

1. The speaker said 'John or Mary came'
2. ... (as above)
3. The speaker cannot know that John came.
4. The speaker has an opinion as to whether they both came.
5. Hence, she must believe that not both came.

Exhaustivity implicatures

(1) I saw John or Mary in the park.

↪ I did not see both

- ▶ Many expressions can implicate *exhaustivity*.
- ▶ Existing accounts typically rely on a *competence assumption* to turn an ignorance implicature into exhaustivity:

1. The speaker said 'John or Mary came'
 2. ... (as above)
 3. The speaker cannot know that John came.
 4. The speaker has an opinion as to whether they both came.
 5. Hence, she must believe that not both came.
- ▶ This holds for 'old' accounts of utterances in isolation, as well as newer accounts of responses to a question (Schulz and Van Rooij 2004, Spector 2007).

Exhaustivity implicatures

(1) I saw John or Mary in the park.

↪ I did not see both

- ▶ Many expressions can implicate *exhaustivity*.
- ▶ Existing accounts typically rely on a *competence assumption* to turn an ignorance implicature into exhaustivity:

1. The speaker said 'John or Mary came'
 2. ... (as above)
 3. The speaker cannot know that John came.
 4. The speaker has an opinion as to whether they both came.
 5. Hence, she must believe that not both came.
- ▶ This holds for 'old' accounts of utterances in isolation, as well as newer accounts of responses to a question (Schulz and Van Rooij 2004, Spector 2007).
 - ▶ And the new accounts are quite elaborate (but do not take my word for it).

Aims of this talk

Aim 1

To maintain the spirit of the classical explanation, using the richness of unrestricted inquisitive semantics to solve the two problems (characterizing relevance and goal).

Aims of this talk

Aim 1

To maintain the spirit of the classical explanation, using the richness of unrestricted inquisitive semantics to solve the two problems (characterizing relevance and goal).

Aim 2

To give a new account of exhaustivity implicatures, in particular those of responses to an initiative.

Structure

Setting the scene

Aims of this talk

Framework: unrestricted inquisitive semantics

Ignorance and possibility

Characterising relevance and goal

Possibility and attentive 'might'

Escape hatches for the existential quantifier

Exhaustivity implicatures

In inquisitive pragmatics

Exhaustivity and focus

Mention-some questions

Conclusion

Framework: unrestricted inquisitive semantics

Whiteboard intermezzo!

Structure

Setting the scene

Aims of this talk

Framework: unrestricted inquisitive semantics

Ignorance and possibility

Characterising relevance and goal

Possibility and attentive 'might'

Escape hatches for the existential quantifier

Exhaustivity implicatures

In inquisitive pragmatics

Exhaustivity and focus

Mention-some questions

Conclusion

Relevant alternatives

Challenge

How to characterise which proposals may take the place of X in:

4. 'Had the speaker believed X , she should have said so.'

Relevant alternatives

Challenge

How to characterise which proposals may take the place of X in:

4. 'Had the speaker believed X , she should have said so.'

Assumed division of labour

- ▶ The goal is (typically) to settle a proposal in a most informative way.
- ▶ Relevance is closed under entailment.

Characterising the goal

Characterising the goal

Settling responses

A proposal A is settled by a response B iff $\exists \alpha \in A$ s.t. $\cup B \subseteq \alpha$.

Characterising the goal

Settling responses

A proposal A is settled by a response B iff $\exists \alpha \in A$ s.t. $\cup B \subseteq \alpha$.

Comparative settling

A response B settles proposal A *more strongly* than a response B' , if $\exists \alpha \in A$ s.t. $\cup B \subseteq \alpha$ and $\cup B' \not\subseteq \alpha$.

Characterising the goal

Settling responses

A proposal A is settled by a response B iff $\exists \alpha \in A$ s.t. $\cup B \subseteq \alpha$.

Comparative settling

A response B settles proposal A *more strongly* than a response B' , if $\exists \alpha \in A$ s.t. $\cup B \subseteq \alpha$ and $\cup B' \not\subseteq \alpha$.

Proposal under discussion

In the context there is a proposal under discussion, the *PUD*.

Characterising the goal

Settling responses

A proposal A is settled by a response B iff $\exists \alpha \in A$ s.t. $\cup B \subseteq \alpha$.

Comparative settling

A response B settles proposal A *more strongly* than a response B' , if $\exists \alpha \in A$ s.t. $\cup B \subseteq \alpha$ and $\cup B' \not\subseteq \alpha$.

Proposal under discussion

In the context there is a proposal under discussion, the *PUD*.

Default assumption

The *PUD* is the most recently made proposal

→ but see Liz' talk tomorrow.

Characterising the goal

Settling responses

A proposal A is settled by a response B iff $\exists \alpha \in A$ s.t. $\cup B \subseteq \alpha$.

Comparative settling

A response B settles proposal A *more strongly* than a response B' , if $\exists \alpha \in A$ s.t. $\cup B \subseteq \alpha$ and $\cup B' \not\subseteq \alpha$.

Proposal under discussion

In the context there is a proposal under discussion, the *PUD*.

Default assumption

The *PUD* is the most recently made proposal

→ but see Liz' talk tomorrow.

- ▶ **Quantity:** Make your possibilities as informative as required for the goal of the conversation.

Characterising the goal

Settling responses

A proposal A is settled by a response B iff $\exists \alpha \in A$ s.t. $\cup B \subseteq \alpha$.

Comparative settling

A response B settles proposal A *more strongly* than a response B' , if $\exists \alpha \in A$ s.t. $\cup B \subseteq \alpha$ and $\cup B' \not\subseteq \alpha$.

Proposal under discussion

In the context there is a proposal under discussion, the *PUD*.

Default assumption

The *PUD* is the most recently made proposal

→ but see Liz' talk tomorrow.

- ▶ **Quantity:** Make your possibilities as informative as required
to maximally strongly settle the *PUD*.

Characterising relevance

Characterising relevance

Relevant proposals

The context provides a set of relevant proposals, the REL , that is closed under entailment:

if $A \in REL$ and $B \models A$, then $B \in REL$.

Characterising relevance

Relevant proposals

The context provides a set of relevant proposals, the REL , that is closed under entailment:

if $A \in REL$ and $B \models A$, then $B \in REL$.

Intuition:

- ▶ To entail what was previously said, is to provide support.

Characterising relevance

Relevant proposals

The context provides a set of relevant proposals, the REL , that is closed under entailment:

if $A \in REL$ and $B \models A$, then $B \in REL$.

Intuition:

- ▶ To entail what was previously said, is to provide support.
- ▶ When it is relevant that John came, it is also relevant that John came and it's the birthday of Prince Charles.

