



LSA 83<sup>rd</sup> Annual Meeting

San Francisco, 2009

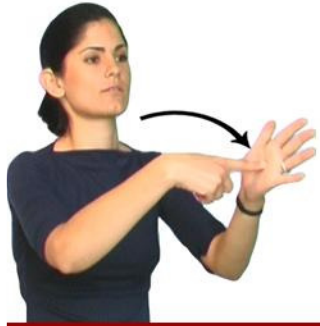
# The Evolution of Verb Classes and Verb Agreement in Sign Languages

Irit Meir, Carol Padden,  
Mark Aronoff & Wendy Sandler



## Main claim

- Sign language and spoken language verb agreement are cases of convergent evolution:
- The two mechanisms developed from different structures, but evolved to serve the same function in the language. They became more similar to each other because of the functional similarity.



# Peculiarities of sign language verb agreement

Introduction

Conflicting  
Iconicities:

Body as  
subject

Body as 1P

Diachronic  
developments:

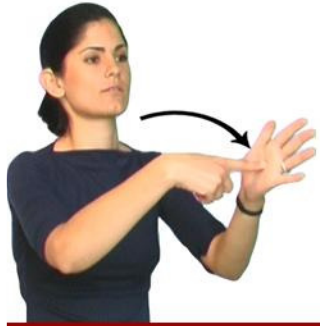
ABSL

ISL

ASL

Conclusions

- Object agreement “stronger” than subject agreement
- Restricted to one sub-class of verbs
  - ◆ Verbs of transfer (Meir 2002)
- Not obligatory



# How do agreement systems arise?

Introduction

Conflicting  
Iconicities:

Body as  
subject

Body as 1P

Diachronic  
developments:

ABSL

ISL

ASL

Conclusions

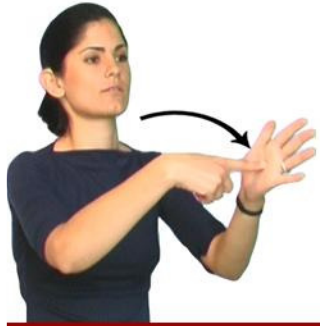
- Spoken languages:

- ◆ attachment of bound clitic pronouns to the verb  
(Givón 1976, van Geldern 2007)

“One overriding theme – and claim – of this paper is that verb agreement paradigms always arise from anaphoric pronoun paradigms.”

Tok Pisin:	Em <u>i</u> -paitim
	Him he fight-him
	‘He beat him’

(Givón 1976)



# How do agreement systems arise?

Introduction

Conflicting  
Iconicities:

Body as  
subject

Body as 1P

Diachronic  
developments:

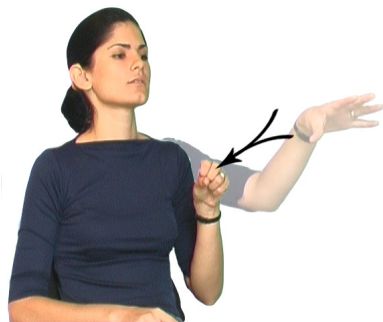
ABSL

ISL

ASL

Conclusions

- Signed languages:
  - ◆ Cliticization account fails for sign languages:
    - Has not been attested
    - Cannot explain why only verbs of transfer inflect for agreement
    - Cannot explain the existence of backwards verbs
  - ◆ Recruitment of space into grammar



# Backwards verb: TAKE

Introduction

Conflicting  
Iconicities:

Body as  
subject

Body as 1P

Diachronic  
developments:

ABSL

ISL

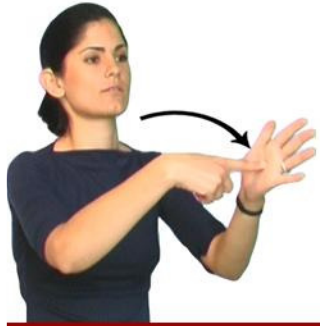
ASL

Conclusions

- Properties of backwards verbs:
  - ◆ Reverse order of agreement markers
    - Verb moves from object to subject
  - ◆ Same syntax

$I_1$ GIVE $_2$  'I gave you'  
 $I_2$ TAKE $_1$  'I took from you'

- In backwards verbs, order of agr markers does not match order of pronouns.



