

The context of transmission matters in the creation and evolution of language

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What evolves?

How?

**Which contexts
promote which
types of
changes?**



People factors

deaf or hearing
primary language
age
number/proportion in
community

Context factors

language model
peer contact
linguistic community
network structure
interaction patterns

People factors

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Context factors

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Language model

-vertical

**Peer contact
-horizontal**



+horizontal



+vertical



Plan / Preview

1. Background: Homesign
2. Interaction is necessary to develop structure, but is not a source of structure (Homesign)

Studies: Comprehension of Homesign, Pragmatics

1. Transmission offer opportunities for change but is also not a source of structure itself (Lengua de Señas Nicaragüense, LSN)

Studies: Lexical conventionalization, Use of space

1. Conclusions
2. Back to the real world

70%

of deaf people in the world lack
access to language and education



WORLD FEDERATION OF THE DEAF

World Federation of the Deaf 2016

**Most deaf people
in the world
are homesigners**

Corpus of Nicaraguan Homesign data



Fieldwork: 1996-present, Pacific/North-central Nicaragua

Focus on adults today

4 families over 28 years

- Ages 9-18 at beginning;
now 37-46 years old

6 new homesigning adults

- Ages 24-64

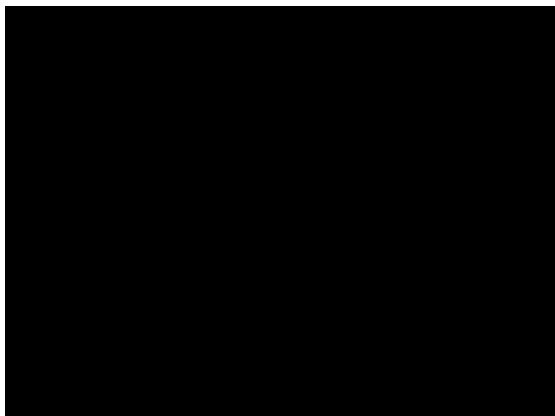
1,000+ hours of video

- Targeted elicitations
- Spontaneous & semi-spontaneous conversations





Even regular, long-term communication partners struggle to understand homesign



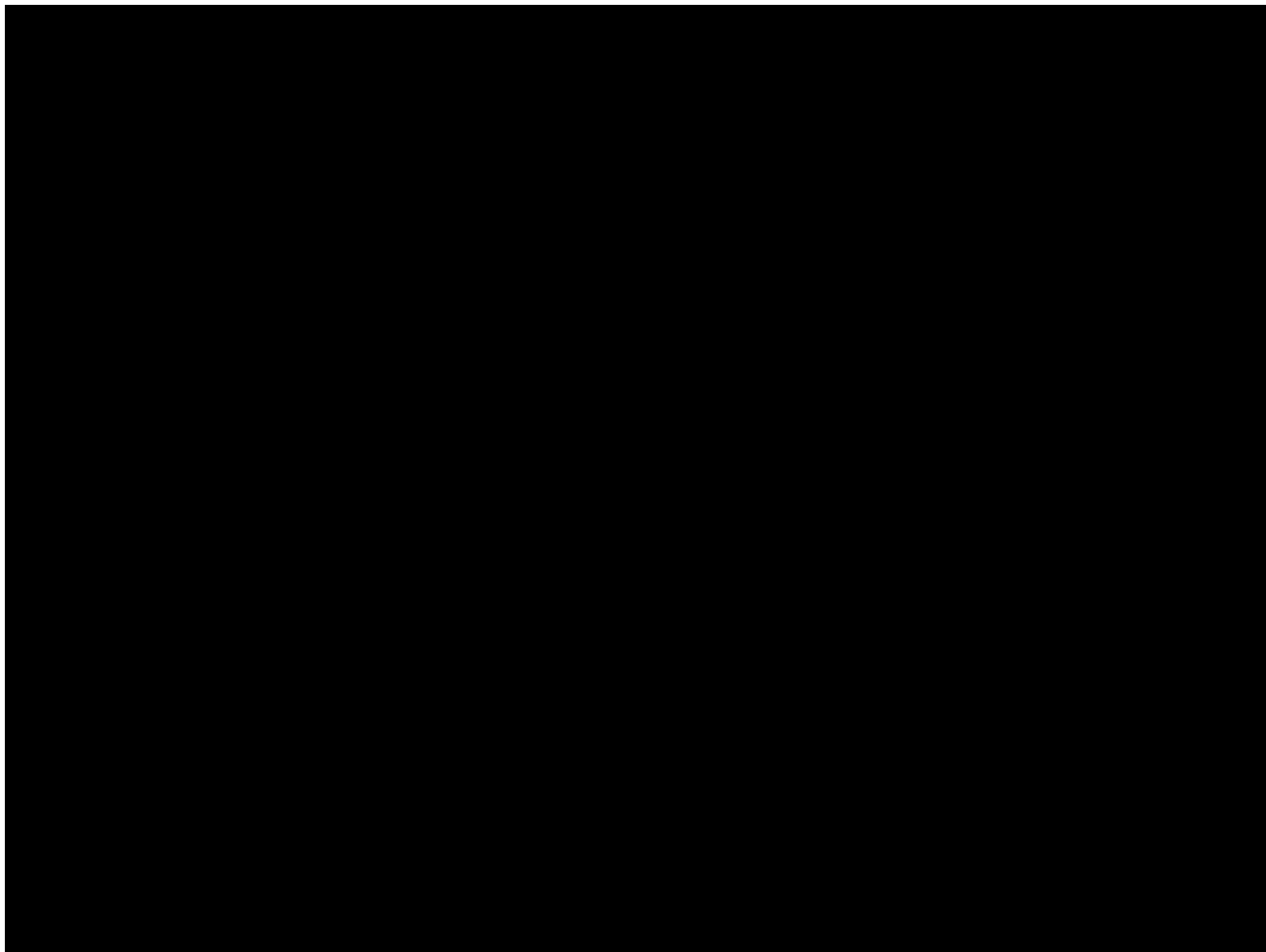
**Woman 1 tears a
tortilla, woman 2
gives woman 1 a cup**



