

Does babbling have a linguistic purpose?



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Babbling has no linguistic purpose and is merely motor activity resulting from the opening and closing of the mouth and jaw. Examine this claim in light of cross-linguistic evidence, paying particular attention to the research covered in this course.

Babbling, in the Oxford Research Encyclopaedia of Linguistics is defined as “meaningless speech-like syllables...characterized by the coordination of consonantal and vocalic elements in syllables that have speech-like timing, phonation, and resonance characteristics” (Rvachew and Alhaidary, 2018). The biological basis of babbling has been debated amongst linguists and there are two main positions which are held within the debate. One formulated argument is that babbling does not have a linguistic purpose and is merely a motor skill. This viewpoint was held by Jakobson, he stated that: “babbling is the purposeless egocentric soliloquy of the child... biologically oriented tongue delirium” (Jakobson, 1941; cited in Menn & Stoel-Gammon, 1995). This argument assumes that all babies, regardless of their linguistic background, babble the same due to biomechanical restrictions on the sounds which babies can produce. The opposing argument is that babbling serves a linguistic purpose and is a precursor to language. Throughout the essay, the following studies will be examined and discussed: Boysson-Bardies (1993); Boysson-Bardies (1989); and Petitto et al., (2001). The studies will be considered as evidence in either support or opposition in examining the claim: ‘babbling has no linguistic purpose and is merely motor activity resulting from the opening and closing of the mouth and jaw’.

1) Do babies babble the same sounds regardless of their linguistic environment?

Boysson-Bardies et al. (1989) study will provide systematic cross-linguistic evidence to analyse, in either support or opposition of the hypothesis: ‘babbling has a no linguistic purpose or is merely motor activity resulting from the opening and closing of the mouth and jaw’. The question was raised “whether the phonological organization of native language exercises an influence on the phonetic structure of babbling” (Boysson-Bardies et al., 1989). In order to empirically test this line of investigation, languages with different vowel spaces were considered as vowels are salient and easier to produce than consonants. If an environment influences early phonology in babbling, then Boysson-Bardies et al. believed there to be systematic differences in the vowel sounds produced between linguistic communities. Therefore, the study was comprised of groups with differing vowel spaces from one-another: English, French, Chinese (Cantonese) and Algerian (Arabic) were chosen. The researchers studied five babies from each linguistic group, all of whom were aged ten months and the babies remained in their native and familiar environments.

The results found that English babies were more likely to produce more high-front vowels; Cantonese babies produced more low-back vowels; Algerian babies produced more centralised vowels and French babies had similar tendencies as the English babies and produce high-front vowels. Therefore, exhibiting that the phonetic structure of babbling differs between linguistic groups. This presents evidence against the notion that all babies, regardless of their linguistic background. Furthermore, “a parallelism was observed... between vowels of the children and the vowels of the adults” (Boysson-Bardies et al., 1989); simply meaning that the phonetic structure of babbling

imitates the phonetic structure of their native adult language. Hence, it can be argued that

babbling is a precursor to language.

II) Do Yoruba babies babble in Yoruba?

Although, the above study presents a parallelism between the vowels of children and the vowels of adults, due to the fact babbling is usually structured vowel-consonant-vowel “ it remained to be seen whether the repertoire of the language has an influence on consonants and syllables”(Boysson-Bardies, 2001). Thus, critics were yet to be convinced that babbling was a precursor to language as they sustained the belief that there are biomechanical restrictions on the sounds which babies can produce. As consonants require a more refined motor skill and are considered more complicated to produce than vowels, a study was conducted by Boysson-Bardies (1993) to establish whether there was a parallelism between consonants of children and the consonants of adults.

In order for this hypothesis to be tested Nigerian babies were observed due to Yoruba being a language in which the majority of the words start with a vowel and the results were compared to French, English and Swedish children. The results showed that “ between 65 and 75 percent of the disyllables produced by the French, English and Swedish children...against 38 percent for Yoruba children” (Boysson-Bardies, 1993). The difference in percentages were due to French, English and Swedish babies were from linguistic communities with a consonant-vowel-consonant-vowel structure. Whereas, Yoruba babies were a linguistic community with the phonetic form

of vowel-consonant-vowel. Thus, the results support the view that babbling has a linguistic purpose and is not merely motor activity due to the fact Yoruba contradict the claim there are biomechanical restrictions on the sounds babies can produce and both sets of children imitate the phonetic structure their native language, similarly to the results found in (I).

III) Do babies with no speech input babble?

The study of Petitto et al. (2001) provides motor evidence in order to establish whether ‘babbling has no linguistic purpose and is merely motor activity resulting from the opening and closing of the mouth and jaw’. Petitto et al. (2001) studied two groups of babies: one group included three hearing babies but who were exposed to sign language from their deaf care-givers. Within the second group were three speech-exposed babies. By looking at children exclusively exposed to sign language the focus is no longer on the phonetic structure of babbling, it is whether they babble verbally or whether they imitate their care-givers and babble manually, imitating adult sign language. Petitto et al. (2001) formulated two predictions: one in favour of the motor hypothesis which stated that: the hand activity of the sign-exposed babies will be similar to the hand activity of hearing babies. The other prediction was in favour of the linguistic hypothesis which stated: if there are differences in the language input will produce differences in the hand activities of the two groups.

In order to test the hypotheses an opto-electronic position-tracking system (Optotrak) was used to record the hand activity of babies aged around 6, 10 and 12 months. The data from Optotrak revealed that “sign-exposed babies

showed a significantly different type of low-frequency rhythmic hand activity from speech-exposed babies” (Petitto et al., 2001). 82% of the hand activity of sign-exposed babies was low-frequency which is hand activity within ‘sign-phonetic’ space. Additionally, 73% of the hand activity of sign-exposed babies was high-frequency compared to speech-exposed at 92% which is hand activity outside the sign-phonetic space.

The results show that sign-exposed babies perform different types of hand movements for linguistic and motor purposes; “ these linguistic and motor movements are differentiated by their distinct rhythmic frequencies...which corresponds to the rhythmic patterning of adult sign-syllables” (Petitto et al., 2001). It can be argued that babbling has a linguistic purpose, due to the fact sign-exposed babies babble manually (imitating adult sign-syllables), which do not require motor activity of opening and shutting the mouth and jaw.

In conclusion, Boysson-Bardies et al. (1989) and Boysson-Bardies (1993) provides systematic cross-linguistic evidence in favour of the viewpoint that babbling has a linguistic purpose in the role of early acquisition. The results of Boysson-Bardies et al. (1989) contradict the argument that all babies, regardless of their linguistic background, babble the same. Due to the evidence suggesting that the phonetic structure of babbling imitates the phonetic structure of their native adult language, thus not the structure of babbling differs in each language. Additionally, Boysson-Bardies (1993) results opposed the claim that babies babble the same due to biomechanical restrictions on the sounds which babies can produce. Yet, Yoruba-exposed babies do not experience such biochemical restrictions when producing babbles structured in the phonetic form of vowel-consonant-vowel. Lastly, <https://assignbuster.com/does-babbling-have-a-linguistic-purpose/>

although the sample size of the study of Petitto et al. 2001 was small and can be argued not representative of the population, it is effective in disproving the notion that babbling is merely a motor activity resulting from the opening and closing of the mouth and jaw. The evidence suggests a parallelism between the sign-exposed babies' low frequency hand activity and “ the rhythmic patterning of adult sign symbols” (Petitto et al., 2001). In addition to this, sign-exposed babies babble manually, which does not require motor activity of opening and shutting the mouth and jaw.

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