# Ross School of Business at the University of Michigan Independent Study Project Report 

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TERM : Fall }199
COURSE : MKT 399
PROFESSOR :
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TITLE : Cross-Cultural Memory Differences for Advertisement
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## MARKETING 399 RESEARCH PAPER

CROSS-CULTURAL MEMORY DIFFERENCES FOR ADVERTISEMENT

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## PURPOSE OF THE STUDY

Many have claimed that our world is becoming a huge global village where all will be similar, it is important to acknowledge that cultural differences $\wedge^{\wedge}$ rexist (several psychology studies have proven that differences across culture groups do exist.) These inevitable differences have important effects on us, causing differences in perceptions, values and perhaps even memories.

In this study, we are interested in finding out if the cultural differences between the East and the West indeed affect our memories; and if so, how does it affect. Through the findings and the results, we could perhaps discover how people of the Western culture remember better and how companies could then tailor their printed advertisements to strike more lasting impressions in this culture group. Similarly for the Asian consumers, if our study hypothesis proves to be right, firms may wish to employ more congruent and socialoriented advertisement designs to induce better consumer memory for their brand names.

Our study might even offer some explanations as why certain types of advertisements are not as effective with one culture versus another, assuming that the product in concern is equally applicable and familiar in both cultures.


#### Abstract

Many previous studies have shown that the Chinese culture is characterized by its Not exactly holistic way of processing information and American culture by its individualistic manner. In this study we wanted to examine whether this cultural difference in information processing would contribute to a difference in memory performance. In addition, we were also interested in finding out if the memory would be affected when subject to different priming stimuli. The results of our experiment indicated that culture affects memory performance. We however could not come to a satisfying conclusion as whether different external stimuli would affect memory. We could only conclude that Americans remembered better or could recall more of than when visually primed the advertisement details when verbally primed. There is however no evidence to prove that Chinese remember better when visually primed. $\qquad$


## CROSS-CULTURAL DIFFERENCES IN ADVERTISEMENT MEMORY

## Background Information

The way East Asians (Chinese, Korean and Japanese) process information has always been distinguished as holistic and relational. This simply means that parts exist within wholes and their relationship is inseparable. An example to illustrate this would be in Chinese writing system. Each individual Chinese character consists of a radical and another part(s) to become a meaningful whole. This holistic and context-dependent way of thinking may be attributable to their culture and society. Chinese culture is highly collectivist and grouporiented. Their social behavior is primarily based on relationships with others and with the environment. On the contrary, the Western society emphasizes and cultivates individualism. The American culture in particular is person-centered and tend to isolate the individual from relationships, roles, and social contexts when determining causes of behavior (Morris, Nisbett \& Peng, 1995).

## HYPOTHESES

The two key purposes of this study were to find out if culture differences affect memory performance and if memory performance deviates when subjected to different stimuli.

Hypothesis 1

In accordance to the first study objective, we hypothesize that culture differences would cause differential memory performance. Given the holistic information-processing characteristic of the Eastern Asians, we hypothesize that the Chinese would have better memory when exposed to a social oriented environment. They would gather all the different
pieces of information from the given situation, group them and remember the details as a whole. The Westerners, in the contrary, would outdo the Asians when given information in details or in solidarity, since they are shown to be more analytical and tend to isolate information from its context.

We devised an advertisement-related memory task, consisting of product advertisements on two different kinds of backgrounds for the study purpose. The products are set in two different kinds of settings, either social or asocial. In the social backgrounds, the scenes are congruent to the product categories, either of people interacting with each other or with the product, while simple outlines of random and repetitive shapes make up the asocial backgrounds.

Given the different ways of processing information, we expected the Chinese participants to remember better advertisements with social backgrounds. The American participants on the other hand were expected to score better with the asocial backgrounds than with the social ones. Since Americans process information by singling out the relevant pieces, the rich information presented by the social backgrounds might distract them and cause them to perform not as well with social context advertisements. comp need with
Hypothesis 2

The second hypothesis we hold is that different stimułants would cause differences in memory performances. Since previous studies have shown that the Asian cultures are more in their proassin
holistic, we expected the Chinese to perform better when stimulated visually. The Americans are expected to do well when primed verbally as they are more analytical and detail oriented. We administered either a verbal or a visual priming test for each participant before they embarked on the advertisement memory test. We predicted the following results:
a) Chinese subjects who were given the visual task would have better memory than Chinese who were given the verbal task;
b) American subjects who were given the verbal task would have better memory than Americans who were given the visual task;
c) Among subjects who were given the visual priming task, the Chinese would have better memory performance than the American subjects;
d) Among subjects who were given the verbal priming task, the Americans would have better memory performance than the Chinese subjects would.

## METHOD

## Participants

All 53 subjects recruited for this study were University of Michigan undergraduate students (aged 18-23 years, $M=20.5$ ). The 27 Caucasian American participants were chosen from a participant pool of Business School students. They were remunerated course credits for taking part in the experiments. The 26 Chinese participants were recruited from the university's international student associations (mainly Hong Kong Students Association and Singapore Students Association) and by word of mouth. The are either Chinese from Hong Kong, Singapore, Taiwan, or Mainland China. These subjects were compensated $\$ 8$ to $\$ 10$ for their participation.

In order to be qualified for our study, American and Chinese subjects had to be proficient in English or Chinese respectively. This is because the Americans would perform the experimental tasks in English whereas the Chinese would perform theirs in traditional

Chinese. We also wanted to ensure that the subjects were able to correctly understand and complete their language version of the study materials.

Since the Chinese participants are undergraduate students studying in the United States, we had to ensure that they had not been acculturated (i.e., undergone psychological and social processes in response to a changing cultural context; Berry, Poortinga, Segall \& Dasen, 1992) during their years in college. To resolve this problem, we initially screened them for the number of years they had lived in North America. If the subjects lived in North America for a total of less than five years, their chances of preserving their Chinese culture were higher; hence, were welcomed to participate in the study.

To double-check that the data for Chinese subjects was not skewed by their acculturation, we included in the task materials an English or Chinese version of Singelis' (1994) Self-Construal Scale (SCS). The P-levels of the SCS results were all higher than 0.10; therefore, none of the results were significantly different. This implied that the Chinese subjects are similar with the Americans in terms of independence measures. We attributed this to the fact that the Chinese participants have been studying in the U.S. for at least two years and have gained a significant level of independence while their stay away from home. During their stay here, they might have assimilated to the American culture too.

It is to be noted that the Chinese participants have an overall higher score for interdependence measure than the American counterparts. Though we had expected the Chinese to be less independent than the Americans, we suffice the higher inter-dependence measure as the cultural difference between the two groups.

The above finding might distort the results of our overall research. However, the significance of its distortion is unknown. We assumed that the distortion could not be great
because we had the initial screening process whereby Chinese subjects who lived in North America for more than five years were prohibited from participating in our study. In addition, our Chinese subjects have an average of 12.3 years of formal education in the Chinese Language in their respective country of origin.

## Test Materials and Procedure

Bilingual research assistants individually administered the half-hour study to participants in either Chinese or English. The Chinese-speaking participants were given verbal and written instructions both in Mandarin Chinese and English, while the American participants were provided with the equivalent instructions in English. Each participant was then given a test booklet containing five separate tasks. The tasks in both the Chinese and English booklets were essentially the same, with the only difference in the language medium. Each participant was also informed that the purpose of our research was to investigate public perceptions of print advertisements.

The first part of the test booklet consists of a priming task. Half of the participants received the verbal priming task while the other half the visual one. In the visual priming task, participants were given ten picture questions. Each question consisted of a pattern picture with a missing piece. The task was to select the best fitting piece from four alternatives. In the verbal task, each subject was to form ten words with alphabets from each of the three given words. Due to the difference in language constructs, the Chinese verbal priming task required each participant to form ten Chinese characters with the same radical as each of the three given characters.

Right after the priming task, each participant was shown 12 printed advertisement prototypes. There were two separate sets of ad prototypes, both having the same product categories. Set A consisted of six product advertisements in colored social backgrounds, with the remaining six products in asocial (i.e. black and white plain repetitive patterns) background. Set B carries the same 12 products, but each product was set in the alternative background as in Set A. All ad prototypes were arranged in the same sequence in both sets. The ad prototypes, which had written on it the product category and product brand name, were prepared both in English and Chinese.

Half of the participants were given set A while the other half, set B . The participants were shown the ads right after the priming task and were instructed to look through them carefully. The ads were taken away from the participants before they proceeded with the second part of the booklet.

In the second part, the participants were given two open-ended questions, product category / brand name matching questions, and lastly, attitudinal questions. In the openended questions, the participants were asked to recall as many details as they could regarding the advertisements they had been shown. In the matching test, participants were asked to identify if each brand name was paired with the correct product category as were in the ads (The product brand names that appeared on the ad prototypes and questions were generic names created by the researchers. A pretest on the created names was conducted to ensure the generality of the names. No existing or established names were used to prevent memory effects from previous knowledge). In the last part, participants were asked their attitudes toward each of the ad seen.