Characterising relevance

Relevant proposals

The context provides a set of relevant proposals, the REL , that is closed under entailment:

if $A \in REL$ and $B \models A$, then $B \in REL$.

Intuition:

- ▶ To entail what was previously said, is to provide support.
- ▶ When it is relevant that John came, it is also relevant that John came and it's the birthday of Prince Charles.
- ▶ Being over-informative is a matter of Quantity: division of labour.

Characterising relevance

Relevant proposals

The context provides a set of relevant proposals, the *REL*, that is closed under entailment:

if $A \in REL$ and $B \models A$, then $B \in REL$.

Intuition:

- ▶ To entail what was previously said, is to provide support.
- ▶ When it is relevant that John came, it is also relevant that John came and it's the birthday of Prince Charles.
- ▶ Being over-informative is a matter of Quantity: division of labour.

Default assumption

The *PUD*, with all proposals that entail it, are the only relevant proposals.

Characterising relevance

Relevant proposals

The context provides a set of relevant proposals, the REL , that is closed under entailment:

if $A \in REL$ and $B \models A$, then $B \in REL$.

Intuition:

- ▶ To entail what was previously said, is to provide support.
- ▶ When it is relevant that John came, it is also relevant that John came and it's the birthday of Prince Charles.
- ▶ Being over-informative is a matter of Quantity: division of labour.

Default assumption

The PUD , with all proposals that entail it, are the only relevant proposals.

- ▶ **Relation:** Only say what you believe to be relevant.

Characterising relevance

Relevant proposals

The context provides a set of relevant proposals, the REL , that is closed under entailment:

if $A \in REL$ and $B \models A$, then $B \in REL$.

Intuition:

- ▶ To entail what was previously said, is to provide support.
- ▶ When it is relevant that John came, it is also relevant that John came and it's the birthday of Prince Charles.
- ▶ Being over-informative is a matter of Quantity: division of labour.

Default assumption

The PUD , with all proposals that entail it, are the only relevant proposals.

- ▶ **Relation:** Let your proposal entail the PUD .

Characterising relevance

Relevant proposals

The context provides a set of relevant proposals, the REL , that is closed under entailment:

if $A \in REL$ and $B \models A$, then $B \in REL$.

Intuition:

- ▶ To entail what was previously said, is to provide support.
- ▶ When it is relevant that John came, it is also relevant that John came and it's the birthday of Prince Charles.
- ▶ Being over-informative is a matter of Quantity: division of labour.

Default assumption

The PUD , with all proposals that entail it, are the only relevant proposals.

- ▶ **Relation:** Let your proposal entail the PUD .

Warning: This is **unrestricted** entailment!

Ignorance and possibility implicatures

New inquisitive pragmatics account

Ignorance and possibility implicatures

New inquisitive pragmatics account

- ▶ **Quality:** Say only what you believe to be true.
- ▶ **Relation:** Let your proposal entail the *PUD*
- ▶ **Quantity:** Make your possibilities as informative as required to maximally strongly settle the *PUD*.

Ignorance and possibility implicatures

New inquisitive pragmatics account

- ▶ **Quality:** Say only what you believe to be true.
- ▶ **Relation:** Let your proposal entail the *PUD*
- ▶ **Quantity:** Make your possibilities as informative as required to maximally strongly settle the *PUD*.

1. The speaker said '*John or Mary came*'.

Ignorance and possibility implicatures

New inquisitive pragmatics account

- ▶ **Quality:** Say only what you believe to be true.
 - ▶ **Relation:** Let your proposal entail the *PUD*
 - ▶ **Quantity:** Make your possibilities as informative as required to maximally strongly settle the *PUD*.
1. The speaker said '*John or Mary came*'.
 2. The *PUD* must contain the possibilities that John came, and that Mary came. (Relation, Quantity)

Ignorance and possibility implicatures

New inquisitive pragmatics account

- ▶ **Quality:** Say only what you believe to be true.
 - ▶ **Relation:** Let your proposal entail the *PUD*
 - ▶ **Quantity:** Make your possibilities as informative as required to maximally strongly settle the *PUD*.
1. The speaker said '*John or Mary came*'.
 2. The *PUD* must contain the possibilities that John came, and that Mary came. (Relation, Quantity)
 3. Had the speaker known that John came, she could have settled it more strongly. (Quantity)

Ignorance and possibility implicatures

New inquisitive pragmatics account

- ▶ **Quality:** Say only what you believe to be true.
 - ▶ **Relation:** Let your proposal entail the *PUD*
 - ▶ **Quantity:** Make your possibilities as informative as required to maximally strongly settle the *PUD*.
1. The speaker said '*John or Mary came*'.
 2. The *PUD* must contain the possibilities that John came, and that Mary came. (Relation, Quantity)
 3. Had the speaker known that John came, she could have settled it more strongly. (Quantity)
 4. Hence, she must not believe that John came. → **ignorance**

Ignorance and possibility implicatures

New inquisitive pragmatics account

- ▶ **Quality:** Say only what you believe to be true.
 - ▶ **Relation:** Let your proposal entail the *PUD*
 - ▶ **Quantity:** Make your possibilities as informative as required to maximally strongly settle the *PUD*.
1. The speaker said '*John or Mary came*'.
 2. The *PUD* must contain the possibilities that John came, and that Mary came. (Relation, Quantity)
 3. Had the speaker known that John came, she could have settled it more strongly. (Quantity)
 4. Hence, she must not believe that John came. → **ignorance**
 5. But she must believe that John or Mary came. (Quality)

Ignorance and possibility implicatures

New inquisitive pragmatics account

- ▶ **Quality:** Say only what you believe to be true.
 - ▶ **Relation:** Let your proposal entail the *PUD*
 - ▶ **Quantity:** Make your possibilities as informative as required to maximally strongly settle the *PUD*.
1. The speaker said '*John or Mary came*'.
 2. The *PUD* must contain the possibilities that John came, and that Mary came. (Relation, Quantity)
 3. Had the speaker known that John came, she could have settled it more strongly. (Quantity)
 4. Hence, she must not believe that John came. → **ignorance**
 5. But she must believe that John or Mary came. (Quality)
 6. Hence she must consider it possible that Mary came.
→ **possibility**

Structure

Setting the scene

Aims of this talk

Framework: unrestricted inquisitive semantics

Ignorance and possibility

Characterising relevance and goal

Possibility and attentive 'might'

Escape hatches for the existential quantifier

Exhaustivity implicatures

In inquisitive pragmatics

Exhaustivity and focus

Mention-some questions

Conclusion

Attentive 'might'

(Ciardelli, Groenendijk & Roelofsen, 2009, 2010)

Attentive 'might'

(Ciardelli, Groenendijk & Roelofsen, 2009, 2010)

Idea:

- ▶ 'Might p ' draws attention to p without committing to anything.