# Multiple iconicities

Introduction

Conflicting  
Iconicities:

Body as  
subject

Body as 1P

Diachronic  
developments:

ABSL

ISL

ASL

Conclusions

- **Verb system reflects two iconic systems**  
(Meir et al 2007):
  - ◆ **Body as subject**
  - ◆ **Body as first person**



# 'Body as Subject': Body represents an argument

Introduction

Conflicting

Iconicities:

Body as  
subject

Body as 1P

Diachronic  
developments:

ABSL

ISL

ASL

Conclusions

- When using body and space to represent an event
- Body features (location features) represent a specific argument of the event





## 'Body as Subject': examples

Introduction

Conflicting  
Iconicities:

Body as  
subject

Body as 1P

Diachronic  
developments:

ABSL

ISL

ASL

Conclusions

- **Psych verbs:** HAPPY, LOVE, SUFFER, UPSET, BE-FED-UP-WITH
  - ◆ Chest = the site of the feelings of the **experiencer** argument
- **Verbs of mental activities:** KNOW, REMEMBER, LEARN, WORRY, THINK, DREAM, UNDERSTAND
  - ◆ Temple or the forehead = the site of the mental actions of the **agent/experiencer**.
- **Verbs of perception:** SEE, LOOK, HEAR, LISTEN, SMELL
  - ◆ Eyes, ear or nose = the site of the actions of the **experiencer** (perceiver).



# 'Body as Subject': examples

Introduction

Conflicting

Iconicities:

Body as  
subject

Body as 1P

Diachronic  
developments:

ABSL

ISL

ASL

Conclusions

- **Verbs of saying:** SAY, ASK, ANSWER, EXPLAIN, SHOUT
  - ◆ Mouth = the mouth of the **agent** argument
- **Change-of-state verbs:** BLUSH, GET-WELL, WAKE-UP
  - ◆ Face, body, eyes = body parts of the **patient** argument



# 'Body as Subject'

Introduction

Conflicting  
Iconicities:

Body as  
subject

Body as 1P

Diachronic  
developments:

ABSL

ISL

ASL

Conclusions

- The body may be associated with arguments bearing different thematic roles.
- But it is always associated with the argument bearing **the highest ranking thematic role**, and the one which is predicated of –  
the **Subject**.



# Body as first person

Introduction

Conflicting

Iconicities:

Body as  
subject

Body as 1P

Diachronic  
developments:

ABSL

ISL

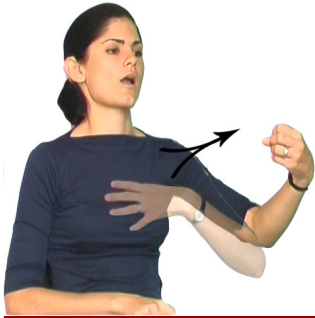
ASL

Conclusions

- In pronominal signs
- In verb agreement forms

## **POSSIBLE CONFLICT**

- Agreeing verbs encode both the event and the pronominal features of the arguments



# Conflicting iconicities

Introduction

Conflicting  
Iconicities:

Body as  
subject

Body as 1P

Diachronic  
developments:

ABSL

ISL

ASL

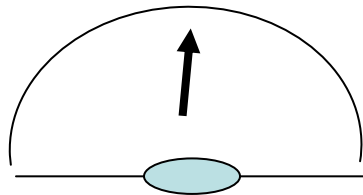
Conclusions

• ‘He-sent-me the book.’

**Body as subject:**

Body represents sender  
(subject)

Verb moves outward  
from the body

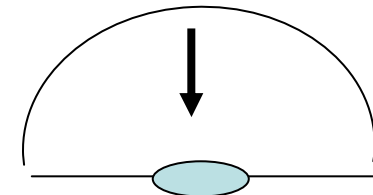


?

**Body as 1<sup>st</sup> person:**

Body represents recipient  
(object)

Verb moves inward to  
the body





# Sign language verb agreement

Introduction

Conflicting

Iconicities:

Body as  
subject

Body as 1P

Diachronic  
developments:

ABSL

ISL

ASL

Conclusions

- ◆ Body is not the subject
- ◆ Body is 1<sup>st</sup> person, not associated with a particular syntactic role
- ◆ Subject and object are encoded by direction of movement and facing



# Diachronic development

Introduction

Conflicting

Iconicities:

Body as  
subject

Body as 1P

Diachronic  
developments:

ABSL

ISL

ASL

Conclusions

- Within the verbal system
    - ◆ ‘Body as subject’ is more basic, comes first diachronically
    - ◆ ‘Body as subject’ persists in plain verbs
    - ◆ In agreeing verbs, ‘body as subject’ is present when subject agreement is dropped
    - ◆ ‘Body as 1<sup>st</sup> person’ comes later diachronically (if at all)
- (Padden et al in press)