The third and last section of the booklet constituted of the Self-Construal Scale (Singelis, 1994) and a demographic questionnaire, gathering data on age, gender, and language knowledge. After completing our study session, the participants were debriefed, thanked, and compensated for their participation.

## Dependent Measure: Memory

The primary dependent measures of memory were based on the three tests in the second section of the booklet. The tests were two recall tests and a name-matching test.

In the recall tests, the participants were given two open-ended questions. In the first question, they were asked to recall as many details regarding the ads that they were shown. In the second open-ended question, the participants were asked their personal opinions regarding the ads seen. With these two tests, we were attempting to find out if the individuals could better remember the ads, product categories and/or brand names when the ad was set in a social background or in an asocial background. The brand name / product matching test was designed with the same motive.

## Results

After collecting the 53 completed surveys, we coded the results on Microsoft Excel. We next transferred the data and ran it in the SAS System. From the output generated by the program, we were able to find the following:

## Hypothesis 1: Effects of Cultural Differences on Memory

The product category / brand name matching task results indicated that Americans had better memory than their Chinese counterparts, irregardless of the priming and the ads backgrounds (social or asocial.) Moreover, when we compared the effects of the social and asocial backgrounds on the recall, the data did not show a significant difference ( $\mathrm{P}>0.01$.) This meant that the results from the matching task did not prove our hypothesis that Chinese . have better recollection of information when they were given a social background.

Most of the results from the recall task suggested that ethnicity affects memory; however, they supported that overall Americans had better memory of the advertisements. Nevertheless, there was one instance when the data showed otherwise. In the recall of brand names in social backgrounds, we found that Chinese remembered more of the information when primed visually and Americans remembered more when primed verbally. Not only was this the one and only result that supported Hypothesis 1, it also supported Hypothesis 2.

One interesting point to take note from the recall results was the amount of correct and incorrect matches of background / brand name, background / product category, and brand name / product category. For all matches, Americans had the higher scores for both the numbers of correct and incorrect answers. From our judgment, we attributed this to the fact that Americans tend to reveal all information they know, disregarding whether the information is accurate or not. Chinese are inclined towards only writing information they feel are correct.

## Hypothesis 2: Visual or Verbal Priming Effects on Memory

By contrasting the data on the number of remembered items from both the Chinese and American groups, and from both the visual-primed and verbal-primed groups, we have arrived at the following conclusions.

Within the verbal-primed group, the Americans have a significantly better recall rate than the Chinese ( $\mathrm{P}<0.1$.) This result is consistent through out all the recall tests on brand names, product categories and background recollections. In addition to that, we also found that the American recall results are relatively better when given asociai backgrounds. These two outcomes have proven point (d) in the second hypothesis.

Within the American subject group, we however cannot find a conclusive answer as to whether Americans remember better when primed verbally or visually. Two tests (total number of brands remembered and background / name match) gives significance level less than 0.1 , meaning that the verbally primed Americans remembered significantly better than the visually primed Americans; however, the same result is not seen in other tests. Hence, we cannot conclude positively to point (b) of the hypothesis.

We also fail to prove points (a) and (c) in our second hypothesis. Though a few results attest that Chinese recalls better when primed visually, not all test results are supportive of such a conclusion. Similarly, although the mean scores of remembrance for visually primed Chinese is higher than that of the visually primed American group, the difference is not significant enough to draw a positive conclusion to point (c).

## Summary

On one hand, our research has successfully concluded that ethnicity or culture in general does affect one's memory. In the case of commercial advertisements, Americans have a better recall ability than the Chinese participants do. On the other hand, our study has failed to resolve if human memory performance in fact can be affected by different external stimuli. Though some of our experiment results support our hypothesis, others do not. To be cautious, we shall conclude that there is no significant difference in memory when subjected to different primes.

There are a few points that we feel necessary to highlight here. The issue on Chinese acculturation, as mentioned previously, might constitute a potential error in our research. According to Singelis (1994), Asians from Asia or who are still living in their country of birth, have low scores for independence but high scores for interdependence, while the Westerners have high independence scores and low interdependence scores. Contrast to this research conclusion, our Chinese participants (mainly international students from Hong Kong and Singapore) have a relatively high independence score, while maintaining high interdependence figures. This understanding may hurt the credibility of our research, as the Chinese participants are not as "Asian" as we initially expected.

It is also to be noted that Singapore and Hong Kong are presumably the two most Westernized countries in the East (colonial backgrounds), and that in Singapore, all students receive English education since kindergarten. This may help to explain why the participants are more "Westernized" (scoring high for the independence study) than other Asians. Similarly, these undergraduate students have been living here for at least 2-3 years without their families. This could possibly explain why their independence score is not significantly
different from the American undergraduates, since both are living away from home and learning independence.

Our test result has shown that Chinese has not as good a memory as their American counterparts. However, we feel that this may not be necessary true. Given that these international students are pursuing their undergraduate degrees in a totally American environment, they have little chance to use their Chinese Language (since majority of their brain processing work would be done in the English language.) Despite a high language proficiency (almost $95 \%$ of the Chinese participants answered the open-ended recall questions in total Chinese, demonstrating a high level of language proficiency; While a lew sprinkled their responses with English terms), the lack of use and practice might have somehow impaired their Chinese language skills. This might lead to a lower recall.

In the meantime, it is also noted by a fair number of the Chinese participants that they found the brand names difficult to remember. They pointed out that these names are direct translations and they felt that these names do not 'fit' the respective product categories. It is true that all brand names are directly translated and that the brand names are generic, so as to minimize any possible correlation with the product categories. Though it is justified that the American participants had to work with the same generic names, it is possible that the names are easier to remember in English than in Chinese, given the difference in language construct. If we were to repeat the same experiment, it may be a better idea to adopt totally different brand names for the two languages chosen, so as to prevent any foreign-sounding terms.


## REFERENCES

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Morris, M.W., Nisbett, R.E., \& Peng, K.. (1995). Causal attribution across domains and cultures. Oxford: Clarendon Press.

Singelis, T.M. (1994). The measurement of independent and interdependent selfconstruals. Society for Personality and Social Psychology, 20, 580-591.

## APPENDIX

1) English Version of Questionnaire with visual priming
2) English verbal priming test
3) Chinese Version of Questionnaire with visual priming
4) Chinese verbal priming test
5) Ad prototypes set A (English)
6) Ad prototypes set B (English)
7) Data Output

## General instructions

This booklet contains five separate study tasks.

The first one is a brief, five- minute task, intended to put you in a relaxed but thinking mode before commencing the main study. Then in the main section, you will be shown copies of advertisement prototypes. Right after that, you will answer questions related to the ads that you have just been shown. Next, you will perform an intriguing mind teasing task and answer some questions that determine how representative you are of the general population.

Please read and follow instructions that will be stated before every task very carefully. If you have any questions, please raise your hand and the administrator of the study will help you. Please do NOT interrupt the study by asking your questions out loud. It is important that your comments not influence others.

Complete each page in this booklet in the order it appears. Please look up now and indicate to the administrator that you are ready; please wait for further instructions.

## Study Task:

In this task, you will be asked to make judgements about patterns. Please look below and you will find a pattern with a piece missing. Each of the small pieces at the bottom of the page is the right shape to fit the space, but do not complete the pattern. Go ahead and circle the number of the piece that completes the pattern. For example, the correct piece to complete the pattern in Question 1 is 2.


There are altogether 10 similar questions in this practice $(\mathbf{Q} .2-\mathbf{Q} .11)$ The questions are simple at first and get more difficult as you go on. If you pay attention to the way the easy ones go, you will find the later ones less difficult. Try each in turn, going from the beginning to the very end of the task.

You will be timed as you do the test. Please work as quickly as you can.

Circle the correct response.
2.

liemember, there is only one best answer.



Remember, there is only one best answer.



Remember, there is only one best answer.



圂
皿良


Remember, there is only one best answer.


fiemember, there is only one best ansuer.

8.


Remember, there is only one best answer.



Remember, there is only one best answer.


4


6



Remember, there is only one best answer.



Remember, there is only one best answer.


Now, we would like to show you 12 advertisement prototypes. These ads are sample ads for future product launch. We will be asking you questions on these products in the following section.

Please raise your hand when you are ready to begin.

DO NOT TURN THE PAGE UNITL TOLD TO DO SO

In the following section, we would like to ask you for your thoughts and feelings about the different products that you have just seen featured in the ads.

Please read the instructions carefully. Feel free to ask for clarifications at any time. It is important that you answer the questions in the order that they appear on the page. Also, please take your time in answering the as it is important for us to get as accurate a picture of your opinions as possible.

Please circle the number that corresponds to your thoughts and feelings on the following pages.

In this task, we are interested in what you can recall from the ads. In the space provided below, please try to describe as many of the ads as accurately and completely as possible. Write down any brand names or product categories that appeared in the ads, even if you are not sure about them. If you can remember only parts of the advertisements (e.g., words,) or components of pictures (e.g., sun, child, logos), please describe whatever you can recall.