Study:
Comprehension of Homesign

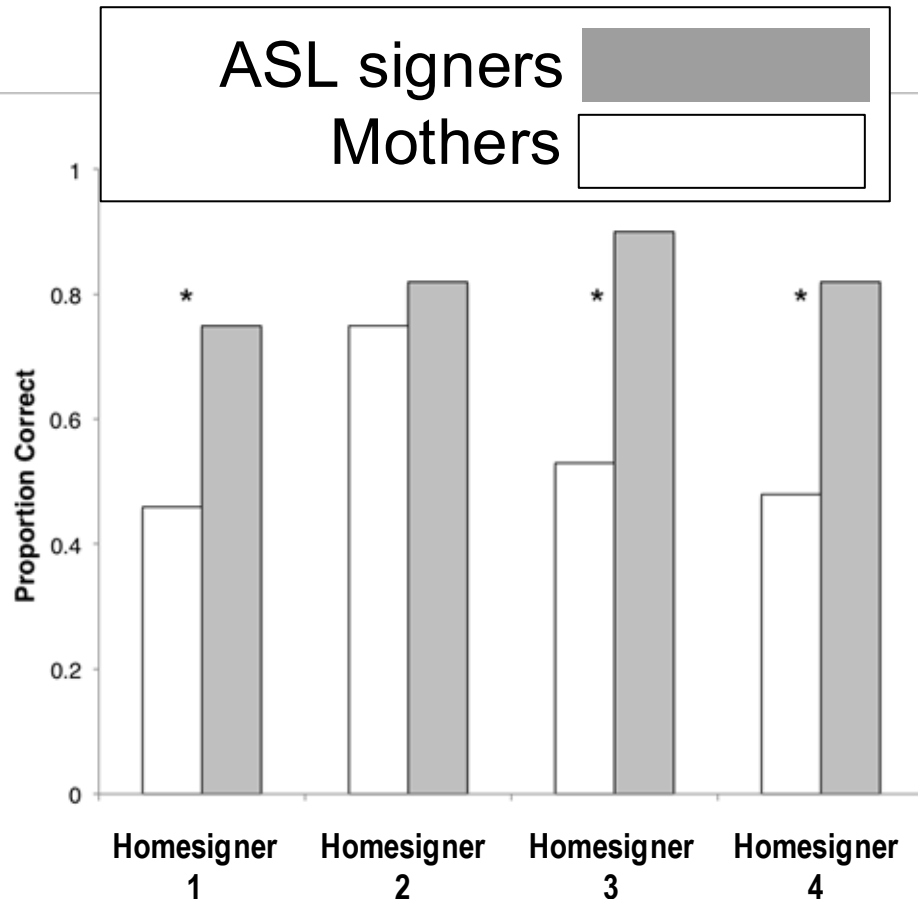


Man pushes a chair





Carrigan & Coppola (2017, Cognition)



**3 out of 4
ASL signers
understood
homesigners'
descriptions
better than
the homesigners'
mothers**

*despite mothers' 25-35 years
of communicative experience*

Interaction leads to structure

- Is this through communicative problem solving? (Tomasello 2007)
- Homesigners' utterances have structure
evidence: ASL signers differentiate utterance meanings
- However, Mothers' knowledge of homesign does not reflect that structure
evidence: mothers don't differentiate utterance meanings
- It can't be successful interactions that select for that structure
- For family members: Age of exposure to the homesign related to comprehension (younger = better)
→ but age and years of experience did not

***Interaction is necessary for
linguistic structure to emerge,
but does not create it.***

Salikoko Mufwene: “***Language contact [Communicative
interaction] is the ACTUATOR of change***”

Study: Pragmatics in Homesigners

What about Pragmatics?

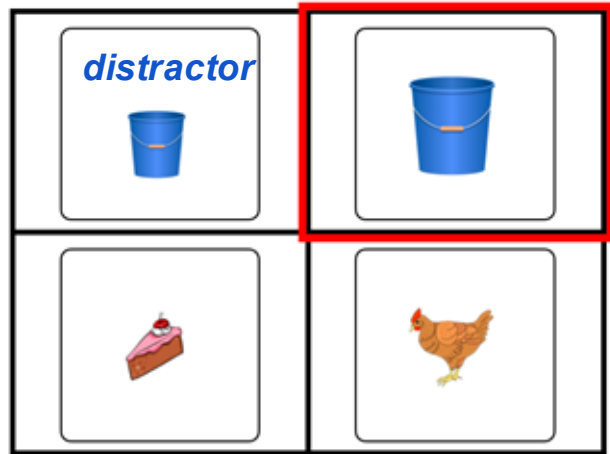
Do homesigners produce modifiers when required by the context?