Attentive 'might'

(Ciardelli, Groenendijk & Roelofsen, 2009, 2010)

Idea:

- ▶ 'Might p ' draws attention to p without committing to anything.
- ▶ Translate 'might p ' as ' $p \vee \top$ '

Attentive 'might'

(Ciardelli, Groenendijk & Roelofsen, 2009, 2010)

Idea:

- ▶ 'Might p ' draws attention to p without committing to anything.
- ▶ Translate 'might p ' as ' $p \vee \top$ '
- ▶ The epistemic flavour of 'might' is (primarily) an implicature.

Attentive 'might'

(Ciardelli, Groenendijk & Roelofsen, 2009, 2010)

Idea:

- ▶ 'Might p ' draws attention to p without committing to anything.
 - ▶ Translate 'might p ' as ' $p \vee \top$ '
 - ▶ The epistemic flavour of 'might' is (primarily) an implicature.
 - ▶ This explains the equivalence between a and b below:
- (2) a. John might be in London or he might be in Paris
b. John might be in London and he might be in Paris

Attentive 'might'

(Ciardelli, Groenendijk & Roelofsen, 2009, 2010)

Idea:

- ▶ 'Might p ' draws attention to p without committing to anything.
- ▶ Translate 'might p ' as ' $p \vee \top$ '
- ▶ The epistemic flavour of 'might' is (primarily) an implicature.
- ▶ This explains the equivalence between a and b below:

- (2) a. John might be in London or he might be in Paris
b. John might be in London and he might be in Paris
- (3) a. John might speak Russian or he might speak French
b. John might speak Russian and he might speak French

Purely attentive 'might'

- ▶ They rely on attentive sincerity for the epistemic flavour...

Purely attentive 'might'

- ▶ They rely on attentive sincerity for the epistemic flavour...
- ▶ I have assumed that possibility derives from ignorance.

Purely attentive 'might'

- ▶ They rely on attentive sincerity for the epistemic flavour...
- ▶ I have assumed that possibility derives from ignorance.

Prediction

The epistemic flavour of 'might' disappears with the ignorance implicature.

Purely attentive 'might'

- ▶ They rely on attentive sincerity for the epistemic flavour...
- ▶ I have assumed that possibility derives from ignorance.

Prediction

The epistemic flavour of 'might' disappears with the ignorance implicature.

- (4)
- a. Teacher: Next one: the streets are wet. Has it been raining?
 - b. Student: Well, if the streets are wet, it must have been raining.
 - c. Teacher: Ah, but the neighbour might have been washing his car.
 - d. Student: The neighbour doesn't have a car!
 - e. Teacher: Very good! Another one correct.

Structure

Setting the scene

Aims of this talk

Framework: unrestricted inquisitive semantics

Ignorance and possibility

Characterising relevance and goal

Possibility and attentive 'might'

Escape hatches for the existential quantifier

Exhaustivity implicatures

In inquisitive pragmatics

Exhaustivity and focus

Mention-some questions

Conclusion

A short narrative

A short narrative

- (5) A person in a white coat came to me yesterday. It was a man, with short hair, grayish black. He claimed to be from the planet K-Pax. His name was Prott. ...

A short narrative

- (5) A person in a white coat came to me yesterday. It was a man, with short hair, grayish black. He claimed to be from the planet K-Pax. His name was Prott. ...
- ▶ The speaker is inquisitively unsincere! Why?

A short narrative

- (5) A person in a white coat came to me yesterday. It was a man, with short hair, grayish black. He claimed to be from the planet K-Pax. His name was Prott. ...
- ▶ The speaker is inquisitively unsincere! Why?
 - ▶ The speaker is unable to describe the referent concisely.

A short narrative

- (5) A person in a white coat came to me yesterday. It was a man, with short hair, grayish black. He claimed to be from the planet K-Pax. It was Prott. ...
- ▶ The speaker is inquisitively unsincere! Why?
 - ▶ The speaker is unable to describe the referent concisely.

A short narrative

- (5) A person in a white coat came to me yesterday. It was a man, with short hair, grayish black. He claimed to be from the planet K-Pax. It was Prott. ...
- ▶ The speaker is inquisitively unsincere! Why?
 - ▶ The speaker is unable to describe the referent concisely.
 - ▶ The speaker slowly increases granularity for didactic reasons.

A short narrative

- (5) A person in a white coat came to me yesterday. It was a man, with short hair, grayish black. He claimed to be from the planet K-Pax. It was Prott. ...
- ▶ The speaker is inquisitively unsincere! Why?
 - ▶ The speaker is unable to describe the referent concisely.
 - ▶ The speaker slowly increases granularity for didactic reasons.
 - ▶ The speaker seeks to build up tension.

A short narrative

- (5) A person in a white coat came to me yesterday. It was a man, with short hair, grayish black. He claimed to be from the planet K-Pax. It was Prott. ...
- ▶ The speaker is inquisitively unsincere! Why?
 - ▶ The speaker is unable to describe the referent concisely.
 - ▶ The speaker slowly increases granularity for didactic reasons.
 - ▶ The speaker seeks to build up tension.
 - ▶ The speaker is setting up a guessing game.

A short narrative

(5) A person in a white coat came to me yesterday. It was a man, with short hair, grayish black. He claimed to be from the planet K-Pax. It was Prott. ...

- ▶ The speaker is inquisitively unsincere! Why?
 - ▶ The speaker is unable to describe the referent concisely.
 - ▶ The speaker slowly increases granularity for didactic reasons.
 - ▶ The speaker seeks to build up tension.
 - ▶ The speaker is setting up a guessing game.
 - ▶ The speaker is a very bad rapper.
 - ▶ ...

A short narrative

(5) A person in a white coat came to me yesterday. It was a man, with short hair, grayish black. He claimed to be from the planet K-Pax. It was Prott. ...

- ▶ The speaker is inquisitively unsincere! Why?
 - ▶ The speaker is unable to describe the referent concisely.
 - ▶ The speaker slowly increases granularity for didactic reasons.
 - ▶ The speaker seeks to build up tension.
 - ▶ The speaker is setting up a guessing game.
 - ▶ The speaker is a very bad rapper.
 - ▶ ...

(6) John, Mary, Prott or Suzy came to me yesterday. It was a man, with short hair, grayish black. He claimed to be from the planet K-Pax. His name was Prott. ...