Now, we would like you to tell us about any responses you had about the ads that you saw. In the space provided below, please try to describe your thoughts, feelings, and opinions about as many of the ads as possible. For example, you might describe how a particular ad made you feel, how well you liked it or what you thought about brand name, pictures featured in the ads, product design, etc. Please be very detailed in describing your responses.

In this task, we would like to find out how memorable you found each of the brand names you saw in the ads. For each pair of the product category and brand name listed below, please circle 'Yes' if you remember the brand name as having been featured in the ads that you saw; and circle 'No' if you do not remember the brand name as having been featured in the ads. It is extremely important that you do not refer back to any of the previous pages.

| 1. Metua | Camera | Yes / No |
| :--- | :--- | :--- |
| 2. Rondy | Soft Drink | Yes / No |
| 3. Zenx | Wrist Watch | Yes / No |
| 4. Derver | Color Printer | Yes / No |
| 5. Sher | Shampoo | Yes / No |
| 6. Jugue | SUV | Yes / No |
| 7. Ioda | Camera | Yes / No |
| 8. Jugue | Wrist Watch | Yes / No |
| 9. Razol | Sunglasses | Yes / No |
| 10. Ioda | Bicycle | Yes / No |
| 11 Aidia | Sunglasses | Yes / No |
| 12. Derver | Dog Food | Yes / No |

Continued on the next page.

| 13. Razol | Bottled Water | Yes / No |
| :--- | :--- | :---: | :--- |
| 14. Zenx | Bicycle | Yes / No |
| 15. Danrael | SUV | Yes / No |
| 16. Lusa | Pain Reliever | Yes / No |
| 17. Rondy | Alcohol | Yes / No |
| 18. Lusa | Soft Drink | Yes / No |
| 19. MeW | Dog Food | Yes / No |
| 20. Sher | Color Printer | Yes / No |
| 21. Aidia | Shampoo | Yes / |
| 22. Endyce | Bottled Water | Yes / No |
| 23. Endyce | Pain Reliever | Yes / No |
| 24. Danrael | Alcohol | Yes / No |

Please circle the number that you feel best reflects how you feel about these brands that were featured in the advertisements that you saw. It is extremely important that you do not refer back to any of the previous pages.

## Metua Camera

> Negative Bad
> Unfavorable

| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | Positive |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | Good |
| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | Favorable |

Jugue SUV


| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | Positive |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | Good |
| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | Favorable |

Aidia Shampoo

| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | Positive |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :--- |
| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | Good |
| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | Favorable |

Ioda Bicycle
Negative
Bad
Unfavorable

| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | Posime <br> -4 <br> -3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :--- |
| -2 | -1 | 0 | 1 | 2 | $\vdots$ | 4 | Good |  |  |
| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | Favorable |

Zenx Wriss Watch

> Negative
> Bad
> Unfavorable

| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 |
| - | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 |

Postine
Gord
Favorable

## Danrael Alcohol

| Negative | -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | Posituve |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :--- |
| Bad | -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | Good |
| Unfavorable | -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | Favorable |

## Razol Sunglasses

Negative
Bad
Unfavorable

| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | Positive |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | Good |
| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | Favorable |

Derver Dog Food
Negative
Bad
Unfavorable

Bad
Unfavorable
$\begin{array}{lllllllll}-4 & -3 & -2 & -1 & 0 & 1 & 2 & 3 & 4 \\ -4 & -3 & -2 & -1 & 0 & 1 & 2 & 3 & 4 \\ -4 & -3 & -2 & -1 & 0 & 1 & 2 & 3 & 4\end{array}$
Positive Good
Favorable

Sher Color Printer
Negative
Bad
Unfavorable

| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | Positive |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | Good |
| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | Favorable |

Endyce Bottled Water
Negative
Bad
Unfavorable

| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 |
| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 |

Positive
Good
Favorable

Lusa Pain Rehever

> Negative
> Bad

Unfavorable
$\begin{array}{lllllllll}-4 & -3 & -2 & -1 & 0 & 1 & 2 & 3 & 4 \\ -4 & -3 & -2 & -1 & 0 & 1 & 2 & 3 & 4 \\ -4 & -3 & -2 & -1 & 0 & 1 & 2 & 3 & 4\end{array}$
Positive
Good
Favorable

Rondy Sofi Drink

Negative
Bad
Unfavorable
$\begin{array}{lllllllll}-4 & -3 & -2 & -1 & 0 & 1 & 2 & 3 & 4 \\ -4 & -3 & -2 & -1 & 0 & 1 & 2 & 3 & 4 \\ -4 & -3 & -2 & -1 & 0 & 1 & 2 & 3 & 4\end{array}$

Positive Good
Favorable

## Instructions

This is a questionnaire that measures a variety of feelings and behaviors in various situations. Listed below are a number of statements. Read each one as if it is referred to you. Below each statement is a scale. Put an ' $x$ ' above the number that best matches your agreement or disagreement. Please respond to every statement. Thank you.

```
1 = STRONGLY DISAGREE
2 = DISAGREE
3 = SOMEWHAT DISAGREE
4 = DON'T AGREE OR DISAGREE
5 = AGREE SOMEWHAT
= AGREE
7 = STRONGLY AGREE
```

1. I enjoy being unique and different from others in many respects.


Strongly
Disagree
Strongly Agree
2. I feel comfortable using someone's first name soon after I meet them, even when they are much older than I am.


Strongly
Strongly
Disagree
Agree
3. Even when I strongly disagree with group members, I avoid an argument.

Strongly
Strongly
Disagree
Agree
4. I have respect for the authority figures with whom I interact.


Strongly
Disagree

Strongly
Agree
5. I do my own thing, regardless of what others think.

6. I respect people who are modest about themselves.

| 1 $\overline{2}$ $\overline{3}$ $\overline{4}$ $\overline{5}$ $\overline{6}$ | $\overline{7}$ |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Strongly |  |  |  |  |  | Strongly <br> Disagree |
|  |  |  |  |  |  |  |

7. I feel it is important for me to act as an independent person.

8. I will sacrifice my self-interest for the benefit of the group I am in.


Strongly
Strongly
Disagree
Agree
9. I'd rather say "No" directly, than risk being misunderstood.


Strongly
Disagree

Strongly
Agree
10. Having a lively imagination is important to me.


Strongly
Disagree

Strongly
Agree
11. I should take into consideration my famıly members' advice when making any life plans.

$$
F \begin{array}{llllll}
1 & 7 & 7 & F & 7 & 7
\end{array}
$$

12. I feel my fate is intertwined with the fate of those around me.

| $\overline{1}$ | $\overline{2}$ | $\overline{3}$ | $\overline{4}$ | 5 | $\overline{6}$ | $\overline{7}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Strongly |  |  |  |  |  |  |
| Disagree |  |  |  |  |  |  |

13. I prefer to be direct and forthright when dealing with people I've just met.

| $\overline{1}$ | $\overline{2}$ | $\overline{3}$ | $\overline{4}$ | $\overline{5}$ | $\overline{6}$ | $\overline{7}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Strongly |  |  |  |  |  |  |
| Disagree |  |  |  |  |  |  |

14. I feel good when I cooperate with others.
$\frac{1}{1}$
Strongly
Disagree

7
Strongly
Agree
15. I am comfortable with being singled out for praise or rewards.


Strongly
Disagree
Strongly
Agree
16. If my brother or sister fails, I feel responsible.


Strongly
Disagree

Strongly
Agree
17. I often have the feeling that my relationships with others are more important than my own accomplishments.

$$
\begin{array}{llllll}
1 & \Gamma & \square & 4 & 5 & -6
\end{array}
$$

Strongly
Disagree

Strongly
Agree
18. Speaking up during class (or a meeting) is not a problem for me.

$$
\overline{1} \mp \quad \overline{3} \quad \overline{5} \quad \overline{7}
$$

19. I would offer my seat in a bus to my professor (or my boss).
T
Strongly
Disagree
5

$\overline{7}$
Strongly
Agree
20. I act the same way no matter who I am with.

Strongly Strongly
Disagree Agree
21. My happiness depends on the happiness of those around me.


Strongly
Disagree
Strongly Agree
22. I value being in good health above everything.

$\begin{array}{ll}\text { Strongly } & \text { Strongly } \\ \text { Disagree } & \text { Agree }\end{array}$
23. I will stay in a group if they need me, even when I'm not happy with the group.

$$
\overline{1} \overline{2} \overline{3} \quad \overline{5} \quad \overline{7}
$$

Strongly
Disagree
Strongly
Agree
24. I try to do what is best for me, regardless of what others think.

25. Being able to take care of myself is a primary concem for me.
$\bar{\Gamma} \quad \overline{2} \quad 4 \quad \overline{5} \quad \frac{}{6} \quad \frac{}{7}$

Strongly
Disagree

Sirongly
Agree
26. It is important to me to respect decisions made by the group.


