

Cross-linguistic disfluency patterns in monolingual and bilingual children who do and do not stutter: Evidence from Russian and Hebrew



Sveta Fichman
Jerusalem Multidisciplinary College, Israel



Aims

Address the effect of bilingualism on stuttering by comparing **6 groups**:

- Monolingual children who stutter speaking Russian **MCWS-R** and Hebrew **MCWS-H**
- Monolingual children who do not stutter speaking Russian **MCWNS-R** and Hebrew **MCWNS-H**
- Bilingual children who stutter **BCWS** in both languages Russian and Hebrew
- Bilingual children who do not stutter **BCWNS** in both languages Russian and Hebrew

Problem

- Bilingual children show high disfluency rates of SLDs and ODs (Byrd et al., 2015; Fichman, 2025; Fichman et al., 2023).
- Direct comparison of bilingual and monolingual speech has not been done.

Research questions:

1. Are there differences between bilingual and monolingual speech in SLD and OD?
2. Do bilingual background factors explain the variance observed in SLD and OD?

Method

Participants

Table 1. Number of children

Monolingual				Bilingual	
CWS		CWNS		CWS	CWNS
Russian	Hebrew	Russian	Hebrew		
3	7	17	5	2	23

Bilingual criteria: ability to tell a full story in each language

Stuttering criteria: parental/SLP concern & >3% SLD (in both languages for bilinguals)

Materials & Procedure

3 speech samples: Spontaneous speech, Narrative telling, Narrative retelling (in both languages for bilinguals)

Bilingual background data: Exposure to each language, proficiency (lexicon and morpho-syntax)