Homesigner Annemarie Kocab



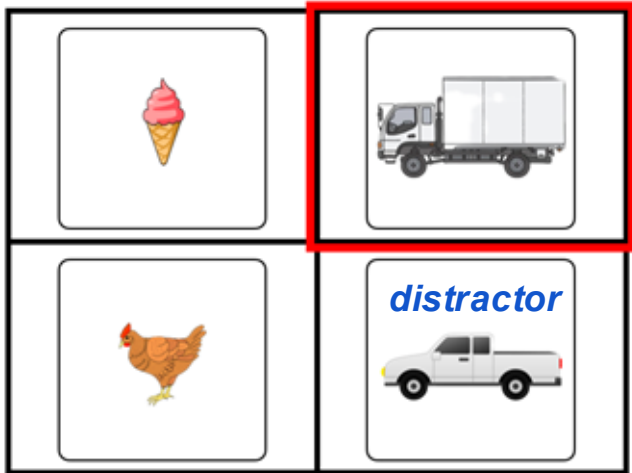
Maddie Quam Communication Partner



test trial



filler trial
no distractor

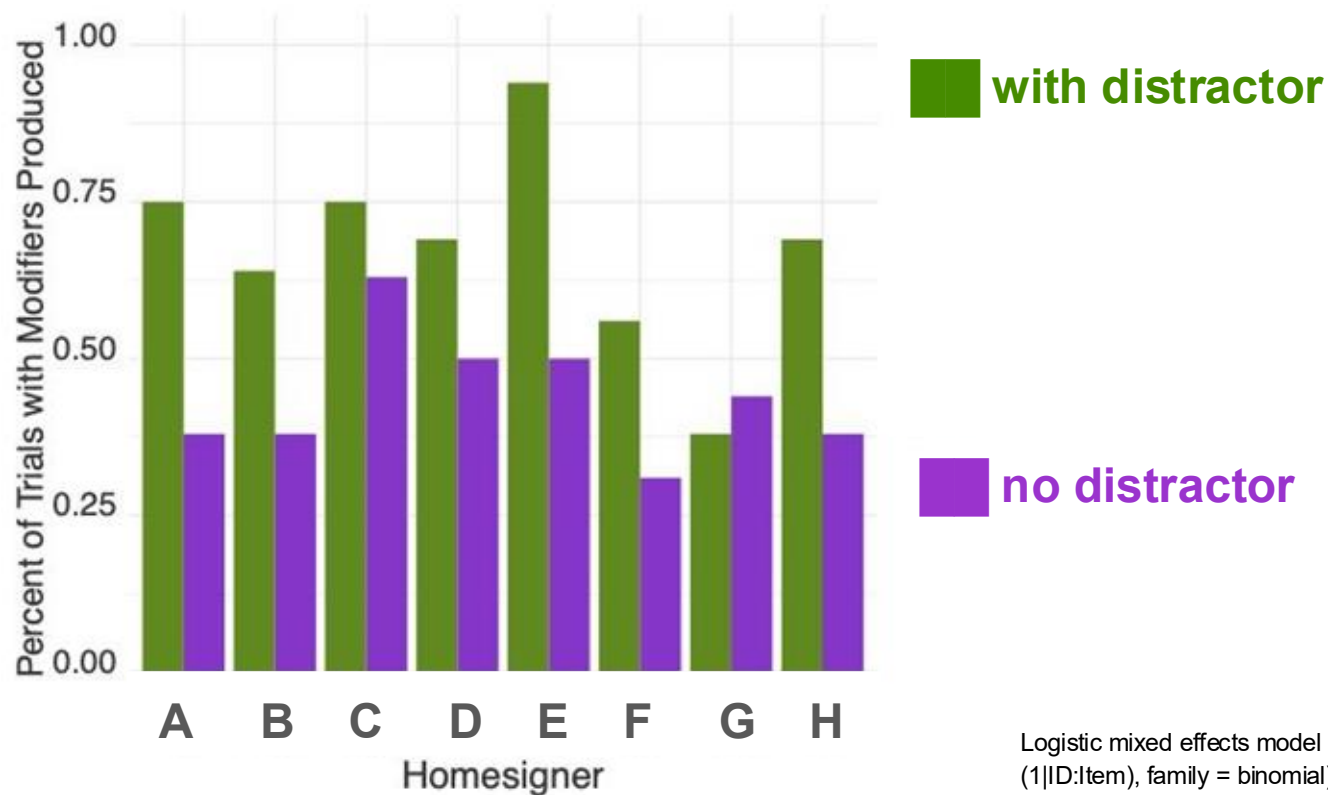


test trial



test trial

Homesigners were 2.5 times more likely to produce modifiers when necessary (trials with a distractor)



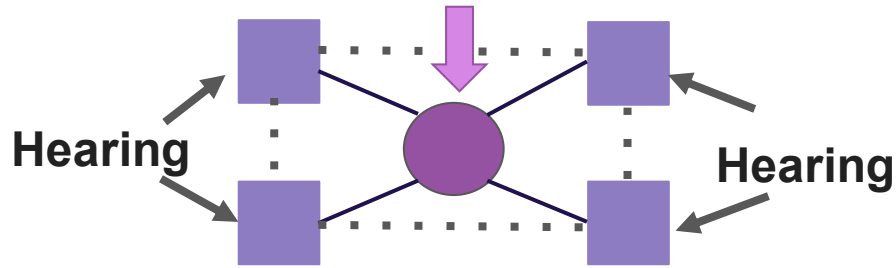
Logistic mixed effects model <-glmer(Modifier Present ~ Distractor Present + (1|ID:Item), family = binomial), (t = 3.995, p < 0.001). Age range: 22-64 years.

