

Entailment

Definition of Entailment

A relation between sentences (X, Y), such that:

- if sentence X is true,
- sentence Y *must* be true,
- (Conversely, it is impossible for X to be true and Y be false.)

An Example

X

I saw Maggie at the rave.

Y's = truth conditions for X

- There was a rave.
- Maggie was there.
- I saw Maggie.
- I have eyes.
- There was light at the rave.
- I have a visual cortex.
- ...



Maggie: Brooks, J. L., Groening, M., & Simon, S. (Executive Producers). (2015, March 21). Caption this! [Facebook, Timeline Photos] Retrieved from <https://www.facebook.com/TheSimpsons/photos/a.473850413696.246070.29534858696/10152787105933697>; Rave: zacky24/iStock/Getty Images

Mutual Entailment

- X entails Y (if X is true, Y must be true)

and

- Y entails X (if Y is true, X must be true)

e.g.,

X: I saw Maggie at the rave.

X: There was a rave.

Y: There was a rave.

Y: I saw Maggie at the rave.

- X's and Y's

- I saw Maggie at the rave.
- Maggie, I saw at the rave.
- It was Maggie I saw at the rave.
- Maggie was seen by me at the rave.

} mutual entailment



Maggie: Brooks, J. L., Groening, M., & Simon, S. (Executive Producers). (2015, March 21). Caption this! [Facebook, Timeline Photos] Retrieved from <https://www.facebook.com/TheSimpsons/photos/a.473850413696.246070.29534858696/10152787105933697>; Rave: zacky24/iStock/Getty Images; Hand: Noedelhap/iStock/Thinkstock

Paraphrase



Structural synonymy = mutual entailment

Different ways to say the same proposition:

- I saw Maggie at the rave.
- Maggie, I saw at the rave.
- It was Maggie I saw at the rave.
- Maggie was seen by me at the rave.

Maggie: Brooks, J. L., Groening, M., & Simon, S. (Executive Producers). (2015, March 21). *Caption this!* [Facebook, Timeline Photos] Retrieved from <https://www.facebook.com/TheSimpsons/photos/a.473850413696.246070.29534858696/10152787105933697>; Rave: zacky24/iStock/Getty Images; Hand: Noedelhap/iStock/Thinkstock