

Resource Summary Report

Generated by SPARC SAWG on Sep 17, 2026

Arredondo ANT fNIRS dataset1

RRID:SCR_002653

Type: Tool

Proper Citation

Arredondo ANT fNIRS dataset1 (RRID:SCR_002653)

Resource Information

URL: https://scicrunch.org/resources/Tools/record/nlx_144509-1/6b508d2a-fd5f-56f2-93cf-462fcd52548e/search?q=*&l=&facet%5B%5D=Parent%20Organization:University%20of%20Michigan

Proper Citation: Arredondo ANT fNIRS dataset1 (RRID:SCR_002653)

Description: THIS RESOURCE IS NO LONGER IN SERVICE. Documented September 12, 2017.

Dataset in Bilingual exposure optimizes left-hemisphere dominance for selective attention processes in the developing brain by Arredondo, Su, Satterfield, & Kovelman (XX) Does early bilingual exposure alter the representations of cognitive processes in the developing brain? Theories of bilingual development have suggested that bilingual language switching might improve children's executive function and foster the maturation of prefrontal brain regions that support higher cognition. To test this hypothesis, we used functional Near Infrared Spectroscopy to measure brain activity in Spanish-English bilingual and English-monolingual children during a visuo-spatial executive function task of attentional control (N=27, ages 7-13). Prior findings suggest that while young children start with bilateral activation for the task, it becomes right-lateralized with age (Konrad et al., 2005). Indeed monolinguals showed bilateral frontal activation, however young bilinguals showed greater activation in left language areas relative to right hemisphere and relative to monolinguals. The findings suggest that bilingual experience optimizes attention mechanisms in the language hemisphere, and highlight the importance of early experiences for neurodevelopmental plasticity of higher cognition. These data are made available from Ioulia Kovelman's Language and Literacy Lab at University of Michigan and may be exported through the NIF Data Federation. To cite these data please use this text Data were published by Arredondo et al. (XX) and made available via the NIF at XX

Abbreviations: AAF Data, AAF Data1, AF Data, AF Data1

Synonyms: ANT fNIRS Dataset1, ANT fNIRS Data Set1, Arredondo ANT fNIRS Data Set 1, Arredondo ANT fNIRS Data Set1, ANT fNIRS Data Set 1

Resource Type: data or information resource, data set

Keywords: attention, functional near infrared spectroscopy, fnirs, bilingualism, language, child, ant, developing, brain

Related Condition: Healthy

Availability: THIS RESOURCE IS NO LONGER IN SERVICE

Resource Name: Arredondo ANT fNIRS dataset1

Resource ID: SCR_002653

Alternate IDs: nlx_156086

Record Creation Time: 20220129T080214+0000

Record Last Update: 20260912T200313+0000

Ratings and Alerts

No rating or validation information has been found for Arredondo ANT fNIRS dataset1.

No alerts have been found for Arredondo ANT fNIRS dataset1.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We have not found any literature mentions for this resource.