A short narrative

(5) A person in a white coat came to me yesterday. It was a man, with short hair, grayish black. He claimed to be from the planet K-Pax. It was Prott. ...

- ▶ The speaker is inquisitively unsincere! Why?
 - ▶ The speaker is unable to describe the referent concisely.
 - ▶ The speaker slowly increases granularity for didactic reasons.
 - ▶ The speaker seeks to build up tension.
 - ▶ The speaker is setting up a guessing game.
 - ▶ The speaker is a very bad rapper.
 - ▶ ...

(6) John, Mary, Prott or Suzy came to me yesterday. It was a man, with short hair, grayish black. He claimed to be from the planet K-Pax. His name was Prott. ...

Observation

For disjunction, the first two explanations are unavailable.

An intuitive explanation

Explanation

An intuitive explanation

Explanation

- ▶ Semantically, disjunction and existential quantification are indistinguishable.

An intuitive explanation

Explanation

- ▶ Semantically, disjunction and existential quantification are indistinguishable.
- ▶ Disjunction, but not the existential quantifier, explicitly mention two possibilities, thereby:

An intuitive explanation

Explanation

- ▶ Semantically, disjunction and existential quantification are indistinguishable.
- ▶ Disjunction, but not the existential quantifier, explicitly mention two possibilities, thereby:
 - ▶ indicating the speaker's ability; and
 - ▶ locking on a particular level of granularity.

An intuitive explanation

Explanation

- ▶ Semantically, disjunction and existential quantification are indistinguishable.
- ▶ Disjunction, but not the existential quantifier, explicitly mention two possibilities, thereby:
 - ▶ indicating the speaker's ability; and
 - ▶ locking on a particular level of granularity.
- ▶ This rules out the first two explanations in case of disjunction.

An intuitive explanation

Explanation

- ▶ Semantically, disjunction and existential quantification are indistinguishable.
- ▶ Disjunction, but not the existential quantifier, explicitly mention two possibilities, thereby:
 - ▶ indicating the speaker's ability; and
 - ▶ locking on a particular level of granularity.
- ▶ This rules out the first two explanations in case of disjunction.
- ▶ For existentials, these provide an *escape hatches* to block ignorance implicatures.

Escape hatches in pragmatic reasoning

Escape hatches in pragmatic reasoning

1. The speaker said '*A man came to me*'.

Escape hatches in pragmatic reasoning

1. The speaker said '*A man came to me*'.
2. Had the speaker known John came, she should have said it.
(Quantity)

Escape hatches in pragmatic reasoning

1. The speaker said '*A man came to me*'.
2. Had the speaker known John came, she should have said it.
(Quantity)
3. Hence, she must not believe that John came.

Escape hatches in pragmatic reasoning

1. The speaker said '*A man came to me*'.
2. Had the speaker known John came, **and been able to utter it, and desired this level of granularity**, she should have said it.
(Quantity)
3. Hence, she must not believe that John came.

Escape hatches in pragmatic reasoning

1. The speaker said '*A man came to me*'.
2. Had the speaker known John came, and been able to utter it, and desired this level of granularity, she should have said it.
(Quantity)
3. ↗ Hence, she must not believe that John came.

Escape hatches in pragmatic reasoning

1. The speaker said '*A man came to me*'.
2. Had the speaker known John came, and been able to utter it, and desired this level of granularity, she should have said it. (Quantity)
3. ↗ Hence, she must not believe that John came.

Prediction

Existentials trigger ignorance implicatures only when the ability and granularity escape hatches are ruled out.

Escape hatches in pragmatic reasoning

1. The speaker said '*One of John and Bob came to me*'.
2. Had the speaker known John came, and been able to utter it, and desired this level of granularity, she should have said it. (Quantity)
3. ↗ Hence, she must not believe that John came.

Prediction

Existentials trigger ignorance implicatures only when the ability and granularity escape hatches are ruled out.

Escape hatches in pragmatic reasoning

1. The speaker said '*One of John and Bob came to me*'.
2. Had the speaker known John came, and been able to utter it, and desired this level of granularity, she should have said it. (Quantity)
3. Hence, she must not believe that John came.

Prediction

Existentials trigger ignorance implicatures only when the ability and granularity escape hatches are ruled out.

Sneak preview: Scalar modifiers

This afternoon

- (7) a. At least three boys came
- b. More than two boys came

Sneak preview: Scalar modifiers

This afternoon

- (7) a. At least three boys came
b. More than two boys came

Observation

Superlative modifiers mention a possibility explicitly, while comparative modifiers do not.

Structure

Setting the scene

Aims of this talk

Framework: unrestricted inquisitive semantics

Ignorance and possibility

Characterising relevance and goal

Possibility and attentive 'might'

Escape hatches for the existential quantifier

Exhaustivity implicatures

In inquisitive pragmatics

Exhaustivity and focus

Mention-some questions

Conclusion

Exhaustivity of an utterance in isolation

Analogously to the classical approach

Exhaustivity of an utterance in isolation

Analogously to the classical approach

- ▶ **Quality:** Say only what you believe to be true.
- ▶ **Relation:** Let your proposal entail the *PUD*
- ▶ **Quantity:** Make your possibilities just as informative as required to maximally strongly settle the *PUD*.

Exhaustivity of an utterance in isolation

Analogously to the classical approach

- ▶ **Quality:** Say only what you believe to be true.
- ▶ **Relation:** Let your proposal entail the *PUD*
- ▶ **Quantity:** Make your possibilities just as informative as required to maximally strongly settle the *PUD*.

1. The speaker said '*John or Mary came*'.

Exhaustivity of an utterance in isolation

Analogously to the classical approach

- ▶ **Quality:** Say only what you believe to be true.
 - ▶ **Relation:** Let your proposal entail the *PUD*
 - ▶ **Quantity:** Make your possibilities just as informative as required to maximally strongly settle the *PUD*.
1. The speaker said '*John or Mary came*'.
 2. This entails the *PUD*.
 3. Hence, that *John came and maybe Mary too* also entails the *PUD*.

Exhaustivity of an utterance in isolation

Analogously to the classical approach

- ▶ **Quality:** Say only what you believe to be true.
 - ▶ **Relation:** Let your proposal entail the *PUD*
 - ▶ **Quantity:** Make your possibilities just as informative as required to maximally strongly settle the *PUD*.
1. The speaker said '*John or Mary came*'.
 2. This entails the *PUD*.
 3. Hence, that *John came and maybe Mary too* also entails the *PUD*.
 4. Had the speaker known this, she should have conveyed it.