Strongly
Disagree

Strongly
Agree
27. My personal identity, independent of others, is very important to me.


Strongly
Disagree

Strongly Agree
28. It is important for me to maintain harmony within my group.


Strongly
Strongly
Disagree Agree
29. I act the same way at home that I do at school (work).


Strongly
Disagree

Strongl:
Agree
30. I usually go along with what others want to do, even when I would rather do something different.

$$
\begin{array}{llllll}
1 & 2 & \cdots & \cdots & 5 & 6
\end{array}
$$

Strongly
Disagree

Strongly
Agree

Thank you very much for answering the questions. Before you go, we would like to know a little bit about you. Please answer the following questions. All information provided will be kept confidential.

Gender: 1. Female 2. Male
Age: $\qquad$
Spoken English Language Fluency: 1. Very Fluent
2. Proficient
3. Fair

Is English your First language / Mother tongue? Yes / No
Number of years of Formal English Education : $\qquad$ years
Do you speak any other languages? Yes / No If yes, please list them all here.

## Study Task

This task is intended to refresh your mind and put you in a relaxed but thinking mode before beginning the main study.

Below you will find 3 words which are followed by 10 blank lines. For each word, try to write down 10 words of 3 or more letters that can be formed from the letters of the word. For example, if the word "maintenance" was presented below, 5 of the words you form might be: main, ten, aim, team, cat. Be sure you see how each of these words might be formed from the word "maintenance."

Now try to identify 10 words that can be formed from the words presented below. Remember that all words must be composed of 3 or more letters. Please try to come up with 10 words for each word but regardless of whether you do so, DO NOT SPEND MORE THAN 5 MINUTES ON THIS ENTIRE TASK. Please work as quickly as possible.

> inflammatory
environmental
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
complimentary
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

## 説明

## 本册子内共分五個部分。

第一部分是一個簡單的頭腦骾操，主要是裹你先輕鬎一下，活勤活動腦筋。在正式的問卷調查開始前，我們會讓你看一些平面廣告的様板。之後，我們會請你回答一些有關這些廣告的問題。在你完成這些問答後，我們也逥將向你收集一些有關你個人的看法和想法。

在你開始回答問题以前，請務必仔細閲讀所有的指示。如有疑問，請舉手。負賣的同舉會盡量常助你解決問题。在調查進行期間，請不要大聲喧嘩，以免打拯其他的參加者。

請依順序完成這份問巻。現在，請抬頭，向前看，謞負責同學知道你已準備好，能開始作答了。

## 練習：

在以下練習中，每一個圖案都缺少了一小塊。在每一個回案下，有六塊䛛案的組成部分，其中之一是和回案中短缺的那小塊相吻合的。你的任務就是從寈六塊中選出可以正確完成圖案的那一小塊，並在相應的號碼上蕙圈。例如第一题：正確答案是 2 ，所以要在 2 上愠橉。


本部分的練習中共有十道類似第一题的题目（Q2－Q11）難度將會逐题增加－為了虽你逐渐署慣這類題目，請從前面開始做起。我們會為每位参加者計時。請盡量滅少花在每一题上的時間。

在負責人未給予指示前，請不要自行翻閲题目。你必須在負責人給予指示後，才可開始做題。

請膡出正確答案的號碼。注意：請選出最適當的答案。

請圈出正確答案的號碼－注意：請選出曾適畄的答罙。


笭


第湦


請圈出正確答案的號碼。注意：講選出是適當的答案。


4.


請膡出正確答案的號碼－注意：請選出最適當的答案。


第㗝：


革浱



請觠出正確答案的號碼。注意：請選出最適當的答案。


第选题


請圈出正確答案的號碼－注意：請選出最適當的答案。


第号腚


請圈出正確答案的號碼－注意：請選出最適當的答案。


9.


請圈出正確答案的號碼－注意：請選出最適當的答案。


第䗎


請圈出正確答案的號碼。注意：請選出晅適當的答案。


第 + －是


請圈出正確答案的號碼。注意：請選出最適䓨的答案。


現在，我們將諪你看 12 個平面廣告版。我們主要是想知道你對這些廣告，廣告中的産品，産品牌子等等有何看法。這些廣告都是為了下一季的産品推銷而設計的。在看完這些廣告後，我們將會針對這些廣告對你提出問題。所以，請仔細䚑：＂這些慈板

在接下來的兩道問答題中，我們主要是想發掘大眾對遁些産品所可能産生的反應。這些問題並没有標準答案。所以請别顀慮你的答案是對或是錯。

在開始回答問題前，請仔細関声問題的指示。如有任何不清楚的地方 －請䰇手發問。同時，請盡量回答所有的問題。

你所有的看法和意見都是贯貴的。

在這一項目中，我們想知道你能記住多少有關你剛剛看過的平面廣告。請在下方的空格上，典你所能地，回想並形容你剛才看過的廣告。寫下你所能記得的任何内容，如在廣告中出現過的産品和産品品牌等等。如果你只能記住其中的一小部分（如：廣告背景或圖案），也請你把它寫下來。任何你所能婄得的，請你都寫下來。

現在，請蓝你所能的，將你剛才在看廣告（任何一篇廣告）所産時所産生的各種看法，想法或意見鳥在下方的空格内。所涉及的廣告越多，就越好 －例如，你可形容你在看到其中一篇廣告時的第一反㢈；或者，你可對某屚廣告的設計發表看法 ：又或者，你可寫下你對某個牌子的意見。請仔細地形容你所有的觀後感。

在以下各題中，請指出該對産品和品名是否和你在廣告中所見的一㥞


| 1．美湍 | 照相機 | 是／否 |
| :--- | :--- | :--- |
| 2．德凡 | 打印機 | 是／否 |
| 3．尚 | 洗髪精 | 是／否 |
| 4．九谷 | 吉普車 | 是／否 |
| 5．幽達 | 照相機 | 是／否 |
| 6．九谷 | 腕表 | 是／否 |
| 7．拉棕 | 太陽眼鏡 | 是／否 |
| 8．尚 | 打印機 | 是／否 |
| 9．隆氐 | 汽水 | 是／否 |
| 10．幽達 | 自行車 | 是／否 |
| 11．艾迪亞 | 太陽眼鏡 | 是／否 |
| 12．德凡 | 狗食 | 是／否 |


| 13．拉棕 | 磺泉水 | 是／否 |
| :---: | :---: | :---: |
| 14．善狄士 | 自行車 | 是／否 |
| 15．鹿紗 | 止痡劑 | 是／否 |
| 16．隆氏 | 洋酒 | 是／否 |
| 17．鹿紗 | 汽水 | 是／否 |
| 18．美湍 | 狗食 | 是／否 |
| 19．艾迪亞 | 洗髭精 | 是／否 |
| 20．丹萊爾 | 吉普車 | 是／否 |
| 21．安帝思 | 磺泉水 | 是／否 |
| 22．善狄士 | 腕表 | 是／否 |
| 23．安帝思 | 止痛剂 | 是／否 |
| 24．丹苯爾 | 洋酒 | 是／否 |

## 請圈出最能代表你對剛才所看的黃告的想法的數字。請注意，

## 壬萬不可翻閲或參考前頁。

## 美湍照相椦

消極的<br>环的<br>不宜的

| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 積極的 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 好的 |
| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 有利的 |

九谷吉普龺

消極的
坏的
不宜的

| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 積極的 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 好的 |
| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 有利的 |

艾迪亞洗髪精

| 消極的 | -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 栍極的 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :--- |
| 坏的 | -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 好的 |
| 不宜的 | -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 有利的 |

幽達自行車
消極的
坏的
不宜的

| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 積極的 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 好的 |
| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 有利的 |

## 善狄士腕表

消極的
坏的不宣的

| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 積極的 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 好的 |
| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 有利的 |

丹英碚洋酒

消極的
坏的
不宣的
$\begin{array}{llllll}-4 & -3 & -2 & -1 & 0 & 1\end{array}$
$\begin{array}{lllllllll}-4 & -3 & -2 & -1 & 0 & 1 & 2 & 3 & 4 \\ -4 & -3 & -2 & -1 & 0 & 1 & 2 & 3 & 4\end{array}$

積極的
好的
有利的

## 拉棕太锑眼鏡

| 消極的 | -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 積極的 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :--- |
| 坏的 | -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 好的 |
| 不宣的 | -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 有利的 |

谣凡狗食

消極的
坏的不宜的

| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 |
| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 |

積極的
好的
有利的

的的彩色打印言
消極的
坏的
不宜的

| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 積極的 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 好的 |
| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 有利的 |

安帝思顔完对
消極的
坏的
不宣的

鹿紗红痛逃

消極的
坏的
不宜的

$$
\begin{array}{llllllll}
-4 & -3 & -2 & -1 & 0 & 1 & 2 & 3
\end{array}
$$

積極的
好的
有利的

壁氏汽水


| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 積極的 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 好的 |
| -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 有利的 |

