



# Meaningful moments in children’s real-life interactions with caregivers: A study of English- and Spanish-speaking families from diverse SES backgrounds

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## Introduction

- Individual differences in caregivers’ early verbal engagement with their children vary as a function of SES and are related to variability in children’s later language and cognitive outcomes (Daneri et al., 2018 ; Hart & Risley, 1995).
- To better convey how caregivers can support children’s language learning, our message must move beyond ‘engage more’ to provide practical suggestions for how to create enriching interactions during **typical, everyday activities** that are appropriate for diverse families.
- The contexts in which caregiver-child interactions occur affect the quantity and quality of caregiver talk (Dunn et al. 1977; Hoff-Ginsberg, 1991; Soderstrom & Wittebolle, 2013; Tamis-LeMonda, 2018). Moreover, SES gaps in caregivers’ verbal engagement are reduced during book sharing (Dunn et al. 1977; Hoff-Ginsberg, 1991; Snow, 1976), suggesting that book sharing may be a particularly rich context for learning across a range of SES levels.

- However, everyday caregiver-child interactions occur during **many different contexts** (e.g., mealtimes, dressing). Little is known about how the quantity and quality of verbal engagement differs across contexts when observed during **real-life, spontaneous** interactions.
- Using samples of the densest talk from all-day naturalistic recordings, we characterize caregiver talk in **English- and Spanish-speaking families from diverse SES backgrounds**, asking whether talk in these contexts differentially relates to children’s long-term outcomes.

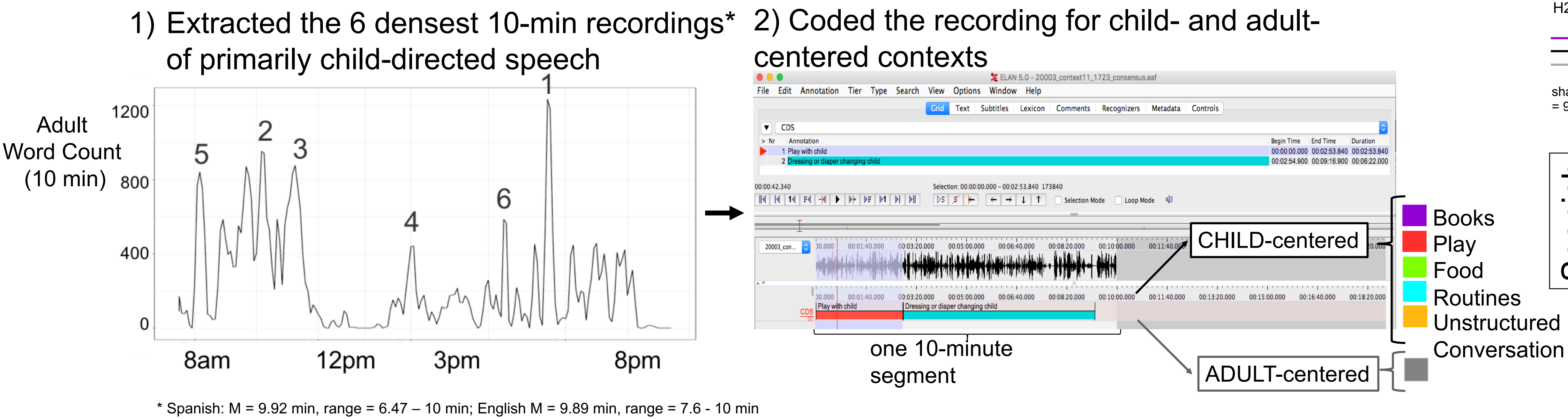
## Objectives

- Sampling the **densest hour of talk** from all-day LENA recordings, **during what everyday contexts are caregivers engaging the most** with their 2-year-old children? Does dense talk occur primarily in book sharing?
- Does the **relation between SES and features of caregiver verbal engagement vary by context?** We focus on **English-speaking families** who represent a broad spectrum of lower-higher SES backgrounds.
- Does the **relation between features of caregiver verbal engagement and children’s language outcomes vary by context?** We focus on **Spanish-speaking families** for whom we have follow-up data at 4.5 years.