Exhaustivity of an utterance in isolation

Analogously to the classical approach

- ▶ **Quality:** Say only what you believe to be true.
 - ▶ **Relation:** Let your proposal entail the *PUD*
 - ▶ **Quantity:** Make your possibilities just as informative as required to maximally strongly settle the *PUD*.
1. The speaker said '*John or Mary came*'.
 2. This entails the *PUD*.
 3. Hence, that *John came and maybe Mary too* also entails the *PUD*.
 4. Had the speaker known this, she should have conveyed it.
 5. Hence, she must not believe that John came.

Exhaustivity of an utterance in isolation

Analogously to the classical approach

- ▶ **Quality:** Say only what you believe to be true.
 - ▶ **Relation:** Let your proposal entail the *PUD*
 - ▶ **Quantity:** Make your possibilities just as informative as required to maximally strongly settle the *PUD*.
1. The speaker said '*John or Mary came*'.
 2. This entails the *PUD*.
 3. Hence, that *John came and maybe Mary too* also entails the *PUD*.
 4. Had the speaker known this, she should have conveyed it.
 5. Hence, she must not believe that John came.
 6. The speaker has an opinion as to whether they both came.
(Competence assumption)

Exhaustivity of an utterance in isolation

Analogously to the classical approach

- ▶ **Quality:** Say only what you believe to be true.
 - ▶ **Relation:** Let your proposal entail the *PUD*
 - ▶ **Quantity:** Make your possibilities just as informative as required to maximally strongly settle the *PUD*.
1. The speaker said '*John or Mary came*'.
 2. This entails the *PUD*.
 3. Hence, that *John came and maybe Mary too* also entails the *PUD*.
 4. Had the speaker known this, she should have conveyed it.
 5. Hence, she must not believe that John came.
 6. The speaker has an opinion as to whether they both came. (Competence assumption)
 7. Hence, she must believe that not both came.

Exhaustivity of an utterance in isolation

Analogously to the classical approach

- ▶ **Quality:** Say only what you believe to be true.
 - ▶ **Relation:** Let your proposal entail the *PUD*
 - ▶ **Quantity:** Make your possibilities just as informative as required to maximally strongly settle the *PUD*.
1. The speaker said '*John or Mary came*'.
 2. This entails the *PUD*.
 3. Hence, that *John came and maybe Mary too* also entails the *PUD*.
 4. Had the speaker known this, she should have conveyed it.
 5. Hence, she must not believe that John came.
 6. The speaker has an opinion as to whether they both came.
(Competence assumption)
 7. Hence, she must believe that not both came.

Exhaustivity in general

Exhaustivity in general

- ▶ The exhaustivity of utterances in isolation may not be very interesting:

Exhaustivity in general

- ▶ The exhaustivity of utterances in isolation may not be very interesting:
 - ▶ In a context where the competence assumption can be made, typically the exhaustivity itself can be assumed.

Exhaustivity in general

- ▶ The exhaustivity of utterances in isolation may not be very interesting:
 - ▶ In a context where the competence assumption can be made, typically the exhaustivity itself can be assumed.

(8) I saw John or Bob in the park.

Exhaustivity in general

- ▶ The exhaustivity of utterances in isolation may not be very interesting:
 - ▶ In a context where the competence assumption can be made, typically the exhaustivity itself can be assumed.

(8) I saw John or Bob in the park (I'm not sure who it was).

Exhaustivity in general

- ▶ The exhaustivity of utterances in isolation may not be very interesting:
 - ▶ In a context where the competence assumption can be made, typically the exhaustivity itself can be assumed.

(8) I saw John or Bob in the park (I'm not sure who it was).

- ▶ The exhaustivity of *responses* to questions is much more robust:

Exhaustivity in general

- ▶ The exhaustivity of utterances in isolation may not be very interesting:
 - ▶ In a context where the competence assumption can be made, typically the exhaustivity itself can be assumed.

(8) I saw John or Bob in the park (I'm not sure who it was).

- ▶ The exhaustivity of *responses* to questions is much more robust:

(9) Was John or Bob in the park? - Yes, John was.

Exhaustivity in general

- ▶ The exhaustivity of utterances in isolation may not be very interesting:
 - ▶ In a context where the competence assumption can be made, typically the exhaustivity itself can be assumed.

(8) I saw John or Bob in the park (I'm not sure who it was).

- ▶ The exhaustivity of *responses* to questions is much more robust:

(9) Was John or Bob in the park? - Yes, John was.

- ▶ So can we do without the competence assumption in this case?

The exhaustivity implicature of a response

(Westera 2012)

The exhaustivity implicature of a response

(Westera 2012)

Intuition:

1. The initiator said 'John or Mary came'.

The exhaustivity implicature of a response

(Westera 2012)

Intuition:

1. The initiator said 'John or Mary came'.
2. The responder said 'John came', leaving the possibility that Mary came unattended.

The exhaustivity implicature of a response

(Westera 2012)

Intuition:

1. The initiator said 'John or Mary came'.
2. The responder said 'John came', leaving the possibility that Mary came unattended.
3. The reason must be that she believes Mary did not come (Quality).

The exhaustivity implicature of a response

(Westera 2012)

Intuition:

1. The initiator said 'John or Mary came'.
2. The responder said 'John came', leaving the possibility that Mary came **unattended**.
3. The reason must be that she believes Mary did not come (Quality).

The exhaustivity implicature of a response

(Westera 2012)

Intuition:

1. The initiator said 'John or Mary came'.
2. The responder said 'John came', leaving the possibility that Mary came unattended.
3. The reason must be that she believes Mary did not come (Quality).
 - ▶ Because attending can be done without committing, no competence assumption is required.

The exhaustivity implicature of a response

(Westera 2012)

Intuition:

1. The initiator said 'John or Mary came'.
2. The responder said 'John came', leaving the possibility that Mary came unattended.
3. The reason must be that she believes Mary did not come (Quality).
 - ▶ Because attending can be done without committing, no competence assumption is required.
 - ▶ We need a maxim that says: do not unattend without a reason.

The exhaustivity implicature of a response

(Westera 2012)

Intuition:

1. The initiator said 'John or Mary came'.
2. The responder said 'John came', leaving the possibility that Mary came unattended.
3. The reason must be that she believes Mary did not come (Quality).
 - ▶ Because attending can be done without committing, no competence assumption is required.
 - ▶ We need a maxim that says: do not unattend without a reason.
→ We already have one!

The exhaustivity implicature of a response

Reformulation of (Westera 2012)

The exhaustivity implicature of a response

Reformulation of (Westera 2012)

- ▶ **Quality:** Say only what you believe to be true.
- ▶ **Relation:** Let your proposal entail the *PUD*
- ▶ **Quantity:** Make your possibilities just as informative as required to maximally strongly settle the *PUD*.

