

# SELF-FEEDING AND COMMUNICATIVE DEVELOPMENT DURING THE FIRST TWO YEARS OF LIFE: CONCURRENT AND LONGITUDINAL ASSOCIATIONS

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## INTRODUCTION

- Advances in **motor skills** (e.g., object manipulation) can have cascading effects on infants' **language learning** and **caregivers' verbal input**<sup>1</sup>
- Complementary feeding **encouraging self-feeding**, rather than spoon-feeding, seems to be **related to enhanced language development** in 8- to 24- month-olds<sup>2</sup>
- Self-feeding entails more **opportunities** to develop **fine-motor skills** and **child-directed speech**, which predict children's language development<sup>3,4,5</sup>

### We aimed to investigate:

- Concurrent relations between (i) **self-feeding** and (ii) **child-directed speech** with **gestural and vocal communication**
- Longitudinal relation between **self-feeding** and **language development**

## METHOD

N=182 infants (48% females): 12 mos ( $M=12.33$ ,  $SD=.51$ )

### Measures at 12 months of age:

- Observation of a typical meal (self-feeding and communication)
- MacArthur-Bates Communicative Development Inventory (MCDI): Words and Gestures*<sup>6</sup> (language)
- Developmental Profile 3*<sup>7</sup> (fine-motor skill)
- Socio-demographic questionnaire

N=176 infants: 18 mos ( $M=18.37$ ,  $SD=.51$ ), 24 mos ( $M=24.29$ ,  $SD=.67$ )

### Measures at 18 and 24 months of age:

- MacArthur-Bates Communicative Development Inventory (MCDI): Words and Sentences*<sup>7</sup> (language)

## MEAL OBSERVATION

### Coding scheme for infants' communicative abilities at 12 months<sup>4,8</sup>:

- 31 gestures (6 deictic, 25 referential)
- 4 types of vocal acts (simple vocal., proto-word, word, word combination)



### Variables from meal observations:

#### Dependent variables (DVs)

- Rates of infants' **deictic** and **referential gestures**
- Rates of infants' **vocalizations**

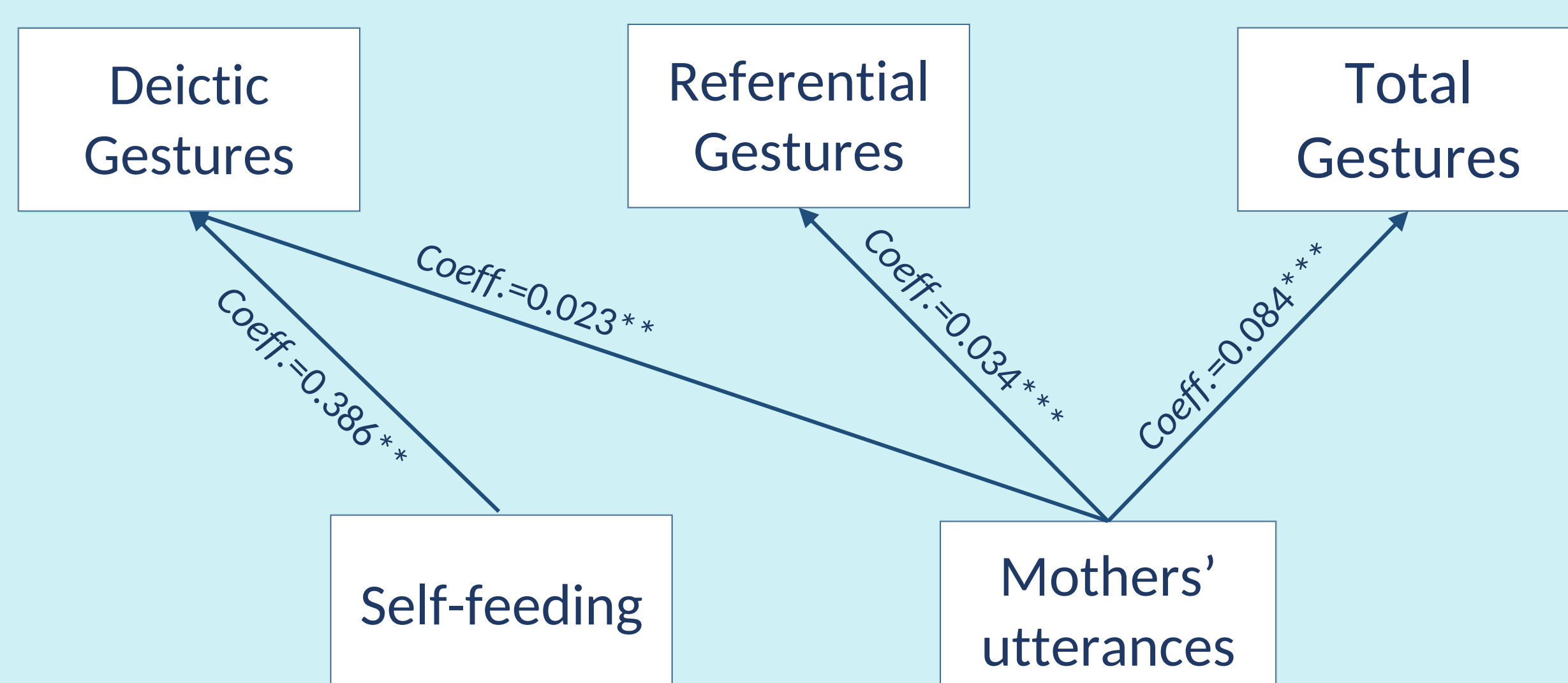
#### Independent variables (IVs):