指引
适問巻是用來勫量個人任不同倩況下，所產生的各種情緒和行紴。假設以下的每一項問題，也是爲查問你的資料而設。請依㨽你個人的资料，在量度表上選出一個最合適的數字，䀂上X符號。多謝合作！

在眾多重要的事項中，我喜歡突出自己和表現自已乃與潨不同。

$$
\begin{array}{lllll}
\overline{1} \\
\overline{2} & \overline{2} & \overline{3} & \overline{4} & \overline{6} \\
\hline
\end{array} \overline{7}
$$

2．對於初相識的人，即使他們比我年長，稱呼他們的名字，我覺得比較舒服和有親切感。

$$
\begin{aligned}
& 1 \\
& \hline
\end{aligned} \overline{3} \overline{4} \overline{5} \overline{7} \overline{7}
$$

3．雖然我對大夥兒的意見極不贊同，但我也會避兔與他們爭論。

$$
\overline{1} \overline{2} \overline{3} \overline{4} \overline{5} \overline{7}
$$

柜之反至
血之製同

4．我對所認識的權貴人物都十分尊重。

$$
\begin{aligned}
& \begin{array}{llllll}
1 & \overline{2} & \overline{3} & \overline{4} & \overline{6} & 7
\end{array} \\
& \text { 栕之反 }
\end{aligned}
$$

$$
\begin{aligned}
& 1 \text { = 極之反對 } \\
& 2 \text { =反對 } \\
& 3 \text { = 稍爲反對 } \\
& 4 \text { = 沒有意見 } \\
& 5 \text { = 稍爲贊同 } \\
& 6=\text { 贊 同 } \\
& 7 \text { = 極之贊同 }
\end{aligned}
$$

5．我處事的方法向來也是我行我素，從不理會別人的想法。

6．我尊敬删些謙虛的人士。

$$
\begin{aligned}
& \overline{1} \\
& \text { 里之反对 }
\end{aligned} \overline{3} \overline{4} \overline{5} \overline{6} \overline{7}
$$

7．我認爲自立對我來說是很重要。


医之反时
西之同
8．我會爲了顧及集體的利益而檥牲個人的興趣。
$\overline{1} \overline{2} \overline{3} \overline{5} \overline{6} \overline{7}$
諂之反誈
弫之成

9．我筞願直接地說＂不＂，也不想冒被誤會之險。

10．有一個靈活而富想像力的頭腦，對我來說是很重要。 $\overline{1} \overline{2} \overline{3} \overline{5} \overline{6} \frac{7}{7}$吥之反时明之同

11．當我要作人生決策時，我一定會参考家人所給我的提示。
$\overline{1} \overline{2} \overline{3} \overline{4} \overline{6} \overline{7}$
西之反时

$$
\begin{aligned}
& \begin{array}{llllll}
1 & \overline{2} & \overline{3} & -4 & \overline{5} & \overline{7}
\end{array}
\end{aligned}
$$

$$
\begin{aligned}
& \overline{1} \overline{2} \quad \overline{3} \quad \overline{5} \quad \overline{6} \quad \overline{7} \\
& \text { 国々反时 㮔之間 }
\end{aligned}
$$

12．我認爲個人的命運是會受外界環境及人際間的關係所影翌。

$$
\begin{aligned}
& 1 \\
& \hline
\end{aligned} \overline{3} \quad \overline{4} \quad \overline{5} \quad \overline{6} \quad \overline{7}
$$

13．我喜歡對新相識的人採取直接和坦率的態度。


區之反璟
匠之周同
14．我認爲與他人合作做事，乃是一件樂事。

$$
\begin{aligned}
& \overline{1} \quad \overline{2} \quad \overline{3} \quad \overline{5} \quad \overline{6} \quad \overline{7} \\
& \text { 明之反星 }
\end{aligned}
$$

15．我樂意接受別人對我的稱㩌和獎賞。

$$
\begin{aligned}
& \begin{array}{llllll}
1 & \overline{2} & \overline{3} & \overline{4} & \overline{6} & \overline{7}
\end{array} \\
& \text { 缕之反星 } \\
& \text { (6) }
\end{aligned}
$$

16．對於兄弟姊妹的失敗，我認鵎自己應該負責。
$\overline{1} \overline{2} \quad \overline{3} \quad \overline{5} \quad \overline{6} \quad \overline{7}$
酔之反时

17．我經常貿得與剧人建立良好的關係較個人的成就重要。
$\overline{1} \overline{2} \quad \overline{3} \quad \overline{5} \quad \overline{6} \quad \overline{7}$

18．在課堂上或在會議中發言，對我來說不是一件困難的事。
19. $£ \mathrm{E} \pm \pm\left|\mathrm{fc} \# \mathrm{i}^{*}{ }^{*} \mathrm{ftj} £ \mathrm{aft} 8 \mathrm{rjg}\right| \mathrm{g}_{ \pm} \mathrm{H}$, .

$$
\underset{\sim}{1} \overline{2} \overline{3} \cdot \overline{\sim 4} \overline{5} \overline{6}^{-}
$$



$$
\sim 234 \quad 5 \quad 6 \quad 7 \sim
$$

21. MAf1'^f 'ati2€I(f'^^.

$$
\begin{array}{lllllll}
" & 2 & 3 & 4 & 5 & 6 & 7 "
\end{array}
$$

## 22. $m \% z n m m t t i f f f i m w m w$

$$
2 \quad r-4 \quad r \quad{ }^{\prime} 6 \quad r
$$

\& *? sfr fte fn ${ }^{\circ}$
${ }^{24}-\mathrm{Sf} 225 ? \mathrm{~S}^{\wedge} \mathrm{e} \cdot \mathrm{fc} » \&-\mathrm{ft}^{*} \mathrm{Si}^{*} \ll \mathrm{ft} \& \mathrm{~A}>$ \& if \#tf $\mathrm{I}^{*} £ \mathrm{ft}$ •
25. i i ^ e ilg B-Itll^^Jlf=

$$
\underset{s: \wedge}{1} \sim 23^{2}
$$

26．我很䊈重群體的決定。


27．我很重視建立自己與潨人間不同的獨特風格。

$$
\begin{aligned}
& \overline{1} \overline{2} \overline{3} \overline{4} \overline{6} \overline{7} \\
& \text { 画之反时 } \\
& \text { 画之開 }
\end{aligned}
$$

28．我很重視人與人間的和諧關係。


29．我在學校和在家裏，言行也一致。


30．我通常曾因順應別人的意願去爲他們做事，而擱置了自己想做的事情。

$$
\begin{aligned}
& \overline{1} \quad \overline{2} \quad \overline{3} \quad \overline{4} \quad \overline{5} \quad \overline{6} \quad 7
\end{aligned}
$$

$$
\begin{aligned}
& \text { 灭之同同 }
\end{aligned}
$$

非常感謝你參加這次的問卷調查。以下各題是為了在做分析時作為参考之用。所有收集到的资料將會故格的保密。再一次謝謝你參加這份研究做答。謝謝。

性别：1．女 2．男
年齡：
$\begin{array}{ll}\text { 中文水平：} & \text { 1．精通 } \\ & \text { 2．流利 } \\ \text { 3．尚可 }\end{array}$
中文是你的第一語言或母語嗎？是／否
請問你受過幾年正式的中文教育？ $\qquad$年

請問你是否摆會其他語言？
是／否
如是，請一一列出。

練署：
這是一項簡單的頭腦體操，意圖是讓你在正式開始回答問題前，稍稍地運動一下腦筋。所以請你提起精神，放㢦心情開始吧！

在以下每一個漢字部首下，有十個空行。請你利用各個部首分别寫出十個熯字。例如：＂火＂字部。以＂火＂為偏旁的字有：燃，梀，熱，漫，燒，煨，㽢，炒等等 －這項練習共計時五分鐘。請在這五分鐘内，盡量寫出你所知道的，以＂木＂，＂女＂，＂水＂為偏旁的漢字。

## ⽊

女
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$\qquad$
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Ad Prototype Set A



|  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | $\text { - } 111.1 \times 0$ |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | $11$ |  |  |  |  |








