

Causation and transitivity for L2 learners

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1. Introduction
2. Types of Causation
3. Hypotheses and Expectations
4. Data and Discussion
5. Conclusions
6. References

1. Introduction

Causation: cause-effect relationship (a cognitive and experiential universal)

Causativity: grammaticalized causation in different languages

→ grammaticalization in different languages can reveal rules that govern conceptualization differences

Method: elicitation of specific preferences corresponding with the different L1 of speakers

Speaker interpretation of causal relationships:

1. mapping the constituents (causer/causee) onto conceptual prototypes
2. recognizing the temporal order of the antecedent (cause) and consequent (effect) due to human temporal processing

1.1. Ambiguity and the L2 learner

Learner interpretation of ambiguity: assignment of conceptual roles

- uncontroversial in most causatives of the *break*-type
John breaks the glass → *The glass breaks*

Continuum of grammaticality:

- (1) *The knife cuts well*
- (1') *The bread cuts well*
- (1'') *The director cuts well*
- (2) ?*The axe splits well*
- (2') *The trunk splits well*
- (3) ??*John breaks well*
- (3') ?*The ice-pick breaks well*
- (3'') *The ice breaks well*

Problem case: Psych-verbs

- (4) *John amuses the audience* → **The audience amuses*
therefore **double bias:**
1. grammaticality judgment (L2!)
 2. causer/cause attribution

2. Types of Causation

Core of a causal situation: event 1 temporally precedes event 2

- occurrence of event 2 perceived to be dependent on occurrence of event 1: both form a cause-effect relationship

Acquisition of Causation: cf. *because* - sentences which reverse order

infant speech output: **epistemic causativity**

- (5) *Mom likes me because she buys me an ice-cream*

English: three-way causative system of grammaticalization

a) biclausal, series of simple verbal propositions:

John bought a knife because he needed it

b) complex verbal proposition:

John made us suffer

c) one simple proposition, usually the "effect": *The bottle broke*

2.1. Cause deletion in English

The bottle broke → omitted causing/precipitating event

causer: completely excluded

causee: structurally in position of exerting control (occupies subject position/agentive role)

Comrie: cause is structure-independent

- different means to express cause highlight focal elements of the causative situation

→ not rule-based but pragmatically conditioned argument supported

1. case-hierarchy of control of the causee
2. heterogeneous nature of the grammaticalization of cause:

PP: *because of, thanks to, due to, owed to, by dint of...*

Conjunctions: *because, so that*
passive *by*-phrase.

2.2. Conflation and degree of fusion

Cause and effect can be lexicalised with two different verbal elements or conflated into one verb

Degree of fusion leads to different types of causatives

Grammaticalization patterns:

1. generic/periphrastic/auxiliary/analytic (*make/have/let/get*)
- 2.1. synthetic 1 (*develop, drown, break = make break/drown*)
- 2.2. synthetic 2/morphological (*soften, en-able*)
3. lexical/suppletive (*kill, repair = make dead/whole*)

Type 1: causer in subject position

causee in object position

effect in non-finite clause

- (6) *I make/have/let/get John (to) clean the kitchen*

German: impoverished in periphrastic/analytic causatives

- *lassen* ("let"), strong permissive semantic component
- relationship between Type 1 and Type 2.1:

- (7) *Mary drowns a spider* → *Mary makes/lets a spider drown*

3. Hypotheses and expectations

Typological view on English and German:

English	German
SVO	SVO, case marking, V2
subject-first	topic-first
lexical causatives	lexical causatives
satellite-framed	satellite-framed

Animate-first principle: frequency universal, strong typological principle (Song 2003)

→ presence/absence of a causer/causee in a transitive causative situation: biased by primacy of causer

Hypothesis 1: causers are primarily supplied by L2 learners in a sentence complementation experiment

Hypothesis 2: causer neglect expected under assumption that inchoative situations in which a non-animate subject is involved in a spontaneous action belong to cognitive standard situations (cf. zero-subject languages)

3.1. Conceptualization bias

Important grammatical difference: heterogeneous structure of German inchoative, cf.

(8) *John stops the train* → *The train stops*

(8') *Hans stoppt den Zug* → *Der Zug stoppt*

→ English - German 1:1 mapping

(9) *John moved the stone* → *The stone moved*

(9') *Hans bewegte den Stein* → **Der Stein bewegte*

→ (9') only acceptable as reflexive, *Der Stein bewegte sich*
The stone moved itself

→ grammatical difference: causatives of the *move*-type are only pseudoinchoatives in German

• co-referenced reflexive PRO in verb-internal position

→ conceptual difference: causee is its own causer

3.2. Case-marking bias

Causer: agentive, +/-intentional

Causee: consumer of the verbal action (most lexical causatives) or "causative pivot" (Langacker 2002)

Action chain: conflated, "single-clause expressions with more than the usual number of ...participants" (ibid)

→ exhausts frame of complementation within one clause

(11) *Bill drowns* → *John drowns Bill*

[B =>[A →]]	to	[A →]
<i>John drowns Bill</i>		<i>Bill drowns</i>

A is causative pivot, takes ACC or ABS, O-role
B is action-chain head, S-role

ACC: A undergoes direct, coercive causation

DAT: A indirect, noncoercive causation, is attributed some agentivity

3.2. Case-marking bias

Case marking: triggers hierarchy of more coercive vs. less coercive causation

cf. causative make and especially catenative help

(12) *John makes Bill sing*

(12') *John helps Bill sing* takes DAT in German:

(12'') *Hans hilft Wilhelm singen*

• explicit case marking in German: can bias learners' choice

English: enables process focus (Slobin 1997)

German: rich in particle verbs, enforces resultativity

• often the preferred lexicalization for inchoatives, cf.