- Rate of **mothers' child-directed utterances**
- Proportion of **self-feeding**

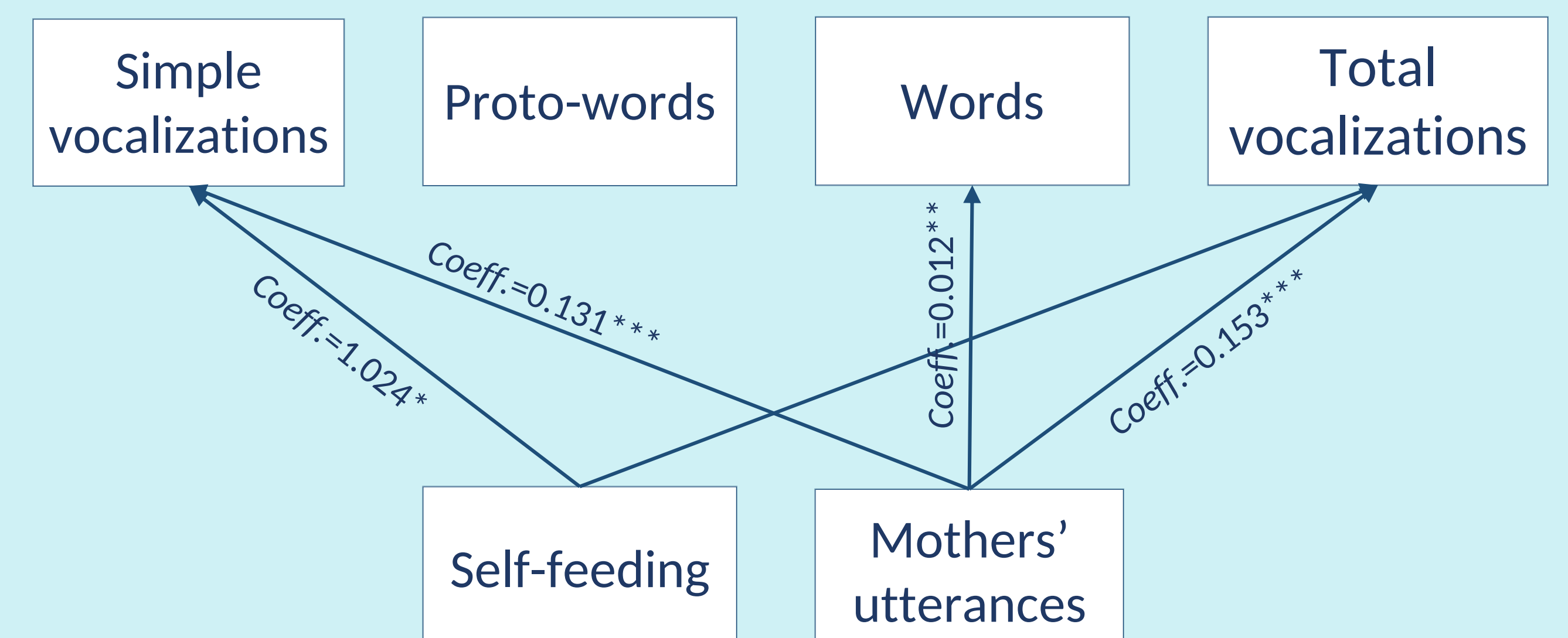


## MAIN RESULTS FROM LINEAR REGRESSION ANALYSES

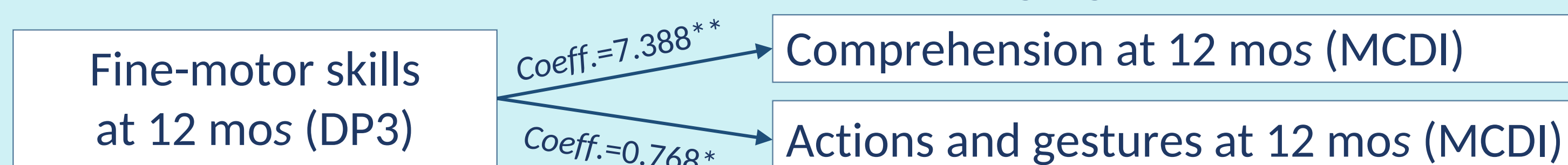
### Concurrent associations with infants' gestures as DVs



### Concurrent associations with infants' vocalizations as DVs



### Concurrent associations with parent-reported language at 12 months as DV



### Longitudinal association with parent-reported language at 24 months as DV



## DISCUSSION

- Infants who self-fed more frequently during meals exhibited **enhanced communicative skills** (self-feeding positively related to deictic gestures and simple/total vocalizations)
- This finding was further supported by **longitudinal data** (self-feeding positively linked to sentence production at 24 months), and concurrent relations between fine-motor skills and language at 12 months
- Child-directed speech** was related to infants' **communication** (maternal utterances positively associated with infants' gestures and vocal acts)

## CONCLUSIONS

- Practicing fine-motor skills** involved in self-feeding and **exposure to language** directed at infants during mealtime can significantly influence their **gestural and vocal production**
- Investigating **early feeding practices** that promote fine-motor skills and child-directed speech is **crucial for understanding infants' communicative development**
- Relevant **implications** for promoting the dissemination of infant feeding practices alternative to parent-led spoon-feeding

## References

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