Results

Figure 1. Boxplots %SLD

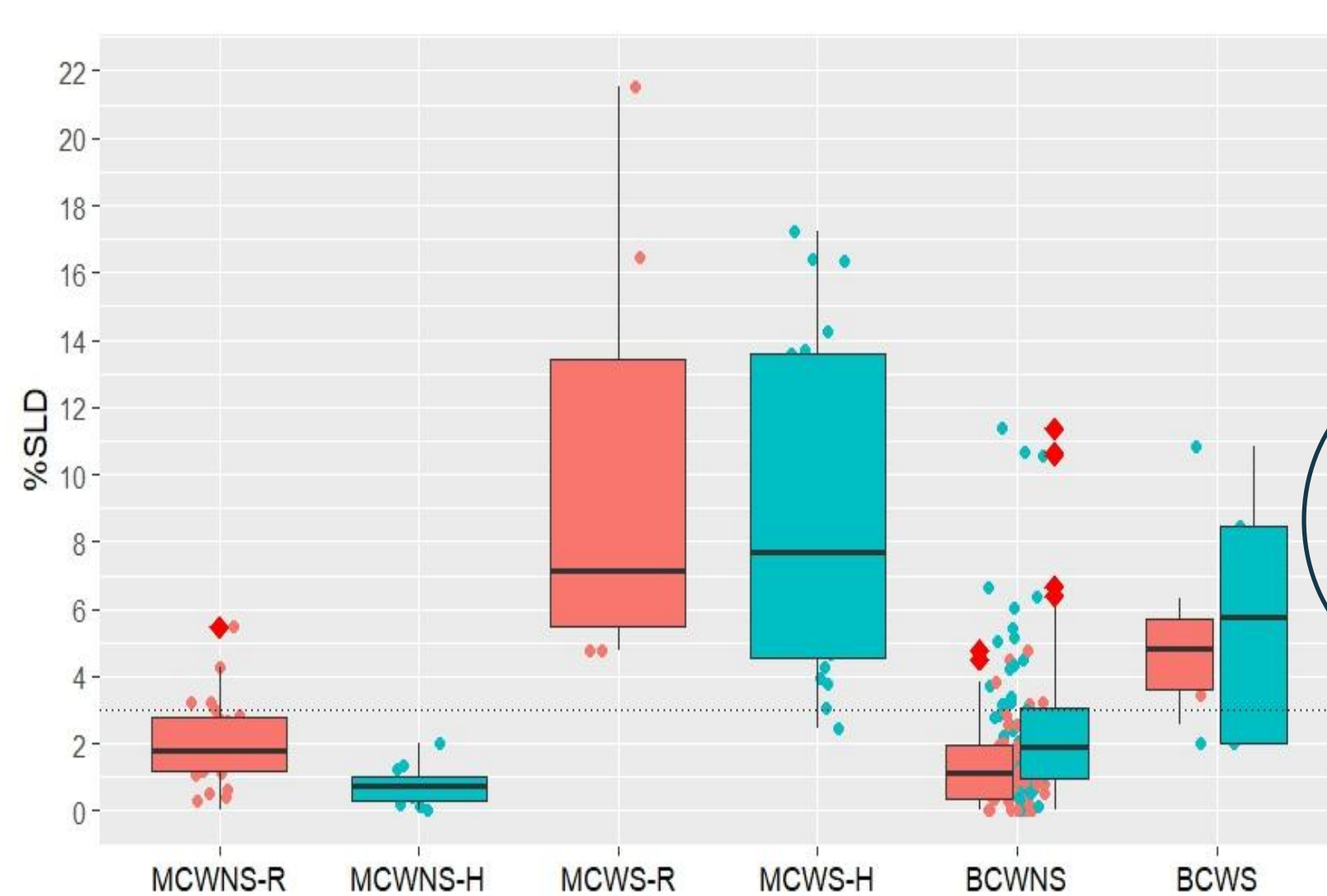


Figure 2. Ridgeline plot %SLD

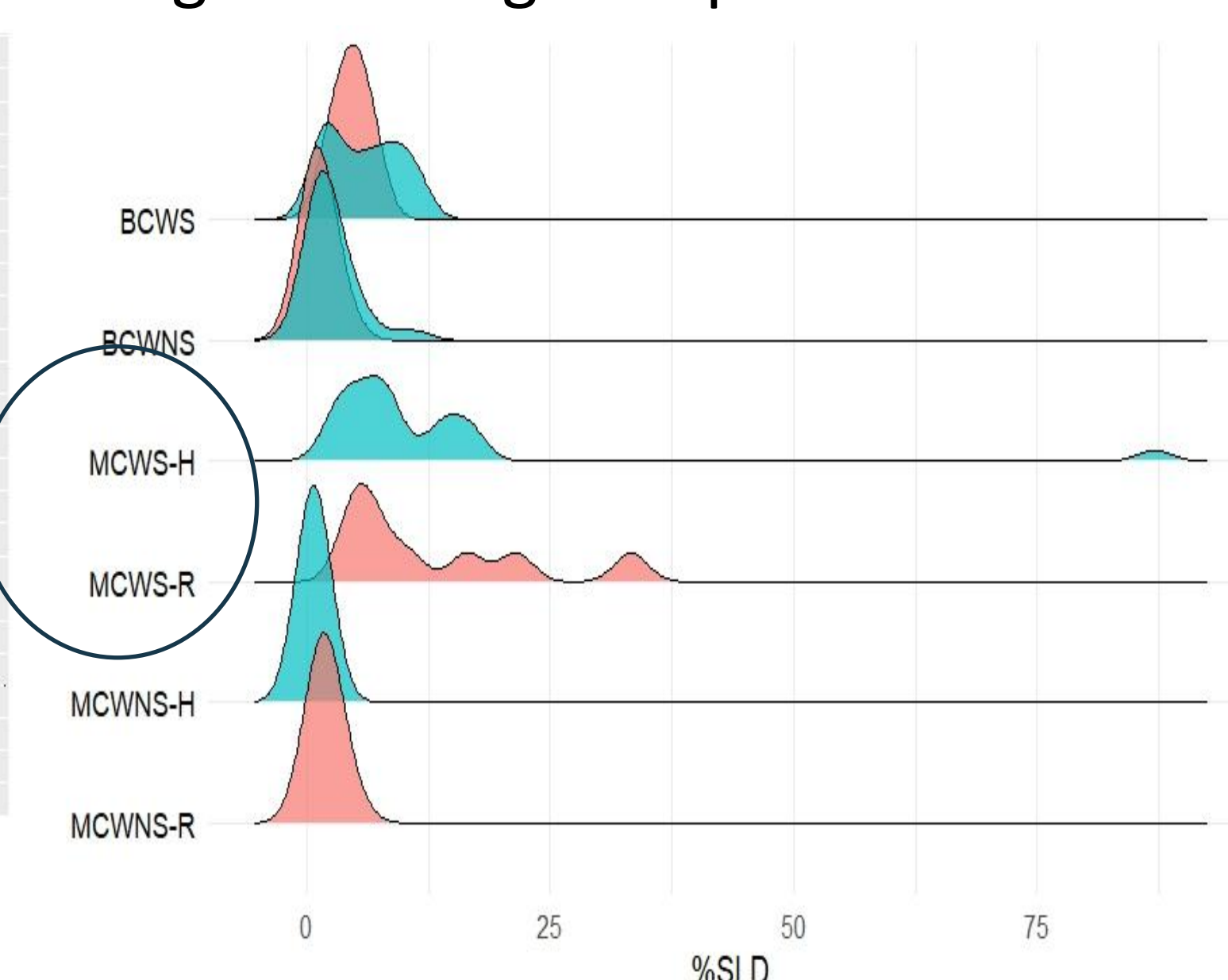


Figure 3. Boxplots %OD

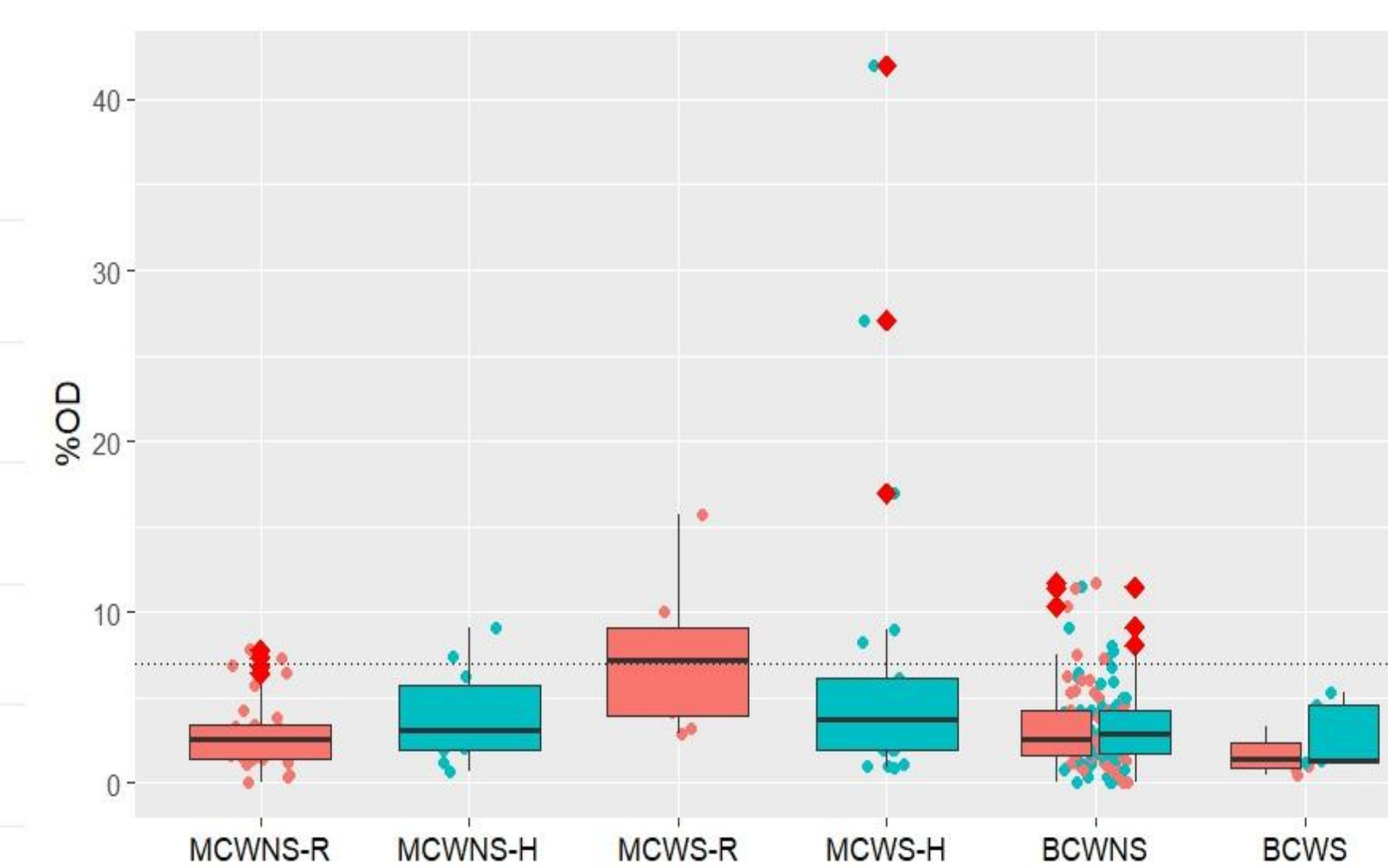
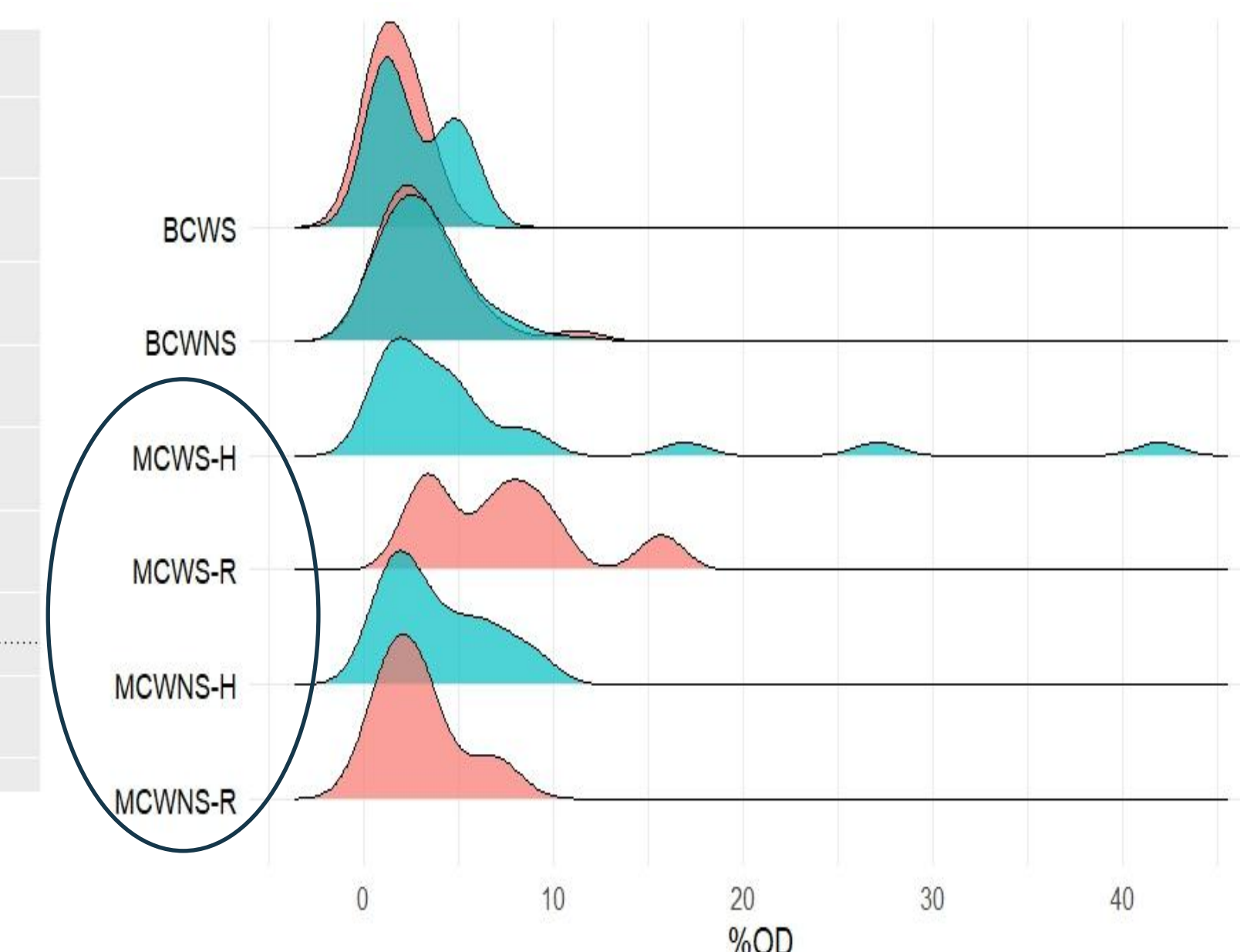


Figure 4. Ridgeline plot %OD



- ✓ Effect bilingualism $\chi^2=8.86, p<.001$
Monolingual > Bilingual
- ✓ Effect of stuttering $\chi^2=32.76, p<.001$
- ✗ No effect of Language
- ✓ Effect of Exposure in bilinguals

Stuttering vs. TD profile
Stuttering profile in BCWS in Hebrew

- ✗ No effect bilingualism
- ✓ Effect of stuttering $\chi^2=6.48, p<.001$
- ✗ No effect of Language
- ✗ No effect of Language

Monolingual vs. Bilingual profile
Monolingual profile in BCWS in Hebrew

Discussion

- Challenges of direct comparison of bilingual and monolingual data
- Different profiles of stuttering and TD in terms of distribution/density of disfluencies:
 - **Stuttering:** wider spread of %SLD

Bilingualism: less spread of %OD

Acknowledgements

Grant from the National Institute of Psychobiology in Israel; PI Sveta Fichman

References

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