FINAL REPORT

for

NSC Project 88-2411-H-009-010-
Finding Experimental Evidence for the Garden Path Effect in Chinese

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This project was not completed by the end of the project period. The following is a current status report based upon the tasks of the proposal.

STATUS REPORT

Task 0:   Select and Purchase the Required Equipment/Software

This task is completed.

Task 1A: Write the Reading Test Program

After some investigation, we found that the new operating system of the Macintosh, and the new Macintosh computers support a timing function resolution of a microsecond. Therefore, there was no need to purchase the expensive PCI timer card if the Macintosh was used. Therefore, it was decided to write the program for the Macintosh.

However, this decision caused increased work since the original program was written for Windows and so it had to be ported over to the Macintosh.

As of now, the program is about 3/4 complete. It is able to read in the test files, display the test sentence one character at a time, and to record the time between the display of each character. The reason it is not complete yet is because there was the question of how the comprehension question, answers, and response were to be handled. The original program just presented the question and answers at the same time, and only the final response was recorded. However, in order to improve on the previous version, it is desired to also record the timing information about the subjects reading of the question and answers and the time they take to respond and the kind of responses they make in order to catch those cases in which after reading the sentence, the subject took extra time to answer the comprehension question because they were reprocessing the sentence or having to do extra thinking because they did not originally completely understand the question.

Various versions were created and tried, but it is not clear which one is the suitable one to use. The issue is that we do not want the subject to become fatigued with having to read each character at a time by pressing a button. Yet, if we present

questions and answers a full sentence at a time, then it will not be as clear whether the subject is taking extra time to read the question or an answer and so it will be more difficult to determine if the subject still garden pathed on a test sentence even though they read the test sentence in normal time.

A decision will have to be made (one has not yet been made) about how to present the comprehension test question before the program can be completed.

Task 1B: Write the Analysis Program

This is also about 3/4 complete.

Task 2A: Create the additional test sentences and distracter sentences

This task is complete

Task 2B: Create the Test Files for the Reading Test Program

This task is also 3/4 complete. There are still some additions to the program that will generate the test files which have not yet been made. There are a number of restrictions for the order and restrictions on the test sentences and distracter sentences which have not yet been implemented on the program to generate the test files.

Task 3:   Select the Test Subjects

This task is completed.

Task 4:   Run the Test

This is waiting for the completion of Task 1A and 2B

Task 5:   Analyze the Results

This is waiting for the completion of Task 4 and Task 1B

PROBLEMS ENCOUNTERED

The main problem encountered was the lack of time on my part to write the programs and to determine the yet unanswered question in Task 1A. Additional communication with other researchers will be required to get a better understanding of how to deal with the problem of subject fatigue and yet of making sure we can also catch the subjects who are taking extra time to answer the comprehension question because of garden pathing.

CONCLUSION

While the project is not complete, major portions of it have been completed. It is expected that the project can be completed without need for additional resources as

soon as the researcher can find time to finish Tasks 1A and 2B. Subjects are waiting to be tested.