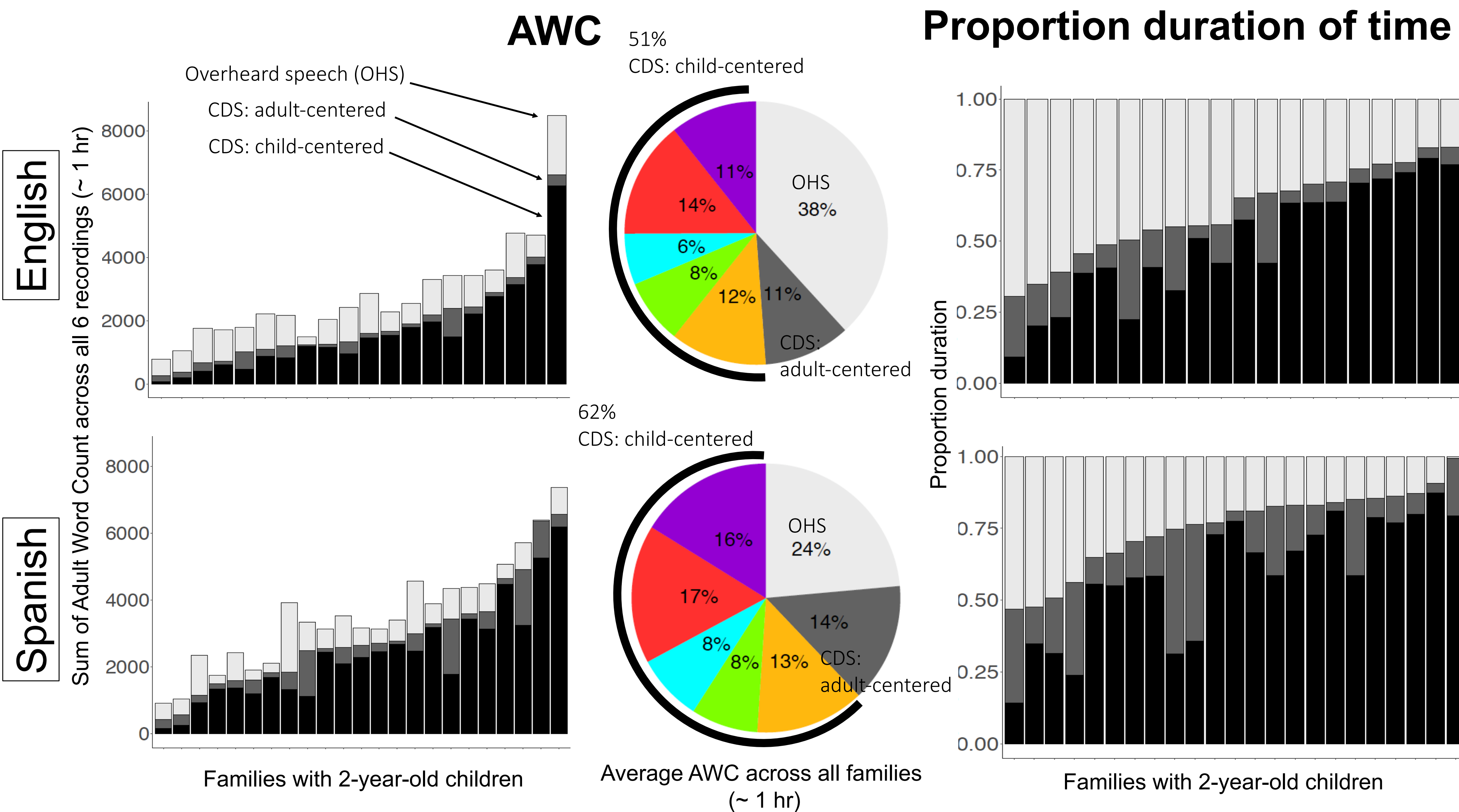
## Method

|  | English       |                | Spanish       |                |
|--|---------------|----------------|---------------|----------------|
| Measure  | M (SD)        | Range          | M (SD)        | Range          |
| Child age at 2 years (months)                                | 24.4 (.8)     | 23 – 26        | 25.8 (0.7)    | 25.1 – 28.1    |
| Child age at 4.5 years (months)                              | NA            | NA             | 57.48 (1.3)   | 55.1 – 60.20   |
| Maternal Education (years)                                   | 13.8 (2.2)    | 10 – 18        | 11.0 (3.5)    | 6 – 16         |
| SES at 18m (Hollingshead Index) (possible: 8-66)             | 37.8 (15.2)   | 9 – 63         | 24.3 (9.5)    | 8 – 45         |
| LENA Recording Length  | 10.9 (3.7)    | 5.8 – 16       | 13.2 (3.8)    | 5.5 – 16       |
| Mean AWC/10 min of dense talk                                | 472.9 (280.9) | 136.9 – 1364.4 | 581.2 (261.8) | 151.7 – 1151.3 |
| Language Outcome at 4.5 years (composite of CELF-4 and PPVT) | NA            | NA             | 96.1 (16.8)   | 68.5 – 128.50  |

