Introduction
Speaking and understanding must derive from performance limitations of both the auditory and motor-muscular pathways. The auditory stimulation intakes comprehension remains a problem. However, previous studies support a model in which short time intervals in the ~20–50 ms range might involve specific phonemic auditory oscillatory rhythms compared to longer language disorders provide a window for the search of the genetic basis of speaking and understanding, we focus on the speech and language performance of a subject.

Paloma García-Bellido and a Long Sustained Attention Interval
We identified two types of Sustained (SI). We found that auditory overestimation of non-sensical aural sub-sequences (phonemes), in sequences ranging from 110ms to 2s, was statistically significant compared to a control. We now measure if there is a correlation between articulation and the presence of a relevant short interval (SI).

Results
1. Subject A’s performance reached a 5 year level compared to the control who was normal for his age (Fig 6). The differences between A and C with respect to the SI, which is crucial for the interpretation in both languages, we found a statistical significance of p<0.042×10⁻² (Fig 12). It was also found, but not quantified, that whether a crucial SI stimulus was not perceived (Passive auxiliary, Accusative Clitic, Accusative topicalization) or perceived (Relative pronoun constructions (Figs 5, 10), non-reflexive ditto constructions, and relative pronoun constructions), the integration of LiS was generally achieved nevertheless but producing a wrong meaning. Speaking A performed in Relative Clauses constructions (Fig 7). Providing the Short Sustained Attention interval given in Fig 9, corresponding to type 1 and probes insted by C (Fig 10 and 11). Subject A produced 14 utterances out of 80, with the same error in both languages, while C produced only 4 for both languages.

Design of Perception Experiment
A standard comprehensive test of basic grammatical structures for a Spanish population between ages 4–11 was used. The child had to point to one of 4 images to match the communicative intention of the utterance (Fig 4).

Subjests
Subject (n=2). Age at the time of the test: A=11y8m, C=11y5m.

Method
Both Spanish and Valencian utterances were automatically time-aligned with transcripts to find word (and phone) boundaries. CMU Sphinx speech recognition software is in forced alignment mode was used to force align recordings of the Castilian and Valencian utterances with their corresponding words. Due to the phonetic similarities of Castilian and Valencian languages we only use Castilian acoustic models and a vowel inventory to perform the forced alignment for both languages. The acoustic models used for the forced alignment were trained using read sentences by male and female speakers in Castilian. The pronunciation dictionary was generated automatically using the ortho tool.

Discussion
The neural mechanisms for sustaining the perception or execution of one interval or for sustaining the attention of two intervals is known to be expressed in these networks, supporting the anatomy and physiology of this network. The differences between two languages (Valencian and Castilian) with respect to the utterances or blocks were not significant (Figs 7 and 8) for each subject.

References
(10) http://nijm.acra.acoustic-neuroinformatics

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