上, ox,
Sports Utility Vehic

Sher



Ad Prototype Set B
/--





## endvce

Bottled Water









```
cross-cultural indep study - ethnic:l=english, 2=chinese
    Class Level Information
Class Levels Values
PRIMINGT 22
\begin{tabular}{lll} 
ETHNIC & 2
\end{tabular}

Number of observations in data set \(=53\)
\(\left.\begin{array}{ccl}\text { Group } & \text { Obs } & \text { Dependent Variables } \\ 1 & 53 & \text { INDEPSC RECOGCRI RECOGFIL RECOGTOT SOCIAL NOSOCIAL SOCBKDIF AVGATTC AVGATTF } \\ & & \text { AVGATTT WORDS ENGWORD ADTTL ADTTLFIL ADTTLSOC ADINCOR CATTL CATTLFIL CATTLSOC } \\ & & \text { CATINCO BRATTL BRAFIL BRASOC BRAINCOR BNCOR BNINCOR BCCOR BCINCOR NCCOR NCINCOR }\end{array}\right]\)

NOTE: Variables in each group are consistent with respect to the presence or absence of missing values.
```

cross-cultural indep study - ethnic:l=english, 2=chinese
08:55 Tuesday, April 20, 1999
General Linear Models Procedure

```

Dependent Variable: INDEPSC
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Source & DF & Sum of Squares & Mean Square & F & Value & \(\mathrm{Pr}>\mathrm{F}\) \\
\hline Model & 3 & 82.70229456 & 27.56743152 & & 0.35 & 0.7924 \\
\hline Error & 49 & 3907.82600733 & 79.75155117 & & & \\
\hline \multirow[t]{2}{*}{Corrected Total} & 52 & 3990.52830189 & & & & \\
\hline & & \[
\begin{gathered}
C . V \\
12.38706
\end{gathered}
\] & Root MSE
\[
8.93037240
\] & \multicolumn{3}{|r|}{INDEPSC Mean
\[
72.09433962
\]} \\
\hline Source & DF & Type I SS & Mean Square & F & Value & \(\operatorname{Pr}>\mathrm{F}\) \\
\hline PRIMINGT & 1 & 6.74625060 & 6.74625060 & & 0.08 & 0.7724 \\
\hline ETHNIC & 1 & 0.68559034 & 0.68559034 & & 0.01 & 0.9265 \\
\hline PRIMINGT*ETHNIC & 1 & 75.27045361 & 75.27045361 & & 0.94 & 0.3361 \\
\hline Source & DF & Type III SS & Mean Square & F & Value & \(\mathrm{Pr}>\mathrm{F}\) \\
\hline PRIMINGT & 1 & 5.57861071 & 5.57861071 & & 0.07 & 0.7925 \\
\hline ETHNIC & 1 & 1.02271948 & 1.02271948 & & 0.01 & 0.9103 \\
\hline PRIMINGT*ETHNIC & 1 & 75.27045361 & 75.27045361 & & 0.94 & 0.3361 \\
\hline Contrast & DF & Contrast SS & Mean Square & \(F\) & Value & \(\mathrm{Pr}>\mathrm{F}\) \\
\hline vis vs ver w/in eng & 1 & 62.23219373 & 62.23219373 & & 0.78 & 0.3814 \\
\hline vis vs ver w/in chin & 1 & 19.52014652 & 19.52014652 & & 0.24 & 0.6230 \\
\hline eng vs chin w/in vis & 1 & 45.94871795 & 45.94871795 & & 0.58 & 0.4515 \\
\hline eng vs chin w/in ver & 1 & 30.00732601 & 30.00732601 & & 0.38 & 0.5424 \\
\hline \multicolumn{7}{|r|}{\(\begin{aligned} & \text { cross-cultural indep study - ethnic:1=english, } 2=\text { chinese } 3 \\ & 08: 55 \text { Tuesday, April 20, } 1999\end{aligned}\)} \\
\hline
\end{tabular}

\section*{Dependent Variable: RECOGCRI}
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Source & DF & Sum of Squares & Mean Square & \multicolumn{2}{|r|}{\multirow[t]{4}{*}{Value
\[
24.05
\]}} & \multirow[t]{3}{*}{\[
\begin{aligned}
& \mathrm{Pr}>\mathrm{F} \\
& 0.0001
\end{aligned}
\]} \\
\hline Model & 3 & 299.00221162 & 99.66740387 & & & \\
\hline Error & 49 & 203.07326007 & 4.14435225 & & & \\
\hline Corrected Total & 52 & 502.07547170 & & & & \\
\hline & \[
\begin{gathered}
\text { R-Square } \\
0.595532
\end{gathered}
\] & \[
\begin{gathered}
\text { C.V. } \\
25.87427
\end{gathered}
\] & Root MSE
\[
2.03576822
\] & \multicolumn{3}{|r|}{RECOGCRI Mean 7.86792453} \\
\hline Source & DF & Type I SS & Mean Square & F & Value & \(\mathrm{Pr}>\mathrm{F}\) \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|}
\hline PRIMINGT & 1 & 0.96008708 & 0.96008708 & 0.23 & 0.6324 \\
\hline ETHNIC & 1 & 288.99842303 & 288.99842303 & 69.73 & 0.0001 \\
\hline PRIMINGT*ETHNIC & 1 & 9.04370152 & 9.04370152 & 2.18 & 0.1460 \\
\hline Source & DF & Type III SS & Mean Square & F Value & \(\mathrm{Pr}>\mathrm{F}\) \\
\hline PRIMINGT & 1 & 3.54521209 & 3.54521209 & 0.86 & 0.3596 \\
\hline ETHNIC & 1 & 286.71137523 & 286.71137523 & 69.18 & 0.0001 \\
\hline PRIMINGT*ETHNIC & 1 & 9.04370152 & 9.04370152 & 2.18 & 0.1460 \\
\hline Contrast & DF & Contrast SS & Mean Square & F Value & Pr \(>\mathrm{F}\) \\
\hline vis vs ver w/in eng & 1 & 12.21509972 & 12.21509972 & 2.95 & 0.0923 \\
\hline vis vs ver w/in chin & 1 & 0.61904762 & 0.61904762 & 0.15 & 0.7008 \\
\hline eng vs chin w/in vis & 1 & 94.94871795 & 94.94871795 & 22.91 & 0.0001 \\
\hline eng vs chin w/in ver & 1 & 203.09340659 & 203.09340659 & 49.00 & 0.0001 \\
\hline \multicolumn{6}{|r|}{cross-cultural indep study - ethnic:l=english, 2=chinese 4} \\
\hline
\end{tabular}

Dependent Variable: RECOGFIL


Dependent Variable: RECOGTOT



General Linear Models Procedure
Dependent Variable: SOCIAL


Dependent Variable: NOSOCIAL


Dependent Variable: SOCBKDIF
\begin{tabular}{lrrrrr} 
Source & DF & Sum of Squares & Pr \\
Model & 3 & 1.94410464 & Mean Square & 0.64803488 \\
Error & 49 & 281.86721612 & 0.75239217 \\
Corrected & Total & 52 & 283.81132075 &
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline \multicolumn{2}{|r|}{\[
\begin{aligned}
& \text { R-Square } \\
& 0.006850
\end{aligned}
\]} & \[
\begin{array}{r}
\text { C.V. } \\
977.8151
\end{array}
\] & \[
\begin{array}{r}
\text { Root MSE } \\
2.39841451
\end{array}
\] & \multicolumn{3}{|r|}{SOCBKDIF Mean
\[
0.24528302
\]} \\
\hline Source & DF & Type I SS & Mean Square & F & Value & Pr > F \\
\hline PRIMINGT & 1 & 0.19878514 & 0.19878514 & & 0.03 & 0.8533 \\
\hline ETHNIC & 1 & 0.55837074 & 0.55837074 & & 0.10 & 0.7567 \\
\hline PRIMINGT*ETHNIC & 1 & 1.18694875 & 1.18694875 & & 0.21 & 0.6517 \\
\hline Source & DF & Type III SS & Mean Square & F & Value & \(\mathrm{Pr}>\mathrm{F}\) \\
\hline PRIMINGT & 1 & 0.26075108 & 0.26075108 & & 0.05 & 0.8323 \\
\hline ETHNIC & 1 & 0.59307737 & 0.59307737 & & 0.10 & 0.7495 \\
\hline PRIMINGT*ETHNIC & 1 & 1.18694875 & 1.18694875 & & 0.21 & 0.6517 \\
\hline Contrast & DF & Contrast SS & Mean Square & F & Value & \(\mathrm{Pr}>\mathrm{F}\) \\
\hline vis vs ver w/in eng & 1 & 0.17114367 & 0.17114367 & & 0.03 & 0.8638 \\
\hline vis vs ver w/in chin & 1 & 1.25366300 & 1.25366300 & & 0.22 & 0.6427 \\
\hline eng vs chin w/in vis & 1 & 1.69322344 & 1.69322344 & & 0.29 & 0.5899 \\
\hline eng vs chin w/in ver & 1 & 0.05209605 & 0.05209605 & & 0.01 & 0.9246 \\