The exhaustivity implicature of a response

Reformulation of (Westera 2012)

- ▶ **Quality:** Say only what you believe to be true.
- ▶ **Relation:** Let your proposal entail the *PUD*
- ▶ **Quantity:** Make your possibilities just as informative as required to maximally strongly settle the *PUD*.

1. The speaker said '*John or Mary came*'.

The exhaustivity implicature of a response

Reformulation of (Westera 2012)

- ▶ **Quality:** Say only what you believe to be true.
- ▶ **Relation:** Let your proposal entail the *PUD*
- ▶ **Quantity:** Make your possibilities just as informative as required to maximally strongly settle the *PUD*.

1. The speaker said '*John or Mary came*'.

The exhaustivity implicature of a response

Reformulation of (Westera 2012)

- ▶ **Quality:** Say only what you believe to be true.
- ▶ **Relation:** Let your proposal entail the *PUD*
- ▶ **Quantity:** Make your possibilities just as informative as required to maximally strongly settle the *PUD*.

1. The speaker said '*John or Mary came*'.
2. The responder said '*John came*'.

The exhaustivity implicature of a response

Reformulation of (Westera 2012)

- ▶ **Quality:** Say only what you believe to be true.
- ▶ **Relation:** Let your proposal entail the *PUD*
- ▶ **Quantity:** Make your possibilities just as informative as required to maximally strongly settle the *PUD*.

1. The speaker said '*John or Mary came*'.
2. The responder said '*John came*'.
3. This does not entail the *PUD*. (*Relation)

The exhaustivity implicature of a response

Reformulation of (Westera 2012)

- ▶ **Quality:** Say only what you believe to be true.
- ▶ **Relation:** Let your proposal entail the *PUD*
- ▶ **Quantity:** Make your possibilities just as informative as required to maximally strongly settle the *PUD*.

1. The speaker said '*John or Mary came*'.
2. The responder said '*John came*'.
3. This does not entail the *PUD*. (*Relation)
4. The responder could have said '*John came, and maybe Mary too*', which does entail the *PUD*.

The exhaustivity implicature of a response

Reformulation of (Westera 2012)

- ▶ **Quality:** Say only what you believe to be true.
- ▶ **Relation:** Let your proposal entail the *PUD*
- ▶ **Quantity:** Make your possibilities just as informative as required to maximally strongly settle the *PUD*.

1. The speaker said '*John or Mary came*'.
2. The responder said '*John came*'.
3. This does not entail the *PUD*. (*Relation)
4. The responder could have said '*John came, and maybe Mary too*', which does entail the *PUD*.
5. But she did not. The reason must be that she wants to avoid the implicature that possibly Mary came.

The exhaustivity implicature of a response

Reformulation of (Westera 2012)

- ▶ **Quality:** Say only what you believe to be true.
- ▶ **Relation:** Let your proposal entail the *PUD*
- ▶ **Quantity:** Make your possibilities just as informative as required to maximally strongly settle the *PUD*.

1. The speaker said '*John or Mary came*'.
2. The responder said '*John came*'.
3. This does not entail the *PUD*. (*Relation)
4. The responder could have said '*John came, and maybe Mary too*', which does entail the *PUD*.
5. But she did not. The reason must be that she wants to avoid the implicature that possibly Mary came.
6. She must believe that Mary did not come.

Unrestrictedness and exhaustivity

- ▶ Intuitively, without attentive content there is no unattending, hence no exhaustivity.
- ▶ But we can also frame it logically:

Unrestrictedness and exhaustivity

- ▶ Intuitively, without attentive content there is no unattending, hence no exhaustivity.
- ▶ But we can also frame it logically:

Exhaustivity, entailment and compliance

Exhaustivity is the weakest, differentiating point-wise strengthening that makes each compliant response entailing.

Unrestrictedness and exhaustivity

- ▶ Intuitively, without attentive content there is no unattending, hence no exhaustivity.
- ▶ But we can also frame it logically:

Exhaustivity, entailment and compliance

Exhaustivity is the weakest, differentiating point-wise strengthening that makes each compliant response entailing.

→ Balogh (2008)?

Unrestrictedness and exhaustivity

- ▶ Intuitively, without attentive content there is no unattending, hence no exhaustivity.
- ▶ But we can also frame it logically:

Exhaustivity, entailment and compliance

Exhaustivity is the weakest, differentiating point-wise strengthening that makes each compliant response entailing.

→ Balogh (2008)?

Exhaustivity and unrestrictedness

If compliance and entailment are the same order, no exhaustivity is needed.

Exhaustivity and focus

- (10) a. John or Mary came to the party.
b. JOHN ↑ or MARY ↓ came to the party.

Exhaustivity and focus

- (10) a. John or Mary came to the party.
b. JOHN ↑ or MARY ↓ came to the party.
- ▶ Why is exhaustivity focus-dependent?

Exhaustivity and focus

- (10) a. John or Mary came to the party.
b. JOHN ↑ or MARY ↓ came to the party.
- ▶ Why is exhaustivity focus-dependent?

Question-answer congruence of focus (Rooth, 1996)

The position of focus in an answer corresponds to the questioned position in a wh-question, or the disjuncts in an alternative question.

Exhaustivity and focus

- (10) a. John or Mary came to the party.
b. JOHN ↑ or MARY ↓ came to the party.
- ▶ Why is exhaustivity focus-dependent?

Focus and Contextual Question (Beaver and Clark, 2008)

A focused constituent presupposes a question under discussion, the Contextual Question, to which it claims to be an exhaustive answer.

Exhaustivity and focus

- (10) a. John or Mary came to the party.
b. JOHN ↑ or MARY ↓ came to the party.

- ▶ Why is exhaustivity focus-dependent?

Focus and Contextual Question (Beaver and Clark, 2008)

A focused constituent presupposes a question under discussion, the Contextual Question, to which it claims to be an exhaustive answer.

- ▶ We can take the Contextual Question to be the PUD.

Exhaustivity and focus

- (10) a. John or Mary came to the party.
b. JOHN ↑ or MARY ↓ came to the party.

- ▶ Why is exhaustivity focus-dependent?

Focus and Contextual Question (Beaver and Clark, 2008)

A focused constituent presupposes a question under discussion, the Contextual Question, to which it **claims** to be an exhaustive answer.

- ▶ We can take the Contextual Question to be the PUD.
- ▶ Does 'claims' mean 'entails' or 'implicates'?

Exhaustivity and focus

- (10) a. John or Mary came to the party.
b. JOHN ↑ or MARY ↓ came to the party.