# AL-SAYYID BEDOUIN SIGN LANGUAGE

Introduction

Conflicting

Iconicities:

Body as  
subject

Body as 1P

Diachronic  
developments:

ABSL

ISL

ASL

Conclusions

- ◆ Developed in a village community:  
about ~ 150 deaf in a village of ~3,500
- ◆ Currently in its third generation
- ◆ Widely used by both hearing and deaf  
members of the community
- ◆ Differs in vocabulary and structure  
from surrounding languages





# ABSL: Body as subject; no verb agreement

Introduction

Conflicting

Iconicities:

Body as  
subject

Body as 1P

Diachronic  
developments:

ABSL

ISL

ASL

Conclusions



Verbs of transfer are signed from the body or towards the body.

They do not make use of space.



# Israeli Sign Language

Introduction

Conflicting  
Iconicities:

Body as  
subject

Body as 1P

Diachronic  
developments:

ABSL

ISL

ASL

Conclusions

- Emerged in the 1930s, with the emergence of the Deaf community in the country
- In a contact situation
- About 10,000 members today
- First generation signers still with us

(A Language in Space: The Story of Israeli Sign Language.

Meir & Sandler 2008)



# ISL: Diachronic stages towards verb agreement

Introduction

Conflicting  
Iconicities:

Body as  
subject

Body as 1P

Diachronic  
developments:

ABSL

ISL

ASL

Conclusions

1. Body is subject
2. End-point of sign is directed towards a referent in space
  - **Reanalysis:**
  - End-point=referent (Ann Senghas, p.c.)
3. Beginning-point of sign is directed towards a referent in space
  - **Reanalysis:**
  - Beginning-point=referent

(Emergence of argument structure. Meir in press)



# ISL stage 1: Body as Subject

Introduction

Conflicting

Iconicities:

Body as  
subject

Body as 1P

Diachronic  
developments:

ABSL

ISL

ASL

Conclusions



Verbs of transfer are signed from the body or towards the body.

They do not make use of space.



# ISL stage 2: single-agreement forms

Introduction

Conflicting

Iconicities:

Body as  
subject

Body as 1P

Diachronic  
developments:

ABSL

ISL

ASL

Conclusions



Verbs of transfer are signed from the body towards a location in space.



# ISL stage 3: double-agreement forms

Introduction

Conflicting

Iconicities:

Body as  
subject

Body as 1P

Diachronic  
developments:

ABSL

ISL

ASL

Conclusions



Verbs of transfer are signed from one location in space towards another.



# 'Body as Subject' is still there...

Introduction

Conflicting  
Iconicities:

Body as  
subject

Body as 1P

Diachronic  
developments:

ABSL

ISL

ASL

Conclusions

- Single agreeing forms:
  - ◆ Initial point: Body as subject
  - ◆ End point: Encodes non-subject argument
- Non-obligatoriness of verb agreement
  - ◆ Signers can always use 'Body as subject'  $\Rightarrow$  single/non-agreeing forms





# ASL: Variations in form

Introduction

Conflicting

Iconicities:

Body as  
subject

Body as 1P

Diachronic  
developments:

ABSL

ISL

ASL

Conclusions

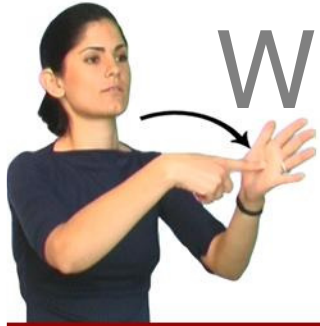


Agreeing form



Non-agreeing form





# Why is verb agreement restricted to verbs of transfer?

Introduction

Conflicting  
Iconicities:

Body as  
subject

Body as 1P

Diachronic  
developments:

ABSL

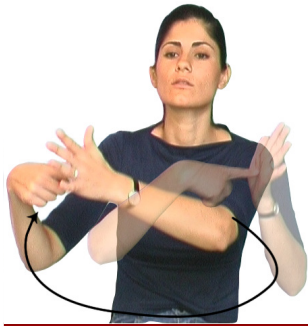
ISL

ASL

Conclusions

- The form of transfer verbs involves body and space:
  - ◆ one end has to be away from body
- When a language acquires systematic referential use of space
- Verbs of transfer lend themselves more easily to reanalysis:

Endpoints=referents



# Co-evolution of iconicity and grammar

Introduction

Conflicting  
Iconicities:

Body as  
subject

Body as 1P

Diachronic  
developments:

