Wearing causation on its sleeve:
Overt CAUSE in child French causatives

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Introduction

Apparently superfluous CAUSE in child language

- Children sometimes produce a superfluous causative morpheme or causative verb when expressing the meaning of a lexical verb

Turkish (Aksu-Koç and Slobin, 1985: 848)

(1) Ben kes   -ti   -m
     I   cut$_{TR}$ PAST 1SG

   Adult Turkish: 'I cut (it).'

(2) Ben kes   -tir   -di   -m
     I   cut$_{TR}$ CAUSE PAST 1SG

   Child Turkish (2;3): 'I cut (it).'
   Adult Turkish: 'I had [someone] cut it.'

Apparently superfluous CAUSE in child language

- Children sometimes produce a superfluous causative morpheme or causative verb when expressing the meaning of a lexical verb

French (Bezinska et al., 2008: 1716-1717)

(3) Il a montré*TR* le village.
he SHOW.PAST.3SG the village

Adult French: 'He showed the village.'

(4) Il a fait montrer*TR* le village.
he CAUSE.PAST.3SG show the village

Child French: 'He showed the village.'
Adult French: 'He had [someone] show the village.'

Apparently superfluous CAUSE in child language

- Even in comprehension, children have been shown to interpret the causative morpheme as semantically superfluous

Japanese (Yamakoshi et al., 2018)

Story: The monkey and the sheep took a walk and found a box. Sheep can't open the box, Monkey does it.

(5) Osarusan-ga hako-o ak-e-sase-ta-yo.
     Monkey-NOM box-ACC open-TRANS-CAUSE-PAST-PRT

   Child Japanese (60%, 4-6 y.o.s): 'The monkey opened the box.'
   Adult Japanese: 'The monkey had [someone] open the box.'

Apparently superfluous CAUSE in child language

Research questions

1. Is superfluous CAUSE a systematic error in child language?
   - What is its distribution? Is it equally likely to occur with all verb types?
   - Does it represent a class of systematic "co-mission" error (misapplication of a rule or generalization)?
2. How can we account for children's use of superfluous CAUSE during acquisition?
   - Is it a type of causative alternation error, like *The truck fixed*?
   - Does it belong to some other class of error?

A more general pattern:
Recursive vs. concord interpretations

Exponents	Meaning in standard adult lg. *recursive*	Meaning in child lg. *concord*	Example
Causation *faire montrer* 'make show'	CAUSE(CAUSE)	CAUSE	French, Japanese Turkish
Negation *not…nothing*	NEG(NEG)	NEG	English Thornton et al. (2016) Blanchette (2013)
Comparative *more better* *plus mieux*	COMP(COMP)	COMP	English, French Alexiadou et al. (2021)
Tense *avait mangé* 'had eaten'	PAST(PAST)	PAST	French Labelle (1994)

A more general pattern:
Recursive vs. concord interpretations

The same way children tend to prefer **negative concord** interpretations in (7)...

(6) The girl who skipped did**n't** buy **nothing**.   Thornton et al. (2016)

    a.   The girl who skipped bought something.   (standard adult English)

    b.   NEG(NEG(P))

    c.   The girl who skipped bought nothing.   (child English)

    d.   NEG(P)

... they tend to prefer what we propose to call **causative concord** interpretations in (8):

(7) Pierre a **fait** **montrer** le village *'Peter made show the village'*

    a.   Pierre made someone show the village.   (standard adult French)

    b.   CAUSE(CAUSE(P))

    c.   Pierre showed the village.   (child French)

    d.   CAUSE(P)

Meaning First Approach
(Alexiadou, Guasti and Sauerland 2021)

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Compression in adult language

- **Meaning first**: conceptual structures are generated first, via a language independent process.
- **Compression**: much of the conceptual structures is not pronounced in adult language: **several concepts are regularly 'compressed' into a single lexical item**.

Undercompression in child language

- Children are biased towards a one-to-one correspondence between concepts and exponents.
- See also van Hout (2008: 1754) *Form-to-Meaning Correspondence Hypothesis*: One-to-one correspondences between form and meaning are acquired earlier than one-to-many relations.
- **Superfluous errors in child language are commissive realizations of some complex conceptual structure that is 'compressed' in adult language**.