- ▶ Why is exhaustivity focus-dependent?

Focus and Contextual Question (Beaver and Clark, 2008)

A focused constituent presupposes a question under discussion, the Contextual Question, to which it claims to be an exhaustive answer.

- ▶ We can take the Contextual Question to be the PUD.
- ▶ Does 'claims' mean 'entails' or 'implicates'?
- ▶ If 'implicates', we have a good story:

Exhaustivity and focus

- (10) a. John or Mary came to the party.
b. JOHN ↑ or MARY ↓ came to the party.

- ▶ Why is exhaustivity focus-dependent?

Focus and Contextual Question (Beaver and Clark, 2008)

A focused constituent presupposes a question under discussion, the Contextual Question, to which it claims to be an exhaustive answer.

- ▶ We can take the Contextual Question to be the PUD.
- ▶ Does 'claims' mean 'entails' or 'implicates'?
- ▶ If 'implicates', we have a good story:
 - ▶ Responses to the *PUD* implicate exhaustivity.

Exhaustivity and focus

- (10) a. John or Mary came to the party.
b. JOHN ↑ or MARY ↓ came to the party.

- ▶ Why is exhaustivity focus-dependent?

Focus and Contextual Question (Beaver and Clark, 2008)

A focused constituent presupposes a question under discussion, the Contextual Question, to which it claims to be an exhaustive answer.

- ▶ We can take the Contextual Question to be the PUD.
- ▶ Does 'claims' mean 'entails' or 'implicates'?
- ▶ If 'implicates', we have a good story:
 - ▶ Responses to the *PUD* implicate exhaustivity.
 - ▶ Focus serves the purpose only of highlighting that it is a response to the *PUD*, ensuring the implicatures are recognised.

Some examples

On the whiteboard!

(11) Who came to the party?

Some examples

On the whiteboard!

- (11) Who came to the party?
- a. JOHN came to the party ↓.

Some examples

On the whiteboard!

(11) Who came to the party?

a. JOHN came to the party ↓.

b. JOHN ↑ or MARY ↓ came to the party.

Some examples

On the whiteboard!

(11) Who came to the party?

- a. JOHN came to the party ↓.
- b. JOHN ↑ or MARY ↓ came to the party.
- c. ?? John came to the PARTY.

Some examples

On the whiteboard!

(11) Who came to the party?

- a. JOHN came to the party ↓.
- b. JOHN ↑ or MARY ↓ came to the party.
- c. ?? John came to the PARTY.
- d. ? JOHN OR MARY came to the party.

Some examples

On the whiteboard!

- (11) Who came to the party?
- a. JOHN came to the party ↓.
 - b. JOHN ↑ or MARY ↓ came to the party.
 - c. ?? John came to the PARTY.
 - d. ? JOHN OR MARY came to the party.
 - e. JOHN came to the party ↑.

Sneak preview: Scalar modifiers

(this afternoon)

Sneak preview: Scalar modifiers

(this afternoon)

Scalar modifiers 'at least', 'more than', etc., likewise presuppose a question(/proposal) under discussion.

Structure

Setting the scene

Aims of this talk

Framework: unrestricted inquisitive semantics

Ignorance and possibility

Characterising relevance and goal

Possibility and attentive 'might'

Escape hatches for the existential quantifier

Exhaustivity implicatures

In inquisitive pragmatics

Exhaustivity and focus

Mention-some questions

Conclusion

Mention-some questions

E.g., (Schulz and Van Rooij, 2005)

- ▶ Responses to wh-questions can be interpreted exhaustively or non-exhaustively.
- ▶ Questions that typically do not trigger exhaustivity are called 'mention-some' questions.

Mention-some questions

E.g., (Schulz and Van Rooij, 2005)

- ▶ Responses to wh-questions can be interpreted exhaustively or non-exhaustively.
- ▶ Questions that typically do not trigger exhaustivity are called 'mention-some' questions.

(12) A: Where can I buy an Italian newspaper?

B: In the little shop around the corner

✎ not anywhere else

A possible explanation

(Westera, 2012, inspired by Schulz and Van Rooij, 2005)

A possible explanation

(Westera, 2012, inspired by Schulz and Van Rooij, 2005)

1. The initiator asked 'Where can I buy an Italian newspaper?'

A possible explanation

(Westera, 2012, inspired by Schulz and Van Rooij, 2005)

1. The initiator asked 'Where can I buy an Italian newspaper?'
2. She considers this proposal to be relevant.

A possible explanation

(Westera, 2012, inspired by Schulz and Van Rooij, 2005)

1. The initiator asked 'Where can I buy an Italian newspaper?'
2. She considers this proposal to be relevant.
3. The responder said 'in the shop around the corner'.

A possible explanation

(Westera, 2012, inspired by Schulz and Van Rooij, 2005)

1. The initiator asked 'Where can I buy an Italian newspaper?'
2. She considers this proposal to be relevant.
3. The responder said 'in the shop around the corner'.
4. This leaves all other places unattended.

A possible explanation

(Westera, 2012, inspired by Schulz and Van Rooij, 2005)

1. The initiator asked 'Where can I buy an Italian newspaper?'
2. She considers this proposal to be relevant.
3. The responder said 'in the shop around the corner'.
4. This leaves all other places unattended.
5. The reason must be that she considers those places irrelevant.

A possible explanation

(Westera, 2012, inspired by Schulz and Van Rooij, 2005)

1. The initiator asked 'Where can I buy an Italian newspaper?'
2. She considers this proposal to be relevant.
3. The responder said 'in the shop around the corner'.
4. This leaves all other places unattended.
5. The reason must be that she considers those places irrelevant.
6. (no exhaustivity implicated)

However:

A possible explanation

(Westera, 2012, inspired by Schulz and Van Rooij, 2005)

1. The initiator asked 'Where can I buy an Italian newspaper?'
2. She considers this proposal to be **relevant**.
3. The responder said 'in the shop around the corner'.
4. This leaves all other places unattended.
5. The reason must be that she considers those places **irrelevant**.
6. (no exhaustivity implicated)

However:

- ▶ Canceling an implicature of the initiator, we would expect the response to be marked.

A possible explanation

(Westera, 2012, inspired by Schulz and Van Rooij, 2005)

1. The initiator asked 'Where can I buy an Italian newspaper?'
2. She considers this proposal to be relevant.
3. The responder said 'in the shop around the corner'.
4. This leaves all other places unattended.
5. The reason must be that she considers those places irrelevant.
6. (no exhaustivity implicated)

However:

- ▶ Canceling an implicature of the initiator, we would expect the response to be marked.
- ▶ Are those other places really *irrelevant*?

