Distinguishing between what is asserted and what is implied:
Identifying conversational implicatures.
Readings
Implicatures (Feb. 6-11)

• Grice, H.P. Logic and Conversation.
• Green, Georgia. Implicature
• Geis, Michael. Language of Television Advertising
  – “Saying things indirectly”
  – “The strength of a claim”
  – “Comparatives”
Who needs mistletoe.

Call 1-800-COOL-GIFT™ for Häagen-Dazs gift certificates. How you’re thanked is none of our business.
why?

because

Fish need to swim, birds need to fly. And, for the time being anyway, people need to drive. That's why Toyota is investing billions to reduce the impact our vehicles will have on the environment. Our breakthrough hybrid technology will allow vehicles to be dramatically cleaner, without compromising convenience or performance. We're building a greener Toyota. For all of Earth's travelers. For more information, call 1-800-GO-TOYOTA or visit our website at www.toyota.com/ecologic.

TOYOTA people drive us
Just saying it is enough to make you smile.

Behold the power of Cheese.
Trust.

(One word rarely used in the same sentence with "car dealer")
I used to trust any old herbs.


Nature's Resource is the one brand that always delivers the herbal power you pay for. Nature's Resource premium herbs are carefully selected from the world's leading herbal sources. Then, every batch of every herb undergoes unsurpassed levels of scientific testing— to ensure the quality and beneficial herbal content of every item. Every time.

So if you're taking herbs as a natural part of your healthy lifestyle, don't take anything for granted. Take Nature's Resource and discover why we're the top selling line of premium herbs at America's supermarkets, drug and discount stores.
Implicatures: A special case of situations in which the perceived meaning extends beyond the literal meaning.

Implicatures are a special kind of inference that are only indirectly related to denotational meaning.
Not all inferences are *indirectly* related to denotational meaning:

**Entailments** are inferences that derive directly from denotational meaning.
Examples of entailments:

John is a father.
-> John is male.

All of the senators believed Monica’s story
-> Some of the Senators believed Monica’s story.

Michael is an American basketball player.
-> Michael is a basketball player.
Formal definition of entailment:

If A entails B, then in every situation where A is true, it must be the case that B is also true.
Corollary:

If $A$ entails $B$, then $A$ and not-$B$ is a logical contradiction:

John is a father and she is female.

All of the senators believed Monica and some of the senators did not believe Monica.
Two sentences can jointly entail a third (as found in classic logical inferences):

John is a father.
John is a teenager.
\[\rightarrow\] John is a teenaged father.

John is either an actor or a student.
John is not a student.
\[\rightarrow\] John is an actor.

Al is taller than George.
George is taller than Laura.
\[\rightarrow\] Al is taller than Laura.
Not all inferences are logical -- that is, they aren’t logically based on the compositional meaning of a sentence, but rather, on a perception of the speaker’s intent.
A. It’s possible that Bush will be re-elected.

triggers the inference:

B. It is possible that he will not be re-elected.

Question: Does A entail B?
Answer:
No.

A and B do not necessarily hold in the same situations
-- it is possible for A to be true, but for B not to be true
A. It’s possible that Bush will be re-elected.

B. It is possible that he will not be re-elected.

It’s possible that Bush will be re-elected. In fact, it’s inevitable.
What generates this inference?

H.P. Grice:
We assume that speakers communicate in a cooperative, rational fashion, and we have specific expectations about what counts as cooperative, rational communicative behavior.
Other examples of inferences that are triggered by the same general expectations:

**Speaker A**: How was your date with Jared?
**Speaker B**: It was better than a root canal.
-> triggers the inference that the date was not good.

**Speaker A**: Would you recommend we hire this candidate as an attorney in our firm?
**Speaker B**: She cooks an excellent seafood risotto.
-> triggers the inference that the recommender does not have a high opinion of the candidate.
**Expectations:** Speakers conform to the following principles:

- **Quantity:** Speakers provide as much information as is required, and no more.
- **Quality:** Speakers do not assert what they do not believe to be true.
- **Relevance:** Speakers make each comment relevant in the context of others.
- **Manner:** Speakers avoid ambiguity, obscurity, disorderly communication.
Quantity: Speakers provide as much information as is required, and no more
Examples of quantity-based implicatures: Assuming the speaker is being informative.