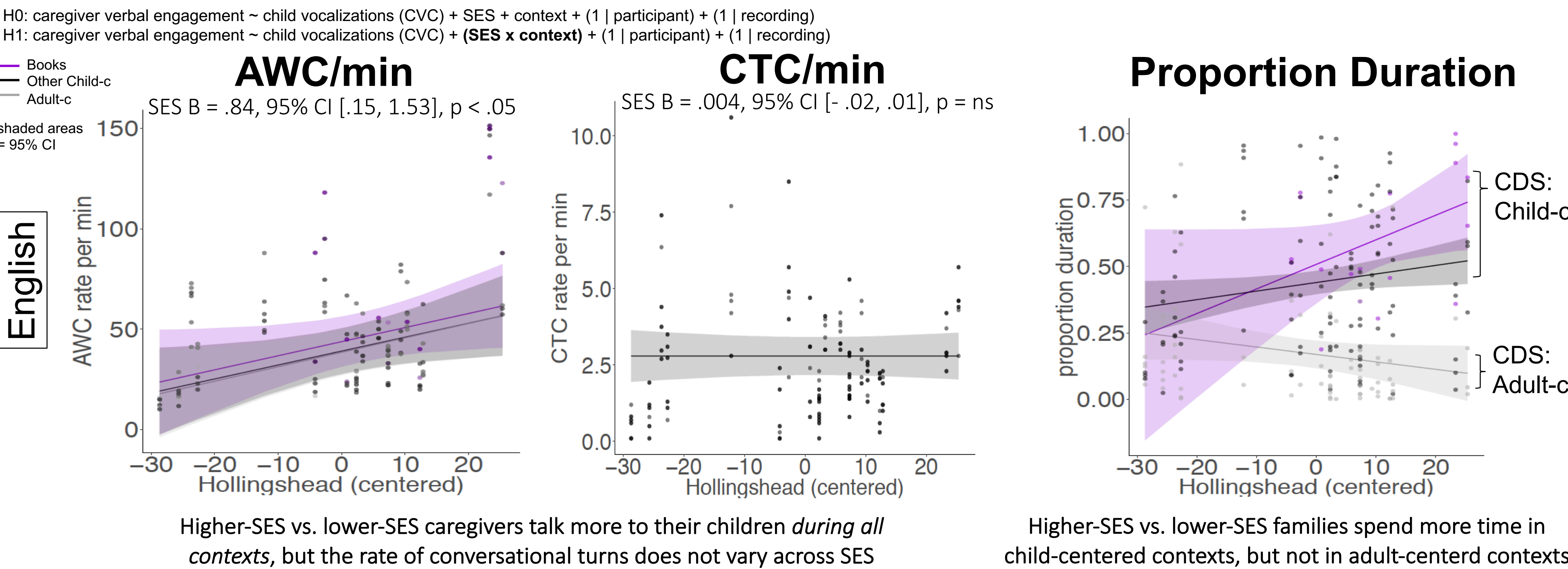
## Coding of ‘meaningful moments’:



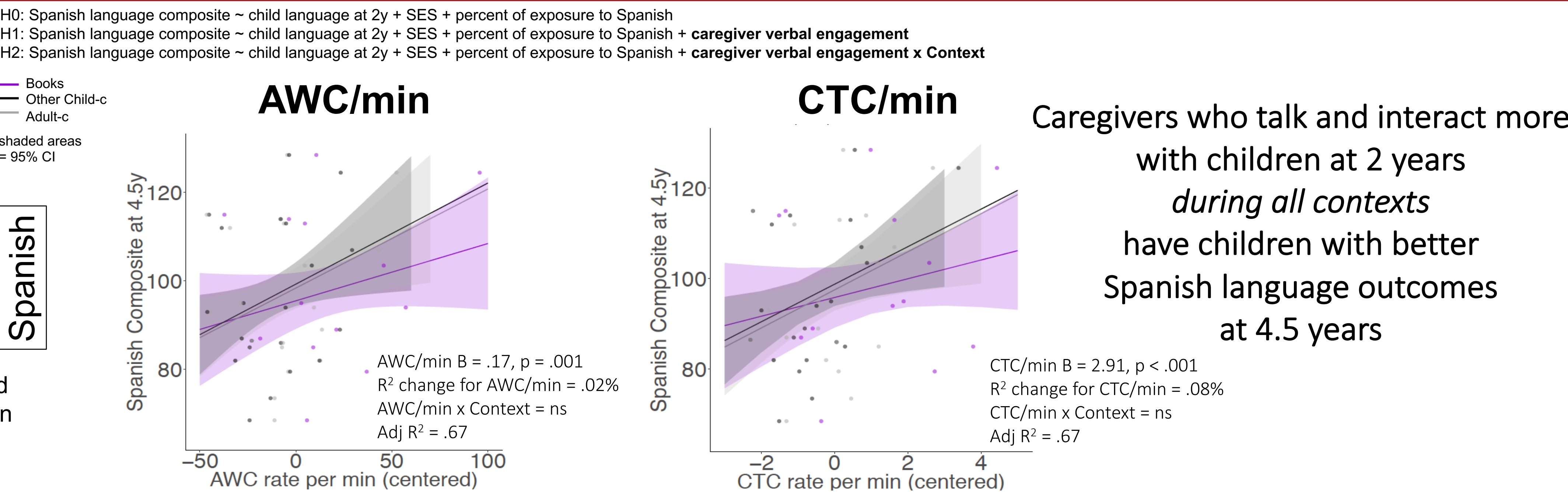
## Results: What are the different contexts of caregiver-child interactions?