A possible explanation

(Westera, 2012, inspired by Schulz and Van Rooij, 2005)

1. The initiator asked 'Where can I buy an Italian newspaper?'
2. She considers this proposal to be relevant.
3. The responder said 'in the shop around the corner'.
4. This leaves all other places unattended.
5. The reason must be that she considers those places irrelevant.
6. (no exhaustivity implicated)

However:

- ▶ Canceling an implicature of the initiator, we would expect the response to be marked.
- ▶ Are those other places really *irrelevant*?
- ▶ Is there really no exhaustivity implicature?

A possible explanation

(Westera, 2012, inspired by Schulz and Van Rooij, 2005)

1. The initiator asked 'Where can I buy an Italian newspaper?'
2. She considers this proposal to be relevant.
3. The responder said 'in the shop around the corner'.
4. This leaves all other places unattended.
5. The reason must be that she considers those places irrelevant.
6. (no exhaustivity implicated)

However:

- ▶ Canceling an implicature of the initiator, we would expect the response to be marked.
- ▶ Are those other places really *irrelevant*?
- ▶ Is there really no exhaustivity implicature?

(13) A: Where can I buy an Italian newspaper?

B: In the little shop around the corner.

A possible explanation

(Westera, 2012, inspired by Schulz and Van Rooij, 2005)

1. The initiator asked 'Where can I buy an Italian newspaper?'
2. She considers this proposal to be relevant.
3. The responder said 'in the shop around the corner'.
4. This leaves all other places unattended.
5. The reason must be that she considers those places irrelevant.
6. (no exhaustivity implicated)

However:

- ▶ Canceling an implicature of the initiator, we would expect the response to be marked.
- ▶ Are those other places really *irrelevant*?
- ▶ Is there really no exhaustivity implicature?

(13) A: Where can I buy an Italian newspaper?

B: In the little shop around the corner.

↪ and in no other place that I can easily direct you to.

An alternative explanation: domain restriction

An alternative explanation: domain restriction

- ▶ Natural language quantifiers come with a contextual domain restriction (DR) (e.g., Stanley and Szabó, 2000)

An alternative explanation: domain restriction

- ▶ Natural language quantifiers come with a contextual domain restriction (*DR*) (e.g., Stanley and Szabó, 2000)

Hypothesis

The domain of quantification in mention-some contexts is restricted to places to which the speaker is easily directed.

An alternative explanation: domain restriction

- ▶ Natural language quantifiers come with a contextual domain restriction (*DR*) (e.g., Stanley and Szabó, 2000)

Hypothesis

The domain of quantification in mention-some contexts is restricted to places to which the speaker is easily directed.

- ▶ The presence of such weak exhaustivity implicatures is hard to verify.

An alternative explanation: domain restriction

- ▶ Natural language quantifiers come with a contextual domain restriction (*DR*) (e.g., Stanley and Szabó, 2000)

Hypothesis

The domain of quantification in mention-some contexts is restricted to places to which the speaker is easily directed.

- ▶ The presence of such weak exhaustivity implicatures is hard to verify.
- ▶ However, the hypothesis makes a more dramatic prediction:

An alternative explanation: domain restriction

- ▶ Natural language quantifiers come with a contextual domain restriction (*DR*) (e.g., Stanley and Szabó, 2000)

Hypothesis

The domain of quantification in mention-some contexts is restricted to places to which the speaker is easily directed.

- ▶ The presence of such weak exhaustivity implicatures is hard to verify.
- ▶ However, the hypothesis makes a more dramatic prediction:

Prediction

There exist no mention-some disjunctions.

Mention-some disjunctions?

Mention-some disjunctions?

(14) A: Will your father or mother be home?

B: Yes, my father will be home.

✎ my mother will not be home.

Mention-some disjunctions?

(14) A: Will your father or mother be home?

B: Yes, my father will be home.

✎ my mother will not be home.

Tentative explanation:

- ▶ But there is a modal 'will' there, over which it is hard for negation to scope.

Mention-some disjunctions?

(14) A: Will your father or mother be home?

B: Yes, my father will be home.

✎ my mother will not be home.

Tentative explanation:

- ▶ But there is a modal 'will' there, over which it is hard for negation to scope.
- ▶ The exhaustivity implicature is: it is not the case that my mother *will* be home (but she might be).

Mention-some disjunctions?

(14) A: Will your father or mother be home?

B: Yes, my father will be home.

✎ my mother will not be home.

Tentative explanation:

- ▶ But there is a modal 'will' there, over which it is hard for negation to scope.
- ▶ The exhaustivity implicature is: it is not the case that my mother *will* be home (but she might be).
- ▶ Without the modal, exhaustivity seems to occur as usual:

Mention-some disjunctions?

(14) A: Will your father or mother be home?

B: Yes, my father will be home.

✎ my mother will not be home.

Tentative explanation:

- ▶ But there is a modal 'will' there, over which it is hard for negation to scope.
- ▶ The exhaustivity implicature is: it is not the case that my mother *will* be home (but she might be).
- ▶ Without the modal, exhaustivity seems to occur as usual:

(15) A: Is your father or mother home?

B: Yes, my father is home. \leadsto my mother is not home.

Structure

Setting the scene

Aims of this talk

Framework: unrestricted inquisitive semantics

Ignorance and possibility

Characterising relevance and goal

Possibility and attentive 'might'

Escape hatches for the existential quantifier

Exhaustivity implicatures

In inquisitive pragmatics

Exhaustivity and focus

Mention-some questions

Conclusion

Conclusion

Conclusion

- ▶ Unrestricted inquisitive semantics enables us to capture *relevant alternatives*, as those that entail the *PUD* and provide just enough information to maximally strongly resolve it.

Conclusion

- ▶ Unrestricted inquisitive semantics enables us to capture *relevant alternatives*, as those that entail the *PUD* and provide just enough information to maximally strongly resolve it.
- ▶ We used these in deriving:
 - ▶ ignorance implicatures and possibility implicatures, without inquisitive/attentive sincerity;
 - ▶ exhaustivity implicatures of a response, without competence assumption.

Conclusion

- ▶ Unrestricted inquisitive semantics enables us to capture *relevant alternatives*, as those that entail the *PUD* and provide just enough information to maximally strongly resolve it.
- ▶ We used these in deriving:
 - ▶ ignorance implicatures and possibility implicatures, without inquisitive/attentive sincerity;
 - ▶ exhaustivity implicatures of a response, without competence assumption.
- ▶ We have looked at related topics: ‘might’, granularity, focus and mention-some questions.