Kid:  Mom, can I go to the movies with Jesse?
Parent:  Maybe.

Lawyer:  Is it possible that the baby’s death resulted from an existing genetic defect and not from complications of surgery?
Prozac can help.

difficulty sleeping, drowsiness, anxiety and nervousness. These tend to go away within a few weeks of starting treatment, and usually aren't serious enough to make most people stop taking it. However, if you are concerned about a side effect, or if you develop a rash, tell your doctor right away. And don't forget to tell your doctor about any other medicines you are taking. Some people should not take Prozac, especially people on MAO inhibitors.

As you start feeling better, your doctor can suggest therapy or other means to help you work through your depression. Remember, Prozac is a prescription medicine, and it isn't right for everyone. Only your doctor can decide if Prozac is right for you—or for someone you love. Prozac has been prescribed for more than 17 million Americans. Chances are someone you know is getting it together again because of it.

Welcome back.

Please see important information on following page...
"New PEDIGREE PUPPY with Lamb gives my puppies better nutrition than Iams."

"New PEDIGREE PUPPY® with Lamb is a great way to get puppies to love their food. It's made with real lamb meat, chicken, milk and egg proteins, brewers' yeast and all the vitamins, minerals and essential oils puppies need to get all 8 building blocks of good nutrition. It's actually more nutritious than Iams Nature® and costs a lot less, too. I couldn't recommend a better puppy food."

Developed with Vets—Recommended by Top Breeders®
Examples of **quantity-based implicatures**: Assuming the speaker is being as informative as necessary or possible.

*Some of the senators believed Monica’s story.*
- > Triggers inference that not all the senators did.

*John is 5 feet tall.*
- > Triggers inference that he is not taller than 5 feet.
Using Quantity-based Implicatures in ads:
Implying an upper bound to performance of competing product.

*Other brands of orange juice give you some of the Vitamin C you need.*

-> Triggers inference that they don’t give you all the Vitamin C you need.
Your bank lets you pick the picture on your check. We give you free checks, free ATM withdrawals, no service fees on any transactions, and fresh coffee.

-> triggers inference that your bank doesn’t provide these features.
They have a 24-hour VoiceMail service. When you call us, you can talk to a friendly customer service rep. day or night.

-> triggers inference that competitors do not have live customer service reps available.
How low in tar can you go and still get good taste?

This low.

Golden Lights:
As low as you can go and still get good taste and smoking satisfaction.
Examples of **quantity-based** implicatures: Assuming the speaker is being no more informative than is appropriate:

- Interpreting adjectives as contrastive   e.g. “Pick up the plastic...”
Implying contrastiveness in ads:

“The feminine method for removing unwanted hair.”

“The easy way to lose weight.”

“The car dealer you can trust”
Examples of **quantity-based** implicatures: Assuming the speaker is being no more informative than is appropriate:

- Interpreting adjectives as contrastive e.g. “Pick up the plastic...”
- Inferring precision, importance of precision e.g. “Billy is 3 feet and 7/8 inches tall.”
Implying precision in ads:

- More than half of the women surveyed preferred Product X over all others.
- More than 57% of the women surveyed preferred Product X over all others.
- 99 44/100 % Pure
Dear Mister Language Person:

I am curious about the expression, "Part of this complete breakfast". The way it comes up is, my 5-year-old will be watching TV cartoon shows in the morning, and they'll show a commercial for a children's compressed breakfast compound such as "Froot Loops" or "Lucky Charms", and they always show it sitting on a table next to some actual food such as eggs, and the announcer says: "Part of this complete breakfast". Doesn't that really mean "Adjacent to this complete breakfast." or "On the same table as this complete breakfast"? And couldn't they make essentially the same claim if, instead of Froot Loops, they put a can of shaving cream there, or a dead bat?

