

## Making things happen

Sufficiency causatives in English and Japanese (and German?)

Sven Lauer

Stanford University  
sven.lauer@stanford.edu

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## The Basic puzzle

What does causative *make* mean?

- (1)
  - a. John made the children dance.
  - b. John caused the children to dance.
- Both sentences: John 'brought about' the dancing of the children.
- (1a) says more.
- But what?
- **Preliminary answer:** that the children did not have a say in the matter, that the will of the children was immaterial.
- This is what I call the COERCIVE IMPLICATION of *make*.

## The Basic Puzzle (cont'd)

What does causative *make* mean?

- (2)  $make(S, O, P) = cause(S, O, P)$  & if  $O$  had not wanted  $P(O)$  to come about, it still would have.
  - Done.
  - Not so fast!
  - *Make* can take non-volitional, even inanimate surface objects (= 'causees').
- (3) The sun made the flowers wilt.

### Problem

- We want to predict the coercive implication.
- We cannot make reference to the causee's volitional state.

## The Basic Puzzle (summary)

What does causative *make* mean?

### Wanted:

- A **unified** semantics for *make*, ...
- that predicts the coercive implication with volitional causees, ...
- but also applies to non-volitional causees.

- 1 *make* is not a hyponym of *cause*
- 2 *make* as predicating sufficiency
- 3 Characterizing sufficiency
- 4 Japanese *-sase* causatives

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## A misleading intuition

*make* is not a hyponym of *cause*

(2)  $make(S, O, P) = cause(S, O, P) \ \& \ \dots$

- Plausible, widely shared intuition (Lewis 1973, and many after him):
    - *cause* entails 'counterfactual necessity'
    - i.e. (4) entails (5):
- (4) The recession caused John to lose his house.
- (5) (Other things being equal,) If the recession had not happened, John would not have lost his house.

## A misleading intuition

*make* is not a hyponym of *cause*

**Claim:** *make* does **not** entail counterfactual necessity.

- i.e., despite appearances, (6) does not entail (7):
- (6) Society made me kill.
- (7) If society had not been the way it was, I would not have killed.

### Example (Failure of necessity-entailment)

- (8) Last year, I was not sure if I should go to band camp, but then my mother insisted that I go. **I am so happy she made me go:** I had the best summer ever.

*Does not entail:* If the mother of the speaker had not insisted, the speaker would not have gone to band camp.

### Summary

- *make* does not entail counterfactual necessity.
- New questions:
  - How do we characterize the 'bringing about' component of *make*?
  - Why does it often **seem** as if *make* entailed counterfactual necessity?

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## Introducing sufficiency

- Idea: *make* predicates SUFFICIENCY (as opposed to necessity)
- Let us assume that (9), roughly, means (10):
  - (9) The thunderstorm made the children scream.
  - (10) The thunderstorm was sufficient for the screaming of the children.
- What does (10) amount to?
- Preliminary characterization: An event being sufficient for another means that the first **ensures** that the second happens.
  - (11) The thunderstorm ensured that the children screamed.
  - (12) Given the thunderstorm, the children could not but scream.

## Introducing sufficiency

Benefit 1: The coercive implication comes for free

### Assumption:

$A \text{ made } B \text{ VP} \simeq A \text{ ensured that } B \text{ VPed.}$

- We have not encoded the coercive implication directly.
- Yet, it arises directly **when the embedded eventuality is a volitional action.**
  - (1a) John made the children dance.  
⇒ What John did ensured that the children would dance.
- Given sufficiency, the children cannot have acted freely.
  - Suppose they did.
  - Then they could have decided to do otherwise.
  - But then, it is not appropriate to say that John **ensured** that the children would dance.

## Introducing sufficiency

Benefit 2: Causal Perfection

### Assumption:

$A \text{ made } B \text{ VP} \simeq A \text{ was sufficient for } B\text{'s VPing.}$

- There is a strong tendency to interpret statements of sufficiency as asserting necessity, as well.
- This is known as **CONDITIONAL PERFECTION** (Geis and Zwicky 1971, van der Auwera 1997, Horn 2000, von Stechow 2003, Fintel Ms., Franke 2009)

- (13) If you study for the exam, you will get an A.  
     $\rightsquigarrow$  If you don't study for the exam, you will not get an A.
- (14) If you study for the exam, you will get an A. Actually, even if you don't study you might get an A.

## Introducing sufficiency

Benefit 2: Causal Perfection

### Claim

*make* predicates sufficiency, the necessity implications come about pragmatically through perfection.