(16) ?*Das Glas bricht* → *Das Glas zerbricht*
The glass breaks → The glass breaks apart

3.3. Motion event bias

English/ German: manner-languages (Talmy 1985)

• explicit manner: these causatives form awkward transitives that stretch the inchoative-to-causative alternation, cf.

(13) *John moved the vase* → *The vase slid (across the table)*

(13') ?*John slid the vase*

Manner: does not cross the conceptual boundary between causer and causee.

• no explicit manner: cause takes over function of manner or cause becomes ungrammatical:

(14) *John slowed the train* → *The train grinded*

but (14') **John grinded the train*

• manner presupposes intentionality

• caused motion: typically very specific

• spontaneous/inchoative motion: typically undistinguished, generic

3.4. Unaccusativity bias

Causative psych-verbs: reduced salience of causation (Iwata 1995)

(15) **The movie's amusement of the children*

• *ed-* adjectives derived from psych-verbs

(16) *The speech annoyed the audience*

→ (16') *The annoyed audience* vs. **The annoyed speech*

• *able-* adjectives predicated from subject

(17) *Mary is annoying John*

→ (17') *He is so annoying* vs. **She is so annoying*

• ungrammatical agents as *-er* nominals derived from object

(18) *John amused the audience*

→ (18') *John is an amuser* vs. **The audience is an amuser*

4. Data and discussion: Methodology

Questionnaire continuation task and translation task

- subjects: German adult learners of English
- target: identification of the causative situation
- Role assignment: triggered by different parameters

Expected outcome:

- variables to be obtained: total number of causer or causee supplied in incomplete sentences

The closet's moving (causer missing) vs.

John's moving (causee missing)

- causer/causee attribution: measured in occurrences of supplied arguments (cf. table 1)
- causative and the inchoative situation: presented in pairs
- causer and causee: missing from sample sentences in equal numbers

4.1. Data and discussion: Animacy

	causer supplied	causee supplied	no suppletion
total / %	82 / 12.6	99 / 15.3	468 / 72.1
+ANIM relative, %	82.9	5.1	
-ANIM relative, %	17.1	94.9	
total	100	100	

Table 1: Continuation task total results with n=49 (subjects)

Animacy: strongest cue for causer assignment

- learners supply causer or causee arguments or neither
- no-suppletion: learners opted for a reflexive reading or reinterpreted the lexical item, e.g.
John's breaking... to *John's breaking up with Lucy was terrible*
- supplied causers: significantly animate (83%)
- supplied causes: mostly non-animate

4.2. Data and discussion: Manner marking

	causer supplied	causee supplied	no suppletion
total / %	155 / 42.5	43 / 11.8	167 / 45.7
+ANIM relative, %	93.5	4.7	
-ANIM relative, %	6.5	95.3	
total	100	100	

Table 2: Continuation task with motion event causatives

Caused motion: secondary cue

Caused motion supplied with causer rather than causee

- causers are overwhelmingly animate (93.5%)
- less "no-suppletion" than average (45.7% vs. 72.1%)

4.3. Data and discussion: Reflexives

	no suppletion	reflexive reading	other
total / %		31 / 6.7	437 / 93.3

Table 2: Omitted causer/causee results, Σ=468

neither causer nor causee supplied:

- fewer learners than expected supply reflexive inchoative
- due to the perceived grammaticality of many English forms without reflexive where German reflexive is obligatory

4.4. Data and discussion: Rules

- neither causer nor causee supplied: fewer learners than expected opted for the reflexive inchoative

Inchoative: temporal onset is present, therefore:

Causatives: (19) CAUSE [x, BEGIN [BECOME [V_{caus} y]]]
= become y (but was not y before)

(19') *The architects develop the city*

Inchoatives: (20) [x BECOME [x BE AT A/A+er]] =
become developed or more developed

(20') *The city developed*

German verbs of the *move*-type do not follow this formula

Pseudo-inchoatives:

(21) CAUSE [x, BEGIN [BECOME [V_{caus} x]]] as in

(21') *Die Stadt entwickelte sich*
The city developed itself

5. Conclusion

L2 learner's assignment of causer/causee roles in ambiguous causatives depends on

External triggers:

1) animacy of causer and causee

- data trends point towards a salience of the causee
- rejects hypothesis 1 in favor of hypothesis 2

Most spontaneous/inchoative verbal events are conceptualized as cognitive standard situations in which a causer is the default assumption, unmarked and/or phonetically zero

- ties in with Croft's observation of causer avoidance (common agent suppression, Croft 2001) in English passive
- 2) lexicalized manner in motion verbs
- caused motion is supplied with animate causers

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