ABSL

ISL

ASL

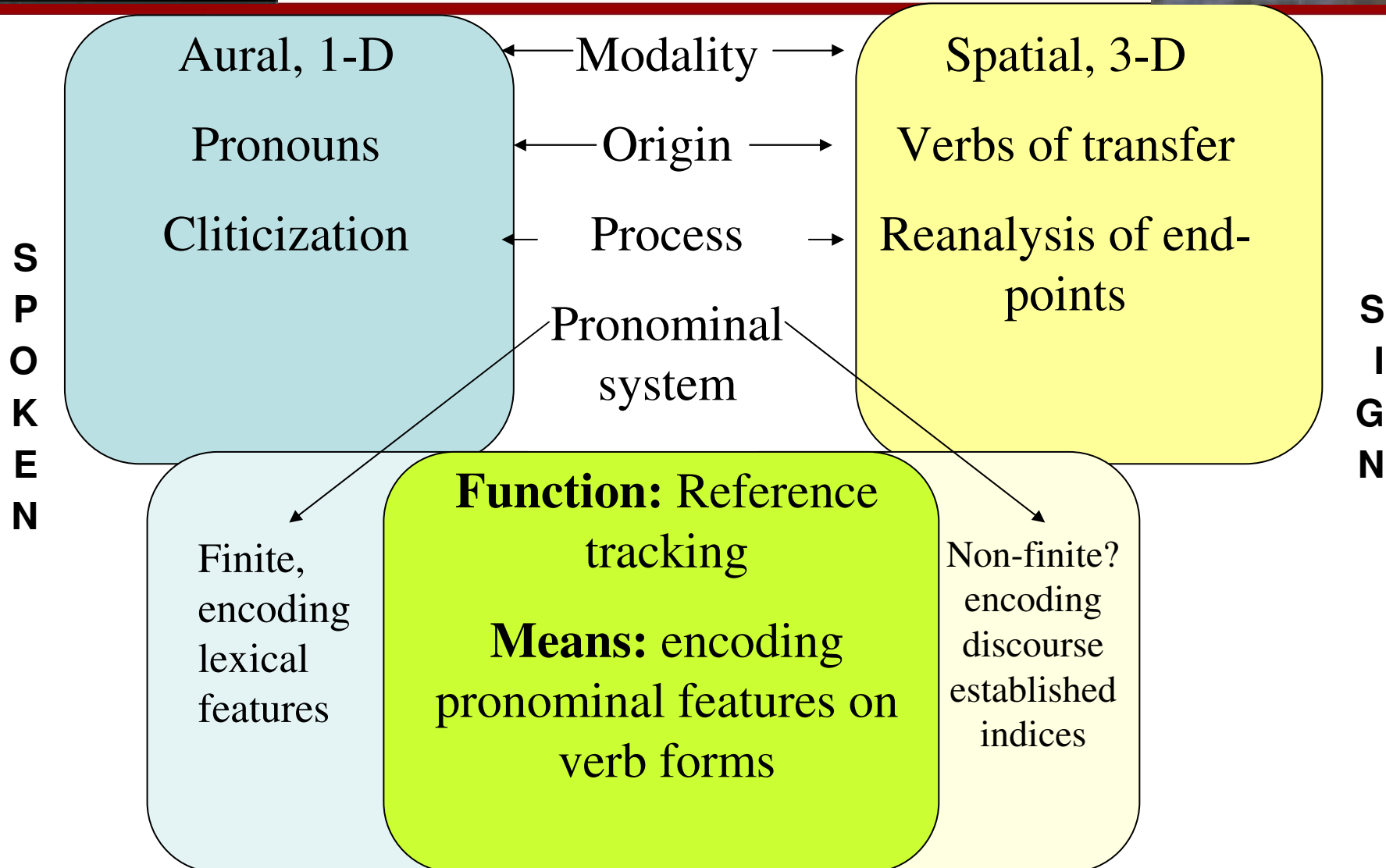
Conclusions

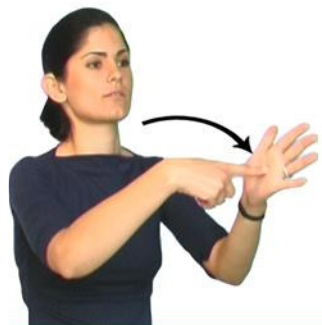
- Iconicity is not a unitary system.
- Iconic use of Body as Subject emerges very early in the life of a sign language.
- Different types of iconicity are distributed over different parts of the grammar, and these parts of grammar are assembled over time.

(Iconicity in a new sign language. Padden in press)



# Convergent structures in language evolution





Thank you