Two types of commissive mistakes

GENERATED CONCEPTS	COMPRESSED FORMS IN ADULT LG	DISTRIBUTIVE COMMISSIONS IN CHILD LG	REDUNDANT COMMISSIONS IN CHILD LG
[NOT [SOMETHING]]	*rien* 'nothing'	*pas…quelque chose* *not…something*	*pas…rien* *not…nothing*
[MORE [GOOD]]	*mieux* 'better'	*plus bon* 'more good'	*plus mieux* 'more better'
[AG[EVENT]]CAUSE[STATE[OPEN]]	*ouvrir$_{TR}$* 'open'	**faire ouvert* 'make open$_{adj}$' [not attested]*	*faire ouvrir$_{TR}$* 'make open$_{TR}$'

*Distributive commissive errors in the expression of lexical causatives arise in child English (Lord 1979, Bowerman 1974, Marcotte 2005), but not in child French (L1 learners of French do not produce ungrammatical resultative structures such as *faire ouvert 'make open')

(8)   I made back wet.   (Christy, 2;6, Bowerman 1974)

Hypothesis: Superfluous CAUSE overtly overtly realizes concepts compressed in the embedded verb

Hypothesis: Children producing superfluous CAUSE

- have acquired a target-like lexical causative
- but use *faire* as a way to transparently flag the CAUSING event 'hidden' in the compressed (and opaque) form.

Predictions

Prediction 1: Commissive CAUSE is expected only when the embedded verb is causative (i.e. compresses a CAUSE concept)

(9) Il   a fait   manger*TRANS.* la   pomme.
     he CAUSE.PAST eat   the apple

    Child French (expected): 'He made [someone] eat the apple.'
    NOT: 'He ate the apple.'

(10) Il   a fait   pleurer*INTR.*.
      he CAUSE.PAST cry

    Child French (expected): 'He made [someone] cry.'
    NOT: 'He cried.'

Predictions

Prediction 2: Commissive CAUSE should not occur when the
embedded Causee is overt

- Different participants indicates that the child distinguishes the
  matrix event and the embedded event

(11) elle le   [=lui]   fait   faire pipi
     she him.ACC him.DAT makes make peepee

'She made him make peepee.'   (CAR, 4;06, Palasis 2009)

French CHILDES corpus study

Method

Data collection

- We collected all *faire* + infinitive verb (*faire*+INF) occurrences and their conversational contexts in 10 French CHILDES corpora
- *N*=419 occurrences from 83 typically-developing children ages 1;7 to 6;11

Corpus	Children	*faire*+INF
Goad-Rose	2	9
Leveillé	1	60
Lyon	5	62
MTLN	41	67
Palasis-1	11	21
Palasis-2	13	31
Paris	5	95
Pauline	1	2
Yamaguchi	1	22
York	3	50

Method

Data annotation

1. Verb Type of INF verb
   - **AC**: Anticausative (e.g. *s'envoler* 'fly away')
   - **C-TRANS**: Causative transitive (e.g. *montrer* 'show')
   - **NC-TRANS**: Non-causative transitive (e.g. *lire* 'read')
   - **UNACC**: Unaccusative (e.g. *tomber* 'fall')
   - **UNERG**: Unergative (e.g. *jouer* 'play')
2. Interpretation of *faire*
   - **COMMISSIVE**: *faire*+INF intended to describe the same event as the INF verb would on its own (e.g. ***faire fermer** les yeux* for ***fermer** les yeux* 'close the eyes'; *ça **fait rouler*** for *ça **roule*** 'it is rolling')
   - **NON-COMMISSIVE**: *faire*+INF intended to describe a different event from the INF verb would on its own
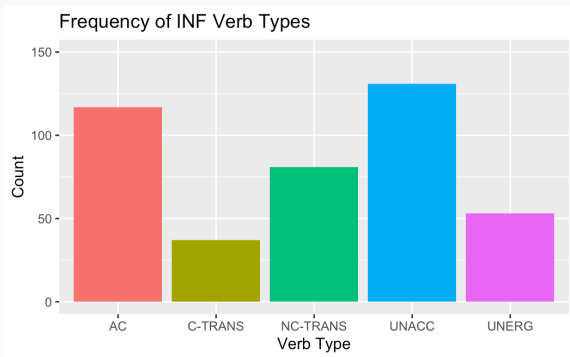   - **UNRESOLVED**: Could not determine intended meaning of *faire*+INF
3. Overtness of causee (embedded agent of INF verb)
   - **OVERT**: Causee is overtly expressed
   - **NULL**: No overtly expressed causee