Answer: Yes

-- Dave Barry, "Tips for Writer's"
Expectations: Speakers conform to following principles:

- **Quantity**: Speakers provide as much information as is required, and no more
- **Quality**: Speakers do not assert what they do not believe to be true
- **Relevance**: Speakers make each comment relevant in the context of others
- **Manner**: Speakers avoid ambiguity, obscurity, disorderly communication
Relevance: Speakers make each statement relevant in the context of others
Examples of relevance-based implicatures:

Q. Is the professor teaching CG7 any good?  
A. She keeps her shoelaces tied.

Q. Who is that pompous ass?  
A. Would you care for some salmon mousse?
Examples of **relevance-based implicatures:**

Q. Is the professor teaching CG7 any good?
A. She keeps her shoelaces tied.

Q. Who is that pompous ass?
A. Would you care for some salmon mousse?
Ask a Dermatologist
about the new way to
TAKE YEARS OFF
the way your skin looks

TIME-OFF REVITALIZER
ALMAY
HYPO-ALLERGENIC
TUESDAY.
Condition with Finesse.
Get Softbody.
Why?
Two conditioners.
One penetrates
for softness.
Get soft hair.
One evaporates
for body.
Get flat hair.

WEDNESDAY.
Use Finesse.
Get Softbody.
Get unbelievable
of them.

THURSDAY.
Use Finesse.
Get Softbody.
Get unbelievable
counter offer.

Friday.
Use Finesse.
Win lottery.
Quit job.
Move to Paris.

SOFT IS EASY.
SOFTBODY TAKES FINESSE.
Only Bioré Pore Perfect™ has the Pore Target System™

Dirt loses its last hiding place.

The best strip for clean pores.
Only the Bioré Pore Perfect Strip has the Pore Target System that works like a magnet to pull out dirt and blackheads for the deepest clean possible.

Works like a magnet:
- The Bioré Pore Target System: works like a magnet
- Pulls dirt, oil, and blackheads away
- Safe to use on nose

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“New PEDIGREE PUPPY® with Lamb gives my puppies better nutrition than Iams.”

Dr. Fran Smith, Veterinarian and Top Breeder of Champion Labrador Retrievers

“New PEDIGREE PUPPY® with Lamb is a great way to get puppies to love their food. It’s made with real lamb meat, chicken, milk and egg proteins, brewer’s yeast and all the vitamins, minerals and essential oils puppies need to get all B building blocks of good nutrition. It’s actually more nutritious than Iams® Natural® and costs a lot less, too. I couldn’t recommend a better puppy food.”

Test data based on a digestibility and preference study comparing PEDIGREE PUPPY® food with Lamb vs. Iams® Natural® Lamb Meal & Rice Formula for Puppies.

Developed with Vets—Recommended by Top Breeders®
DID YOU EAT YOUR FRUITS AND VEGETABLES TODAY?

SUPER JUICE SUPPLIES PHYTO-NUTRIENTS FROM 27 FRUITS AND VEGETABLES

Eating 3 servings of fruits and vegetables per day is recommended by the U.S. Department of Agriculture to maintain optimum health and to prevent certain diseases. Many of us may not be meeting our daily quota of these nutrient-rich foods. This may put us at risk.

That’s why we suggest that you include Super Juice™ in your dietary regimen. It contains many natural substances called “phyto-nutrients”, found in fruits and vegetables. Phyto-nutrients are rich in natural anti-oxidants, vitamins, trace minerals and enzymes that nourish and protect our bodies.

Super Juice™ offers a whole food and juice supplement with nutrients from 37 fruits and vegetables. Super Juice™ is uniquely bi-layered to aggregate the natural flavors. Each serving of Super Juice™ supplies the nutritional equivalent of 6 servings of fruits and vegetables. If you don’t get enough fruits and vegetables...supplement with Super Juice™.

