At titled selective attention to a talker’s

Psychology, Behaviorism

At first, it doesn’t seem like an important surface-levelthought to think about where a person looks and what features they notice whenthey are listening. However, with proper research insight, it can be proven tobe quite valuable for insight about how a human infant learns about speech andlanguage. Hillarie de Boisferon et al. (2017) indicate in their paper titled Selective attention to a talker’s mouth ininfancy: role of audiovisual temporal synchrony and linguistic experience, that previous research has found infant’s attention shifts in conversation asthey mature. At first they seem to focus on the speaker’s eyes, beforeallocating their focus unto the mouth, and eventually away from that zonethroughout maturation.

Expanding off of this knowledge, Hillairet de Boisferon et al. (2017) perform a series of twoexperiments aimed at observation of infant’s focus patterns under conditionswhere the speech coming from the mouth of the speaker is not entirely lined upwith the visual information of the words being conveyed. They call thiscondition the desynchronized condition, and is compared to a synchronized onewhere the factors are temporally lined up. This desynchronized manipulation condition prompts thequestion asked by Hillairet de Boisferon et al. (2017) as to whether the infant willcontinue to follow the conventional pattern of focus upon the mouth of thespeaker (as discussed to be around 6 months of age) or shift back theirattention to the speaker’s eyes as seen in both prior and later points of age. This testing question was performed and split between two different conditionsof language: infants witnessing same-language speakers and those witnessing adifferent-language speaker. Hillairet de Boisferon et al.

(2017) also indicate that in variousprevious studies, in both the infant conditions, the focus was upon the mouthafter approximately 6 months as age, as previously described, regardless of thelanguage witnessing condition. They indicate that the only major difference ofinitial note, from previous research, witnessed between the two exposuregroups, were that there is a sticky focus upon the mouths of the non-nativelanguage speaker for infants 12 months of age. It’s described that infantsstill tend to have major focus upon the mouth at this time, whereas incomparison to the same-language condition, they had moved on. This is assumedto be likely due to observing and using visual cues from the mouth in anattempt to understand the different linguistic units that are so foreign to them. There were a series of twoexperiments performed by Hillairet de Boisferon et al. (2017) as previously indicated. The first upon children in witnessing theirnative language, and the second one upon those witnessing foreign speech.

Therewere a number of different infant age groups measured, that were consistentacross both experimental conditions. These were in intervals of two monthsranging from 4 to 12 months of age. The prime directive of this study was todesynchronize the audio content with that of the video content presented. Thiscreates a situation of observation to determine if infants would continue theirpattern previously observed between mouth and eyes throughout age, or switchdue to the nature of asynchrony. Eye tracking is used as the prime means ofdetermining this, and is done so with a show of video of one of two types: either tonality and language and infant would normally experience from theirparents, or tonality and language more common to that of adults in peer-to-peerconversation.

This footage becomes desynchronized by 666ms in order to hope toelicit some change of eye behavior, and thus be able to monitor it with thetracking device. The second experiment performed by Hillairet de Boisferonet al. (2017) was based around children witnessing speech in a language that isnot their native tongue, in this case it was Spanish. The procedures were thesame, with the speech in the video mimicking that of the previous experiment inall lexical content, and the desynchronized video falling under the sameparameters, with the only difference being the language emitted from therecording. Resultsof the two studies from Hillairet de Boisferon et al. (2017) indicate that in the first experiment, only at around 8 months does the attention of the infants become focused on oneaspect of either eyes or mouth, and in this case, it was the mouth.

Throughoutall other measured age periods, there was no preference to either the mouth oreyes. In the paper, it is indicated through comparison to previous results, that there is actually a difference around 10 months of age. These 10-month-oldinfants stopped looking at the mouth in a desynchronized condition whereas itwas previously noted that they continued with the mouth looking in synchronizedconditions. Hillairet de Boisferon et al. (2017) conclude that the reason forthis is due to to a learned knowledge of how the mouth operates for speech bythat age, and that they know enough about the language they are listening, soin a desynchronized condition they have no need to continue the looking at thatlocation. Results from the second experiment from Hillairet deBoisferon et al.

(2017) show some significant findings under thealternate-language condition of desynchronization. These were that 4-month-oldswould not tend to a specific location, and the 10-months-olds not necessarilyfocused on one facial feature over another, when previously noted that theywould prefer looking at the eyes in the 4-month age bracket and mouth in the 10-monthage bracket. They also note that in this comparison of 10-month-olds betweenthe two experiments performed in this study, the 10-month-olds in the secondexperiment under the desynchronized condition would exhibit more eye focus thana synchronized condition, but it wasn’t much more. Both 8-month and 12-month-oldswould tend to the mouth in a desynchronized condition, but was notstatistically significant in the 12-month-old age group.

It indicated that it’spossible that some kind of