- Challenge: There should be contexts where the necessity can be coherently denied.
- And there are:
  - (15) My husband's arrest (finally) made me get a divorce.  
    ... Even if his arrest had not made me do it, I might have gotten a divorce anyways, given the way he treated me.

## Introducing sufficiency (Summary)

### Summary

Assuming that *make* predicates sufficiency ...

- ... allows to capture the coercive implication without hard-coding it.
- ... gives us a handle on the perceived necessity implications of *make*, explaining them as instances of perfection.

## Outline

- 1 *make* is not a hyponym of *cause*
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## Characterizing sufficiency

- First shot: If  $C$  was sufficient for  $E$ , then **nothing other than  $C$  was necessary for  $E$** .
- Too strong: This way, nothing would ever be sufficient.
- Second shot: If  $C$  was sufficient for  $E$ , then **nothing that happened after  $C$  was necessary for  $E$** .
- We use a Thomason (1984)-style forward-branching model of time.
- *make* quantifies over worlds that **were possible futures of the actual world at the time of the cause**.

## Characterizing sufficiency

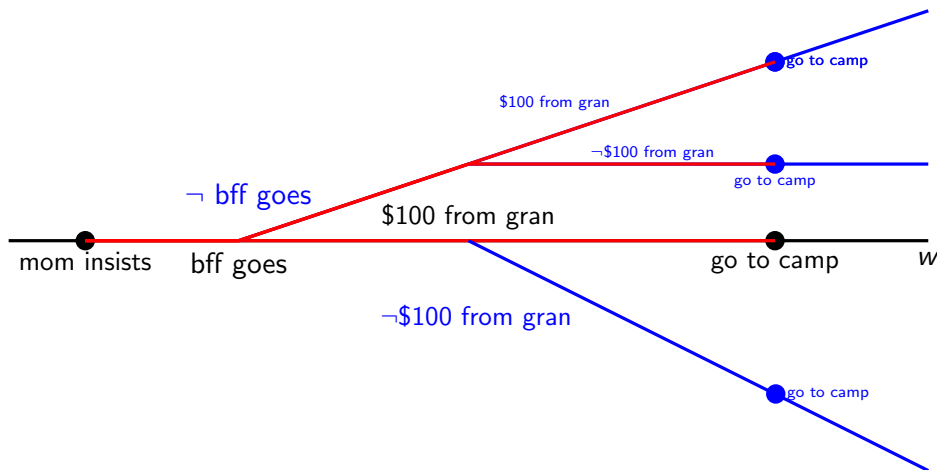
The basic idea

- *make* quantifies over worlds that **were possible futures of the actual world at the time of the cause**.
- **All** such worlds? Again, too strong:  
(1a) John made the children dance.
- (1a) clearly does not say that **nothing could have happened** to prevent the children from dancing.
- Idea: We look only at the futures **in which arbitrary sets of events that occurred after the cause did not happen**.

## Characterizing sufficiency

An illustration

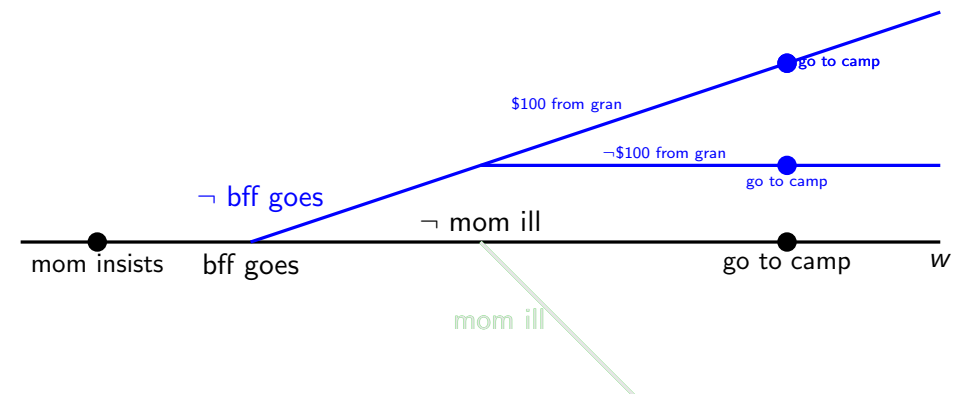
Leah's mom made her go to band camp (by insisting that she go).



## Characterizing sufficiency

An illustration

Leah's mom made her go to band camp (by insisting that she go).