Interim summary: Homesign results

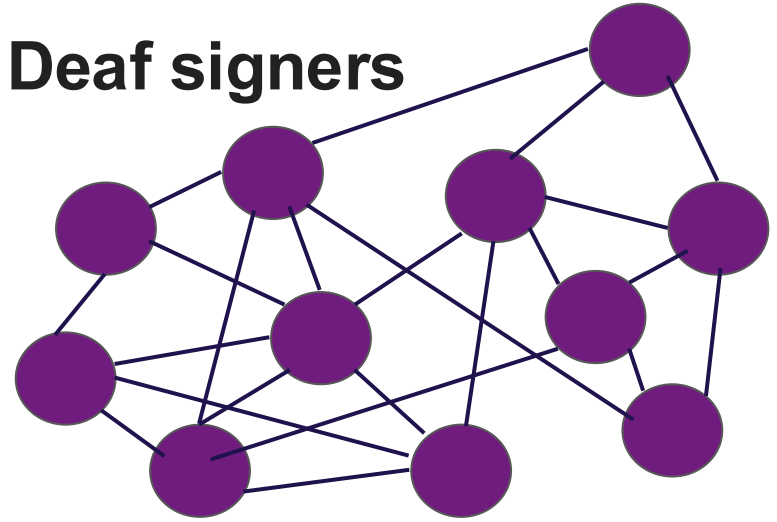
- Being the only primary user of a language is very different from having horizontal and/or vertical contact
 - Structure develops nonetheless
- Pragmatic understanding begins to emerge even in homesign (consistent with deVos & Safar 2022)
- On to more results from LSN in which the structure of the network, as well as vertical and horizontal contact vary

Study:
Lexical conventionalization

Deaf homesigner



Deaf signers



**Spoken
Spanish**

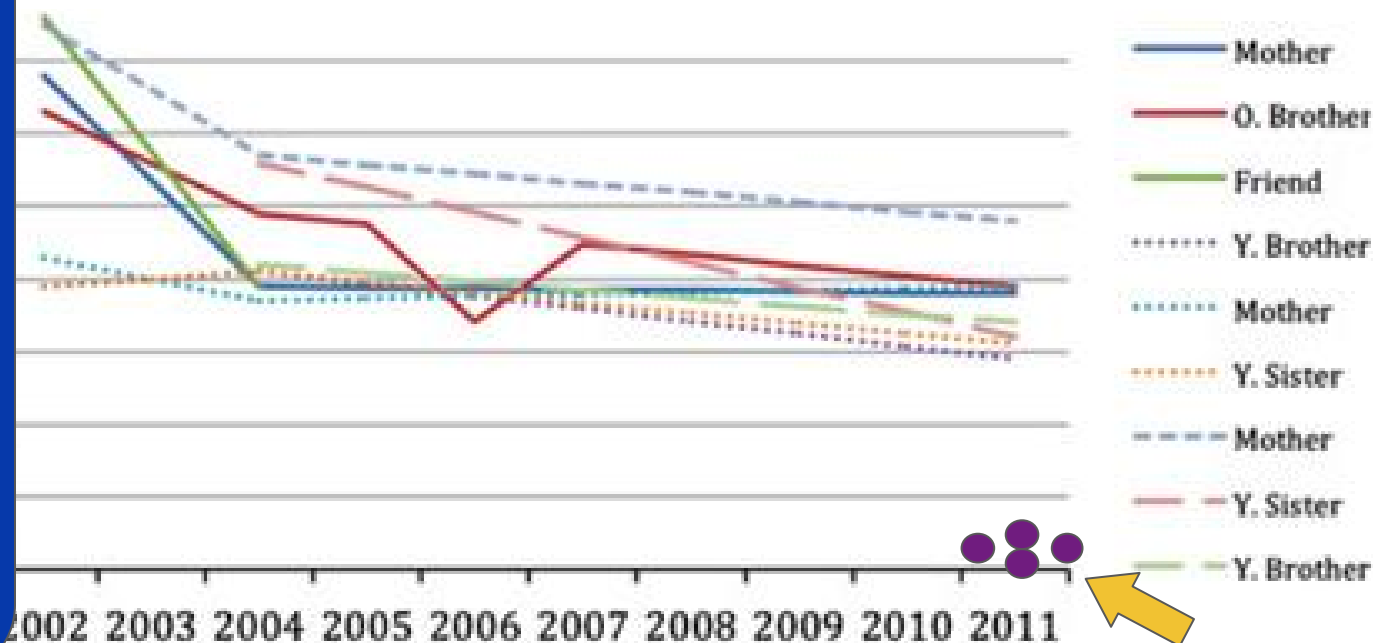
**Primary language
used by linguistic
community**