Results

1. Verb Type of INF verb

	N	%
AC	117	28%
C-TRANS	37	9%
NC-TRANS	81	19%
UNACC	131	31%
UNERG	53	13%

Frequency of INF Verb Types

Results

2. Interpretation of *faire*

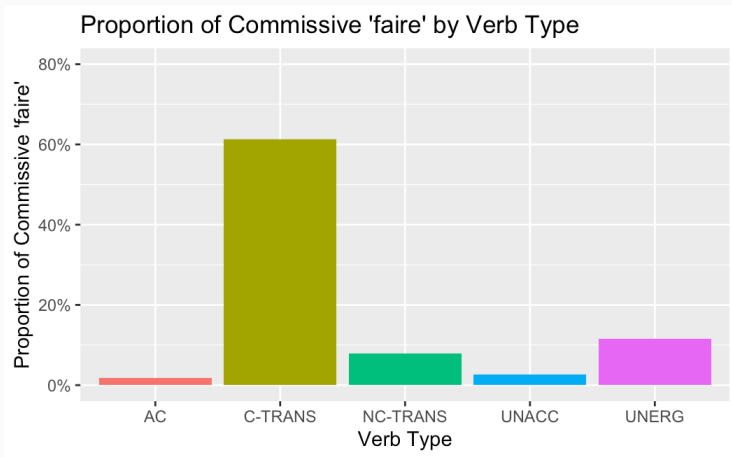|	*N*	*%*
COMMISSIVE	35	8%
NON-COMMISSIVE	335	80%
UNRESOLVED	49	12%

Interpretation of *faire* (excluding Unresolved) by INF Verb Type

	COMMISSIVE		NON-COMMISSIVE		Total
	N	*%*	*N*	*%*	*N*
AC	2	2%	105	98%	107
C-TRANS	19	61%	12	39%	31
NC-TRANS	6	8%	70	92%	76
UNACC	3	3%	109	97%	112
UNERG	5	11%	39	89%	44

Results

- Interpretation of *faire* by INF Verb Type

Proportion of Commissive 'faire' by Verb Type

Results

Commissive examples

(12) Anticausative
comme ça ça fait rouler
like   that that CAUSE roll

'Like that, it rolls'   (Theotime, 2;5, Lyon)

(13) Causative
tu   peux me faire   montrer ?
you can me CAUSE   show

'Can you show it to me?'   (Vanessa, 3;9, MTLN)

(14) Non-causative transitive
peux plus faire manger
can more CAUSE eat

'Can eat more'   (Clara, 2;7, Goad-Rose)

Results

Commissive examples

(15)   Unaccusative
je **fais**   aller à la   maison .
I   CAUSE   go   to the house

'I go to the house'   (Medhi_2, 4;0, MTLN)

(16)   Unergative
pousse ! pousse ! on   **fait**   pousser
push   push   one   CAUSE   push

'Push! Push! We push!'   (Antoine, 2;6, Paris)

Results

- C-TRANS verbs are overwhelmingly more likely to occur with commissive *faire* than any other verb type
- Binomial GLM in R:

	Estimate	Std. Error	z value	Pr(>|z|)	Signif.
Intercept: AC	-3.9608	0.7137	-5.549	2.87e-08	
Type: C-TRANS	4.4203	0.8034	5.502	3.75e-08	***
Type: NC-TRANS	1.5041	0.8309	1.810	0.0703	.
Type: UNACC	0.3589	0.9230	0.389	0.6973	
Type: UNERG	1.9327	0.8578	2.253	0.0242	*

- **Prediction 1 confirmed**: Commissive CAUSE occurs predominantly when the embedded verb is causative

Results

Superfluous CAUSE is not a type of causative alternation error

- Children producing superfluous CAUSE **do not** use the embedded lexical causative as an inchoative in non-embedded contexts (i.e., **Le village a montré* 'The village showed')
- Children producing superfluous CAUSE have already acquired the target lexical causative

(17) (a)près on   va   le **cacher** (…) on   va   le **cacher** (…) va   le **faire** **cacher**
      then   one will it hide   one will it hide   will it make hide

'Then we'll hide it (…) we'll hide it (…) we'll make hide it.'

(Madeleine, 2;02, Paris)

Results

3. Overtness of causee

	N	%
OVERT	242	59%
NULL	167	41%

Interpretation of *faire* (excl. Unresolved) by Overtness of causee

	COMMISSIVE		NON-COMMISSIVE		Total
	N	%	N	%	N
OVERT	1	0%	231	100%	234
NULL	32	24%	104	76%	136

- **Prediction 2 confirmed**: Commissive CAUSE does not occur when the embedded Causee is overt

Results

- 10% of *faire*+INF occurrences are commissive up to age 4;6
- Commissive *faire* drops off from age 5;0