\hline & S- & study - et & \begin{tabular}{l}
h, 2=chinese \\
08:55 Tue
\end{tabular} & & April & \[
\begin{array}{r}
9 \\
1999
\end{array}
\] \\
\hline
\end{tabular}

Dependent Variable: AVGATTC


Dependent Variable: AVGATTF
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Source & DF & Sum of Squares & Mean Square & \multirow[t]{4}{*}{F} & \multirow[t]{4}{*}{\[
\begin{array}{r}
\text { F Value } \\
1.33
\end{array}
\]} & \multirow[t]{3}{*}{\[
\begin{aligned}
& \mathrm{Pr}>\mathrm{F} \\
& 0.2741
\end{aligned}
\]} \\
\hline Model & 3 & 4.61477999 & 1.53826000 & & & \\
\hline Error & 49 & 56.50198684 & 1.15310177 & & & \\
\hline Corrected Total & 52 & 61.11676683 & & & & \\
\hline & \[
\begin{aligned}
& \text { R-Square } \\
& 0.075508
\end{aligned}
\] & \[
\begin{array}{r}
\text { C.V. } \\
141.6132
\end{array}
\] & \[
\begin{array}{r}
\text { Root MSE } \\
1.07382576
\end{array}
\] & \multicolumn{3}{|r|}{AVGATTF Mean
0.75828092} \\
\hline Source & DF & Type I SS & Mean Square & F & Value & \(\mathrm{Pr}>\mathrm{F}\) \\
\hline PRIMINGT & 1 & 0.00148509 & 0.00148509 & & 0.00 & 0.9715 \\
\hline ETHNIC & 1 & 2.61033438 & 2.61033438 & & 2.26 & 0.1389 \\
\hline PRIMINGT*ETHNIC & 1 & 2.00296052 & 2.00296052 & & 1.74 & 0.1936 \\
\hline Source & DF & Type III SS & Mean Square & F & Value & \(\mathrm{Pr}>\mathrm{F}\) \\
\hline PRIMINGT & 1 & 0.01011536 & 0.01011536 & & 0.01 & 0.9258 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{ETHNIC} & \multirow[t]{2}{*}{1} & 2.51337149 & 2.51337149 & & 2.18 & 0.1462 \\
\hline & & 2.00296052 & 2.00296052 & & 1.74 & 0.1936 \\
\hline \multirow[t]{2}{*}{PRIMINGT*ETHNIC} & \multirow[t]{2}{*}{1} & & & & & \\
\hline & & Contrast SS & Mean Square & F & Value & Pr \\
\hline Contrast & DF & & 1.17369936 & & 1.02 & 0.3180 \\
\hline vis vs ver w/in eng & 1 & -84630037 & 0.84630037 & & 0.73 & 0.3958 \\
\hline vis vs ver w/in chin & 1 & 01416768 & 0.01416768 & & 0.01 & 0.9122 \\
\hline eng vs chin w/in vis & 1 & . 59912721 & 4.59912721 & & 3.99 & 0.0514 \\
\hline eng vs chin w/in ver & & study - et & \[
2=\text { chinese }
\]
08:55 Tue & & Apr & + 1999 \\
\hline
\end{tabular}

General Linear Models Procedure
Dependent Variabile: AVGATTT
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Source & DF & Sum of Squares & Mean Square & F & Value & \(\mathrm{Pr}>\mathrm{F}\) \\
\hline Model & 3 & 6.24972284 & 2.08324095 & & 3.19 & 0.0316 \\
\hline Error & 49 & 31.99042274 & 0.65286577 & & & \\
\hline \multirow[t]{2}{*}{Corrected Total} & 52 & 38.24014559 & & & & \\
\hline & \[
\begin{gathered}
\text { R-Square } \\
0.163434
\end{gathered}
\] & \[
\begin{array}{r}
C . V . \\
87.72426
\end{array}
\] & \[
\begin{array}{r}
\text { Root MSE } \\
0.80800110
\end{array}
\] & \multicolumn{3}{|r|}{AVGATTT Mean
0.92106918} \\
\hline Source & DF & Type I SS & Mean Square & F & Value & \(\mathrm{Pr}>\mathrm{F}\) \\
\hline PRIMINGT & 1 & 0.51780466 & \(0 . .51780466\) & & 0.79 & 0.3775 \\
\hline ETHNIC & 1 & 3.70121557 & 3.. 70121557 & & 5.67 & 0.0212 \\
\hline PRIMINGT*ETHNIC & 1 & 2.03070262 & 2.03070262 & & 3.11 & 0.0840 \\
\hline Source & DF & Type III SS & letm Square & F & Value & \(\mathrm{Pr}>\mathrm{F}\) \\
\hline PRIMINGT & 1 & 0.63635235 & 0.. 63635235 & & 0.97 & 0.3284 \\
\hline ETHNIC & 1 & 3.58453780 & 3.. 58453780 & & 5.49 & 0.0232 \\
\hline PRIMINGT*ETHNIC & 1 & 2.03070262 & 2.. 03070262 & & 3.11 & 0.0840 \\
\hline Contrast & DF & Contrast SS & :e;in Square & F & Value & \(\mathrm{Pr}>\mathrm{F}\) \\
\hline vis vs ver w/in eng & 1 & 2.52366648 & 2.. 52366648 & & 3.87 & 0.0550 \\
\hline vis vs ver w/in chin & 1 & 0.19268420 & \(0 . .19268420\) & & 0.30 & 0.5894 \\
\hline eng vs chin w/in vis & 1 & 0.10736334 & \(0 . .10736334\) & & 0.16 & 0.6869 \\
\hline eng vs chin w/in ver & 1 & 5.62455484 & 5.. 62455484 & & 8.62 & 0.0051 \\
\hline \multicolumn{2}{|l|}{cross-cultural indep} & dep study - et & , \(\begin{aligned} & 2=\text { chinese } \\ & 08: 55\end{aligned}\) & 08:55 Tuesday, & , Apri & 12
0,1999 \\
\hline
\end{tabular}

Dependent Variable: WORDS


Dependent Variable: ENGWORD
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Source & DF & Sum of Squares & Mean Square & \multirow[t]{4}{*}{F} & Value & \multirow[t]{2}{*}{\[
\begin{gathered}
\mathrm{Pr}>\mathrm{F} \\
0.0001
\end{gathered}
\]} \\
\hline Model & 3 & 52918.98199599 & 17639.66066533 & & 20.67 & \\
\hline Error & 49 & 41806.71611722 & 853.19828811 & & & \\
\hline Corrected Total & 52 & 94725.69811321 & & & & \\
\hline \multicolumn{2}{|r|}{\[
\begin{aligned}
& \text { R-Square } \\
& 0.558655
\end{aligned}
\]} & \[
\begin{array}{r}
C . V . \\
78.78405
\end{array}
\] & Root MSE
\[
29.20955816
\] & \multicolumn{3}{|r|}{ENGWORD Mean
\[
37.07547170
\]} \\
\hline Source & DF & Type I SS & Mean Square & F & Value & \(\mathrm{Pr}>\mathrm{F}\) \\
\hline PRIMINGT & 1 & 63.32916734 & 63.32916734 & & 0.07 & 0.7864 \\
\hline ETHNIC & 1 & 52383.33463426 & 52383.33463426 & & 61.40 & 0.0001 \\
\hline PRIMINGT*ETHNIC & 1 & 472.31819439 & 472.31819439 & & 0.55 & 0.4604 \\
\hline Source & DF & Type III SS & Mean Square & F & Value & \(\mathrm{Pr}>\mathrm{F}\) \\
\hline PRIMINGT & 1 & 421.15203125 & 421.15203125 & & 0.49 & 0.4856 \\
\hline ETHNIC & 1 & 52149.78043004 & 52149.78043004 & & 61.12 & 0.0001 \\
\hline PRIMINGT*ETHNIC & 1 & 472.31819439 & 472.31819439 & & 0.55 & 0.4604 \\
\hline Contrast & DF & Contrast SS & Mean Square & F & Value & Pr \\
\hline vis vs ver w/in eng & 1 & 91202462352 & 912.02462352 & & 1.07 & 03063 \\
\hline vis vs ver w/in chin & 1 & 0.71794872 & 0.71794872 & & 0.00 & 0.9770 \\
\hline eng vs chin w/in vis & 1 & 20905.93772894 & 20905.93772894 & & 24.50 & 0.0001 \\
\hline \multicolumn{2}{|l|}{\multirow[t]{2}{*}{eng vs chin w/in ver cross-cul}} & 31949.71509972 & 31949.71509972 & & 37.45 & 0.0001 \\
\hline & & ndep study - et & \multicolumn{2}{|l|}{08:55 Tuesday} & \multicolumn{2}{|l|}{, April 20, 1999} \\
\hline
\end{tabular}

Dependent Variable: ADTTL


Dependent Variable: ADTTLFIL
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Source & DF & Sum of Squares & Mean Square & \multirow[t]{4}{*}{F} & Value & \multirow[t]{2}{*}{\[
\begin{gathered}
\mathrm{Pr}>F \\
0.6604
\end{gathered}
\]} \\
\hline Model & 3 & 4.79637501 & 1.59879167 & & 0.54 & \\