**Lengua de
Señas
Nicaragüense
(LSN)**

Designers and communication partners converge over time, but not fully

Converging findings with an **agent-based model** (Richie et al. 2014a) & **silent gesture paradigm** (Richie et al. 2020)

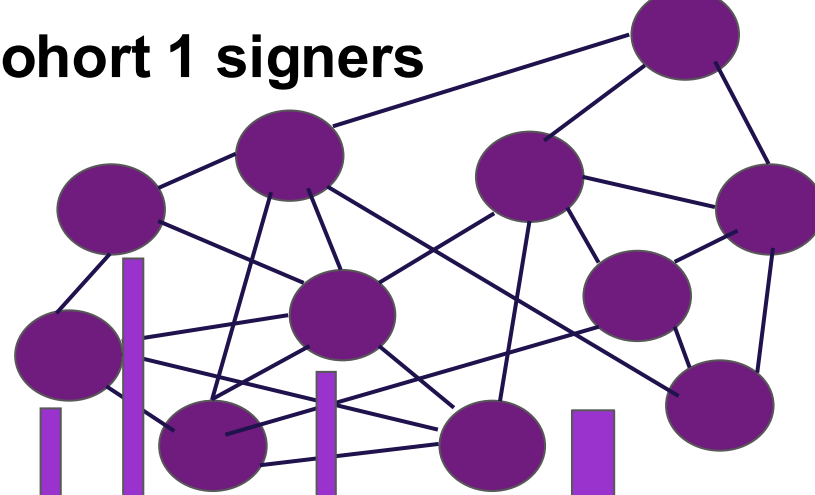
Mudd/Schouwstra:
*Shared Context
Helps Maintain
Lexical Variation*
Mudd & Schouwstra
**TODAY 10:55
Ballroom A**



**LSN Cohort 1 signers
all produce same sign**

Study: Use of space

LSN Cohort 1 signers



Hearing CODAs
Home context



Deaf Cohort 2 signers
School / community context



What do the CODAs do??

- Possibility 1: If the change is driven by the more experienced adults, might expect them to look like Cohort 1: systematic use of rotated layouts within and across individuals to mark objects
- Possibility 2: Because CODAs are only exposed to their own parent, might expect them to match their parent's productions
- Overall, CODAs preferred UNROTATED spatial layouts
- Individually, CODAs did NOT match their parents' spatial patterns

Without the horizontal, peer-to-peer interaction, we did not observe the emergence of this spatial device in the same way

Peer contact
–horizontal

+horizontal

–vertical

Transmission
as **selection**

+vertical



Peer contact as
reorganization



Conclusions

- **The interaction context matters for how learners adapt and change their input**
 - **and for degree of conventionalization**
- **Interaction and transmission provide opportunities for adaptation/change but are not the sources of adaptation/change**

How you
language is
beautiful.

DON'T LET ANYONE
TELL YOU YOUR
LANGUAGE
IS WRONG.YOUR
LANGUAGE
IS THE
STORY OF
YOUR LIFE.

-DR. JON HENNER

Henner & Robinson 2023
Crip Linguistics



“If a change is considered deleterious, it seems that it is the changing ecology, the root cause, that needs attending to, for example, fighting [oppression], rather than advising the victim population to hang on”

Salikoko Mufwene, EvoLang Plenary
2024



Equipo Sordo (“Deaf Team”) in Nicaragua





Señas y Sonrisas

A smartphone app that helps parents learn basic NSL signs to communicate with their deaf children



WHAT CAN YOU DO??

- Challenge assumptions that language is only spoken
- Remove barriers for deaf people in academia
- Raise awareness of language deprivation

**We thank the homesigners and signers in Nicaragua
and their family members and friends
for allowing us to learn from them.**



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**Emily
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**Deanna
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Thank you

Questions?



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IYKYK