Proportion of Commissive 'faire' over time

Discussion
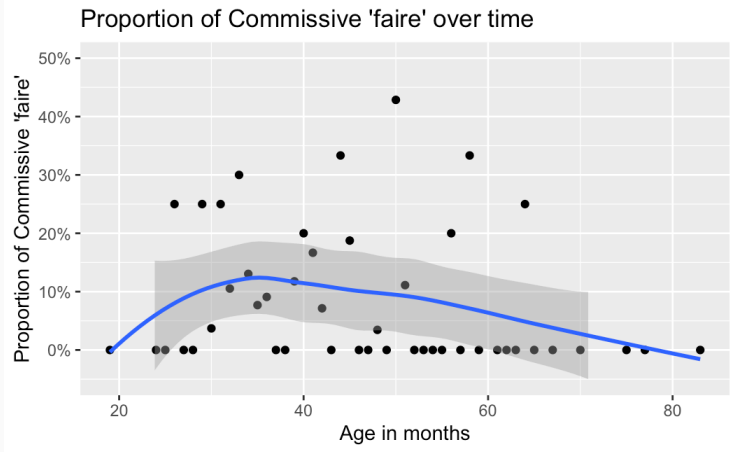
Research questions

1. Is superfluous CAUSE a systematic error in child language?

- 10% of *faire*+INF occurrences are commissive up to age 4;6 in French CHILDES
- 61% of *faire*+C-TRANS occurrences are commissive
- Indirect evidence that children make a distinction between lexical causatives and other verb types
- Commissive CAUSE thus appears to be a genuine "co-mission" error, indicating that children are not always conservative learners (contra e.g. Berwick 1985, Maratsos 1998, Snyder 2011) and go beyond the input in a constrained way

Discussion

Research questions

2. How can we account for children's use of superfluous CAUSE during acquisition?

- These results support an approach to commissive causative productions as an overt realization of the CAUSE concept compressed in the lexical causative verb
- Commissive errors in child language in general are overt realizations of a complex conceptual structure compressed in adult language (Alexiadou et al. 2021)

Remaining questions

- Is children's pattern of concord interpretations (in the causative domain and others) related to a difficulty with recursion?
- What are the respective developmental trajectories of periphrastic and lexical causatives?
- How should the concord relation posited between the two exponents expressing the same concept be modelled? (Alexiadou et al. 2021)
- To what extent does causative concord also exist in adult language?

Planned future studies

1. Causative production study in French and Italian
   - Do children use commissive 'make' with causative verbs more often than with non-causative transitive verbs in an elicited production task?
2. Causative comprehension study in French and Italian
   - Do children interpret periphrastic *faire*/*fare* causatives as lexical causatives?

Causative concord in non-canonical adult French

Undercompression of CAUSE seems to arise in some dialects and/or some contexts in **adult language** too (as it seems to do for negation in unsupervised, relaxed context)

(18) a. Après avoir grandie [sic] dans une ferme, elle se destine à la compétition chevaline mais une blessure va lui **faire montrer** un tout autre chemin, celui d'Hollywood
'After growing in a farm, she intended to do horse competition but an injury will [lit.] **make show** her a totally different path, namely Hollywood.' (corpus frTenTen17 via Sketchengine).

b. Ah mais tu m'a [sic] **fait donner** une idée tournoi des plus belles femmes et tu fais des votes.
'Oh but you [lit.] **made give** me an idea: tournament of the most beautiful women and you make votes' (Twitter)
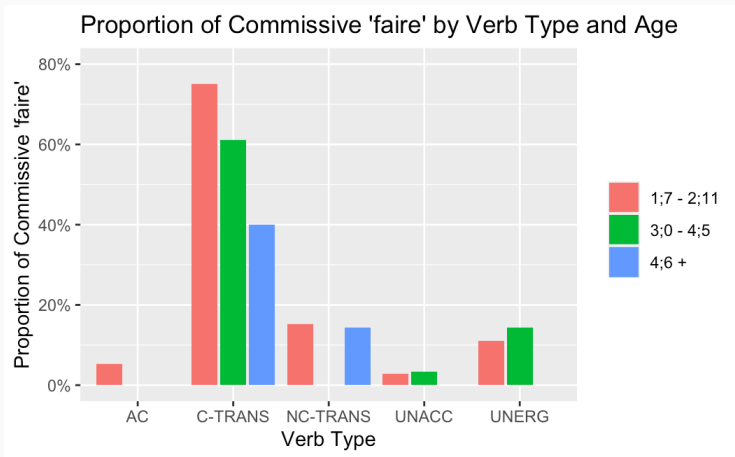
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More results

- Commissive *faire* across Age groups, by INF Verb Type

Proportion of Commissive 'faire' by Verb Type and Age

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