## Results: How does SES x caregivers’ verbal engagement vary by context?



## Results: How does caregiver’s verbal engagement x 4.5y child language vary by context?



## Conclusion

- Dense, spontaneous, everyday interactions between children and their caregivers occurred during **many different types of child-centered contexts** (e.g., book sharing, mealtimes, dressing, play). Via these naturalistic, day-long recordings, we also observed that caregivers and children frequently engaged during **unstructured conversations** and **adult-centered** contexts.
- In English-speaking families, children from **higher- vs. lower-SES background heard MORE TALK overall, regardless of context** (Hart & Risley, 1995; Hoff, 2003). This finding contrasts those of previous studies which relied on standardized, rather than spontaneous, recording settings (Dunn et al. 1977; Hoff-Ginsberg, 1991; Snow, 1976). No SES effects were observed with conversational turns.
- In English-speaking families, **higher-SES families spent more TIME during child-centered interactions**, compared to lower-SES families. The time spent during adult-centered interactions did NOT vary as a function of SES. This suggests that an area to emphasize for lower-SES families could be talk during adult-centered activities.
- For Spanish-speaking families, **total talk and conversational turns at 2 years were associated with BETTER Spanish language outcomes at 4.5 years old**. Such positive relations were evident regardless of context, suggesting that increases in talk during book-reading, as well as in child-centered and adult-centered contexts, can be supportive of children’s language learning.

## Future Directions

- In ongoing work, we are transcribing all interactions to obtain more precise estimates of total talk and turns between caregivers and children, as well as other variables of the quality of the language input (i.e., types, MLU, repetitions, expansions).
- We are also planning to follow-up with English-speaking families when the children are 8-10 years old to better understand the long-term consequences of early caregiver-child interactions across families from a broad range of SES backgrounds.

## References

- Daneri, P. M., Blair, C., Kuhn, L. J., & FLIP Key Investigators. (2018). Maternal language and child vocabulary mediate relations between socioeconomic status and executive function during early childhood. *Child Development*, 1-18, doi: 10.1111/cdev.13065
- Dunn, J., Wooding, C., & Hermann, J. (1977). Mothers’ speech to young children: Variation in context. *Developmental Medicine and Child Neurology*, 19(629-638).
- Hart, B. & Risley, T. (1995). *Meaningful differences in the everyday experience of young American children*. Baltimore, MD: Brookes Publishing Co.
- Hoff-Ginsberg, E. (1991). Mother-child conversation in different social classes and communicative settings. *Child Development*, 62(4), 782-796.
- Soderstrom M., Wittebolle K. (2013) When Do Caregivers Talk? The Influences of Activity and Time of Day on Caregiver Speech and Child Vocalizations in Two Childcare Environments. *PLoS ONE* 8(11): e80646. doi:10.1371/journal.pone.0080646
- Snow, C.E., Arlman-Rupp, A., Hassing, Y., Jobse, J., Joosten, J., & Vorster, J. (1977). Mothers’ speech in three social classes. *Journal of Psycholinguistic Research*, 5(1), 1-20.
- Tamis-LeMonda, C. S., Custode, S., Kuchirko, Y., Escobar, K., & Lo, T. (2018). Routine Language: Speech Directed to Infants During Home Activities. 1-18, doi: 10.1111/cdev.13089

**Acknowledgements:** We thank the participants and the RAS at the Center for Infant Studies. This work was supported by grants to Anne Fernald (NIH-HD09234-3031) and the Schusterman Foundation. Poster presented at the Society for Research in Child Development (SRCD), Baltimore, MA (March 2019).