

Experimental psychology - lab report example



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Discussion The results of the experiment didn't yield significant differences in right ear word memory. The left ear yielded a statistical ratio of 5.95% and the right ear 6.27%. While there is a slight differential, it was not significant enough to deem the results of the study conclusive that there is a marked advantage in word memory when heard through the right ear.

While previous studies indicate that language plays a crucial role within the human left planum, the exact ramifications of these studies has not yet been completely determined. In a 1996 study titled, Function of the left planum temporale in auditory and linguistic processing, researchers attempted to determine the extent to which processes affecting the left planum temporale are restricted to linguistic utterances, or can be extended to sound forms of right-handed individuals. The study indicated that varying degrees of sensory activation occurred in the planum temporale dependent upon the listener's active engagement with the process, with the planum temporale being more active to tones when the listener was actively engaged.

This is significant for the current study, as it indicates the level and type of word engagement affects the ultimate results regarding word recognition.

When considering the implications, one could argue that the individual features of the study contributed to the results not being statistically significant. A possible example includes the uneven gender of the participants, as it's possible that gender differences affect word recognition to differing degrees. Another reason is that the participants were all Junior level Psychology Students at Purchase. It's possible that by limiting the study to this demographic, the results of the study were skewed.

Another example concerns the difficulty of the word lists used in the study. Past studies have indicated that the right ear advantage was most consistently gained when the study was complex. For instance, in a 1974 study titled Right Ear Advantage for Speech Presented Monaurally D. B. Fry discusses results that indicate right ear advantage was only triggered when a threshold level of complexity was passed. He writes:

...in a series of experiments with children in the age range 6-12 years...the speech materials used was series of digits or series of letter names and the measure of ear asymmetry used was correct recall of the series. While there was a trend towards REA (right ear advantage) for speech in the older children, the effect reached level of significance only for the longest series and only when recall in the right order was required (Fry 1).

It's possible that the simplicity of the word lists did not acutely test the right ear advantage strenuously enough to determine a statistically significant advantage.

Ideally, future studies would consider the varying factors when developing results. Future studies could focus on the possibility of right ear advantage among females. Other possible studies could focus on participants' socioeconomic status, or personality characteristics, in an attempt to gain a more-thorough understanding of the ramifications of the study and to draw universal conclusions to the majority of humanity. Perhaps the most significant factor that needs to be accounted for in future studies needs to be the level of difficulty of the word tasks. As past studies indicate that the difficulty of the task affects right ear word recognition advantages, future studies could test subjects on a scale that utilizes more than just one form of

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test. For example, the word list test could be coupled with tests that incorporate words with higher syllable counts; they could also incorporate grammatical features, where participants are asked to remember phrases, adjectives, or sentence constructions.

Ultimately, the study reveals significant means of neurological functioning and holds important considerations for real-world scenarios. Even as no significant results were indicated, this indicates that there are significant levels of difference experienced in a relation to the complexity of test administered. It's possible that these results could be experienced in real world scenarios when acute sound levels of word recognition are required. One can consider instances where this might affect pilots, air traffic controllers, or military personal.

References

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