## Characterizing sufficiency

The upshot

- $make(S, O, P) = \forall w' \in Fut_{w,S} : w' \models P(O)$   
where  $Fut_{w,S} :=$  the continuations of  $w$  at the time of  $S$  in which any set of events occurring in  $w$  did not occur.
- See Jayez and Dagnat (2009) for a characterization of 'automaticity' that is based on a very similar analytic intuition.
  - Pseudo-imperatives
    - (16) Come one step closer and I kiss/kill you.
  - von Stechow and Iatridou (2007): Sufficiency Modal Constructions
    - (17) To get good cheese, you only have to go to the North End!

## Characterizing Sufficiency

Two refinements

- Relative similarity.
  - We cannot always just 'kick out' certain events without introducing new ones.
  - For an event that actually occurred may have prevented another event from happening.
  - So we really have to look at worlds that are **maximally similar to the actual world** in which some actual events did not happen.
- Non-triviality.
  - As characterized so far, **every event subsequent to a sufficient cause counts as a sufficient cause**.
  - To exclude these spurious sufficient causes, we need to add a condition saying that **if the cause had not happened, the effect might not have happened**.

## Outline

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## Japanese *-sase* causatives

The meaning of Japanese *-sase* causatives varies with the case marking on the causee (with intransitive verbs, Harada (1973)):

- (18) a. Taroo-wa kodomo-o suwar-ase-ta.  
T.-TOP children-ACC sit-SASE-PAST  
'Taroo **made** the children sit down.'
- b. Taroo-wa kodomo-ni suwar-ase-ta.  
T.-TOP children-DAT sit-SASE-PAST  
'Taroo **let** the children sit down.'

- Coercive implication.

(19) Taroo-wa kodomo-o suwar-ase-ta.  
 T.-TOP children-ACC sit-SASE-PAST  
 'Taroo made the children sit down.'  
 ⇒ The children did not decide freely to sit down.

- But fine with inanimate causees:

(20) Taroo-ga isu-o taore-sase-ta.  
 T.-NOM chair-ACC fall=down-SASE-PAST  
 'Taroo made the chair fall down.'  
 (only indirect causation /bc blocking by lexical causative *taosu*)

Summary

- -o causatives: Much like English *make*.
- -ni causatives: Entail that causee executed action willingly, *let*-type meaning.

- Only applies to verbs denoting **volitional actions** (Harada (1973)):

(21) Taroo-wa tomodachi#-ni/✓-o komar-ase-ta.  
 T.-Top friend#-DAT/✓ACC be=bothered-SASE-past  
 'Taroo #let / ✓ caused his friend to be bothered.'

- Entails that **The action has been executed volitionally** (i.e. could not have been done by accident, etc.)

- -sase uniformly predicates causal sufficiency.
- -ni adds to this that the caused action was performed willingly.  
 ⇒ The cause(r) permitted the action or removed an obstacle.
- By blocking, -o -sase is infelicitous of the causee executed the caused action willingly.

- *let* is more general: Can work with non-actions:

(22) John let the ball roll all the way down the street.

### Proposal

*let* (in contradistinction to *allow* / *enable*) also predicates sufficiency, but adds an entailment that the causing 'event' was a 'failure to prevent': The causer could have done something to prevent the effect, but did not.

- Prediction: Cases like (22) are translated with *-o -sase*, which gets a *let*-type interpretation.

(23) Taroo-ga booru-**o**/**#-ni** michi-ni korogar-ase-ta.  
Taro-NOM ball-**ACC**/**#-DAT** street-LOC roll-SASE-PAST.  
'Taroo **let** the ball roll down the street.'

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## Summary

### The present analysis ...

- ... applies uniformly to all occurrences of causative *make*.
- ... derives the coercive implication where appropriate.
- ... puts the notion of sufficiency center-stage.
- ... and can explain putative necessity implications through perfection.

### The notion of sufficiency ...

- ... lets us specify a uniform meaning for Japanese *-sase*.
- Doing so helps us see where the analogy *-o : -ni :: make : let* breaks down

## Some possible futures at the time of the talk

- Causal necessity & sufficiency cross-linguistically
    - German *lassen*: An unmarked sufficiency causative?
  - *let* : *allow* :: *make* : *cause*
  - 'Direct causation' as causation that is both necessary and sufficient?
  - Causal necessity as a general way to capture the notion of a **result**, e.g. in resultatives:
- (24) John hammered the metal flat.  
≈ John hammered the metal and this hammering was sufficient for the metal to become flat.



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