Available at: Walgreens, Sam’s Club, CVS, Eckerd’s and your local pharmacy carrying Windmill Vitamins. For the store nearest you call 1-800-822-6320, ext. 42, Monday-Friday, 9-5 PST.
“Each serving of SuperJuice supplies the nutritional equivalent of 6 servings of fruits and vegetables” *

*based on beta carotene content.
Obsessive detailing.
endless design revisions.
heated debates.

And that was just the clock.
Relevance-based implicatures are context sensitive:

Obsessive detailing, endless design revisions, heated debates. And that was just the clock.

In the end, the design of the Chrysler LHS floundered due to poor priority decisions and micro-managing practices.
WILL NOT SHRINK
Marseilles
YOUR FLANNELS

Marseilles white soap is made solid. It will not float.
Ivory:

99 44/100% Pure.
It floats!
If you’re too tired to go out tonight, just think how you’ll feel at seventy three.

BEEFEATER
Live a little
Manner: Speakers avoid ambiguity, obscurity, disorderly communication
Examples of manner-based implicatures

Cecilia had a baby and she married Tim.

vs.

Cecilia married Tim and she had a baby.
Q. Did Joanna take CG 7?

A. She was physically present at every class and on the due date for each assignment she turned in some paper with markings and her name on top.
Ultra Fuel Sports Drink:

“An advanced anti-catabolic combination of ion-exchange whey protein/amino acids and high performance carbs that are crucial for nitrogen retention.”
Examples of intentional ambiguity:

"Down With Love"
- Continental Quilt Shoppe

"We go to a lot of pains"
- Bayer Aspirin

"Are you up in the air about your future? Maybe that's where you belong"
- Air Force ROTC

"Take your mother-in-law out back and shoot her."
- Kodak Film
Manner-based implicatures:
Hearers infer some specific intent for using one expression instead of an alternative
Excedrin® Migraine. The only non-prescription medicine approved for migraine pain relief.
Excedrin® Migraine. The only non-prescription medicine approved for the relief of migraine headache pain.
An announcement to physicians and migraine sufferers:

Clinical research has just proven that the formula in Excedrin® actually relieves migraine headache pain.

And because of the distinct nature of migraines, the FDA worked with Excedrin to develop a different package with specific information for migraine sufferers. So now next to Excedrin, there’s a new package - same medicine - called Excedrin® Migraine.

Excedrin Migraine. The only non-prescription medicine approved for migraine pain relief.

www.excedrin.com

Headache Resource Center
1-800-331-0021
Quality: Speakers do not assert what they do not believe to be true

When there is no way of in which the statement can be understood as adhering to this expectation, the speaker is typically understood as having ironic or metaphorical intent.
How to tell if an inference is an entailment or an implicature:

A. If it is an entailment:
   1. In any case where the utterance is true, the inference must be true as well.
   2. Joining the utterance and the negation of the inference together results in a logical contradiction (i.e. a sentence that can never be true)
How to tell if an inference is an entailment or an implicature:

B. If it is an implicature:

1. It fails the tests for entailments:
   a) It is possible to create a context where the inference would not be generated
   b) It can be cancelled
   (i.e. it is possible for the speaker to signal that the inference was not intended without resulting in a logical contradiction)

2. It is possible to describe how the inference came about as a result to the speakers and hearer's assuming the maxims of conversational cooperativeness.
a) John’s thesis is adequate.
\[\rightarrow b)\] John’s thesis is not good.

- If a) is true, does b) have to be true as well?
- Can b) be explicitly rejected without resulting in a logical contradiction?
- Can a story be told about how the inference is the result of one of the cooperativeness assumptions or maxims?
a) John’s thesis is adequate.
-> b) John’s thesis is not poor.

• If a) is true, does b) *have* to be true as well?
• Can b) be explicitly rejected without resulting in a logical contradiction?
• Can a story be told about how the inference is the result of one of the cooperativeness assumptions or maxims?
a) A promise is a promise.
   -> b) A promise must be kept.

- If a) is true, does b) have to be true as well?
- Can b) be explicitly rejected without resulting in a logical contradiction?
- Can a story be told about how the inference is the result of one of the cooperativeness assumptions or maxims?