\hline Error & 49 & 146.41117216 & 2.98798311 & & & \\
\hline Corrected Total & 52 & 151.20754717 & & & & \\
\hline & \[
\begin{gathered}
\text { R-Square } \\
0.031720
\end{gathered}
\] & \[
\begin{array}{r}
\text { C.V. } \\
69.93485
\end{array}
\] & Root MSE
\[
1.72857835
\] & & ADTTLFIL Mean & \[
\begin{aligned}
& \text { L Mean } \\
& 7169811
\end{aligned}
\] \\
\hline Source & DF & Type I SS & Mean Square & F & Value & \(\mathrm{Pr}>\mathrm{F}\) \\
\hline PRIMINGT & 1 & 0.80441327 & 0.80441327 & & 0.27 & 0.6062 \\
\hline
\end{tabular}


Dependent Variable: ADTTLSOC
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Source & DF & Sum of Squares & Mean Square & F & Value & Pr \(>\mathrm{F}\) \\
\hline Model & 3 & 4.41131039 & 1.47043680 & & 0.48 & 0.6982 \\
\hline Error & 49 & 150.34340659 & 3.06823279 & & & \\
\hline \multirow[t]{2}{*}{Corrected Total} & 52 & 154.75471698 & & & & \\
\hline & & \[
\begin{array}{r}
C . V \\
53.35447
\end{array}
\] & Root MSE
\[
1.75163717
\] & \multicolumn{3}{|r|}{ADTTLSOC Mean
\[
3.28301887
\]} \\
\hline Source & DF & Type I SS & Mean Square & F & Value & \(\mathrm{Pr}>\mathrm{F}\) \\
\hline PRIMINGT & 1 & 0.03107026 & 0.03107026 & & 0.01 & 0.9203 \\
\hline ETHNIC & 1 & 2.44203257 & 2.44203257 & & 0.80 & 0.3767 \\
\hline PRIMINGT*ETHNIC & 1 & 1.93820756 & 1.93820756 & & 0.63 & 0.4306 \\
\hline Source & DF & Type III SS & Mean Square & F & Value & \(\mathrm{Pr}>\mathrm{F}\) \\
\hline PRIMINGT & 1 & 0.08667541 & 0.08667541 & & 0.03 & 0.8672 \\
\hline ETHNIC & 1 & 2.53380532 & 2.53380532 & & 0.83 & 0.3679 \\
\hline PRIMINGT*ETHNIC & 1 & 1.93820756 & 1.93820756 & & 0.63 & 0.4306 \\
\hline Contrast & DF & Contrast SS & Mean Square & F & Value & Pr \(>\mathrm{F}\) \\
\hline vis vs ver w/in eng & 1 & 0.61558812 & 0.61558812 & & 0.20 & 0.6562 \\
\hline vis vs ver w/in chin & 1 & 1.39285714 & 1.39285714 & & 0.45 & 0.5036 \\
\hline eng vs chin w/in vis & 1 & 4.35989011 & 4.35989011 & & 1.42 & 0.2390 \\
\hline eng vs chin w/in ver & 1 & 0.02035002 & 0.02035002 & & 0.01 & 0.9354 \\
\hline \multicolumn{7}{|r|}{} \\
\hline
\end{tabular}

Dependent Variable: ADINCOR



Dependent Variable: CATTL
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Source & DF & Sum of Squares & Mean Square & F & Value & \(\mathrm{Pr}>\mathrm{F}\) \\
\hline Model & 3 & 34.19959914 & 11.39986638 & & 2.35 & 0.0837 \\
\hline Error & 49 & 237.61172161 & 4.84921881 & & & \\
\hline \multirow[t]{3}{*}{Corrected Total} & 52 & 271.81132075 & & & & \\
\hline & R -Square & C.V. & Root MSE & \multicolumn{3}{|r|}{CATTL Mean} \\
\hline & 0.125821 & 30.39349 & 2.20209419 & \multicolumn{3}{|r|}{7.24528302} \\
\hline Source & DF & Type I SS & Mean Square & F & Value & \(\mathrm{Pr}>\mathrm{F}\) \\
\hline PRIMINGT & 1 & 0.14322959 & 0.14322959 & & 0.03 & 0.8643 \\
\hline ETHNIC & 1 & 18.09407304 & 18.09407304 & & 3.73 & 0.0592 \\
\hline PRIMINGT*ETHNIC & 1 & 15.96229652 & 15.96229652 & & 3.29 & 0.0758 \\
\hline Source & DF & Type III SS & Mean Square & F & Value & \(\mathrm{Pr}>\mathrm{F}\) \\
\hline PRIMINGT & 1 & 0.28685413 & 0.28685413 & & 0.06 & 0.8089 \\
\hline ETHNIC & 1 & 17.37446743 & 17.37446743 & & 3.58 & 0.0643 \\
\hline PRIMINGT*ETHNIC & 1 & 15.96229652 & 15.96229652 & & 3.29 & 0.0758 \\
\hline Contrast & DF & Contrast SS & Mean Square & F & Value & \(\mathrm{Pr}>\mathrm{F}\) \\
\hline vis vs ver w/in eng & 1 & 10.48616199 & 10.48616199 & & 2.16 & 0.1478 \\
\hline vis vs ver w/in chin & 1 & 5.86080586 & 5.86080586 & & 1.21 & 0.2770 \\
\hline eng vs chin w/in vis & 1 & 0.01465201 & 0.01465201 & & 0.00 & 0.9564 \\
\hline eng vs chin w/in ver & 1 & 34.04171754 & 34.04171754 & & 7.02 & 0.0108 \\
\hline & S-c & dep study - eth & \begin{tabular}{l}
h, 2=chines \\
08:55 Tu
\end{tabular} & day & , Apri & l 20,1919 \\
\hline
\end{tabular}

Dependent Variable: CATTLFIL
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Source & DF & Sum of Squares & Mean Square & F & Value & \(\mathrm{Pr}>\mathrm{F}\) \\
\hline Model & 3 & 19.91699495 & 6.63899832 & & 2.52 & 0.0684 \\
\hline Error & 49 & 128.87545788 & 2.63011139 & & & \\
\hline \multirow[t]{2}{*}{Corrected Total} & 52 & 148.79245283 & & & & \\
\hline & \[
\begin{gathered}
\text { R-Square } \\
0.133858
\end{gathered}
\] & \[
\begin{array}{r}
\text { C.V. } \\
51.46909
\end{array}
\] & Root MSE
\[
1.62176182
\] & \multicolumn{3}{|r|}{CATTLFIL Mean
\[
3.15094340
\]} \\
\hline Source & DF & Type I SS & Mean Square & F & Value & Pr \(>\mathrm{F}\) \\
\hline PRIMINGT & 1 & 0.27963232 & 0.27963232 & & 0.11 & 0.7458 \\
\hline ETHNIC & 1 & 14.91851753 & 14.91851753 & & 5.67 & 0.0212 \\
\hline PRIMINGT*ETHNIC & 1 & 4.71884510 & 4.71884510 & & 1.79 & 0.1866 \\
\hline Source & DF & Type III SS & Mean Square & F & Value & \(\mathrm{Pr}>\mathrm{F}\) \\
\hline PRIMINGT & 1 & 0.49269059 & 0.49269059 & & 0.19 & 0.6670 \\
\hline ETHNIC & 1 & 14.55915585 & 14.55915585 & & 5.54 & 0.0227 \\
\hline PRIMINGT*ETHNIC & 1 & 4.71884510 & 4.71884510 & & 1.79 & 0.1866 \\
\hline Contrast & DF & Contrast SS & Mean Square & F & Value & Pr \(>\mathrm{F}\) \\
\hline vis vs ver w/in eng & 1 & 4.21978022 & . 21978022 & & 1.60 & 0.2113 \\
\hline vis vs ver w/in chin & 1 & 1.05860806 & 05860806 & & 0.40 & 0.5288 \\
\hline eng vs chin w/in vis & 1 & 1.32234432 & 32234432 & & 0.50 & 0.4816 \\
\hline eng vs chin w/in ver & 1 & 18.31501832 & 31501832 & & 6.96 & 0.0111 \\
\hline \multicolumn{3}{|r|}{cross-cultural indep study - ethnic:l=english,} & h, 2=chinese & 08:55 Tuesday & , Apri & , 20 \\
\hline
\end{tabular}

Dependent Vari able: CATTLSOC
\begin{tabular}{lrrrrr} 
Source & DF & Sum of Squares & Mean Square & Falue & Pr \\
Model & 3 & 5.31876771 & 1.77292257 \\
Error & 49 & 64.15293040 & 1.30924348
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline \multicolumn{2}{|r|}{\[
\begin{aligned}
& \text { R-Square } \\
& 0.076560
\end{aligned}
\]} & \[
\begin{array}{r}
\text { C.V. } \\
29.87377
\end{array}
\] & \[
\begin{array}{r}
\text { Root MSE } \\
1.14422178
\end{array}
\] & \multicolumn{3}{|r|}{CATTLSOC Mean
3.83018868} \\
\hline Source & DF & Type I SS & Mean Square & F & Value & \(\mathrm{Pr}>\mathrm{F}\) \\
\hline PRIMINGT & 1 & 0.02582917 & 0.02582917 & & 0.02 & 0.8889 \\
\hline ETHNIC & 1 & 0.19835060 & 0.19835060 & & 0.15 & 0.6988 \\
\hline PRIMINGT*ETHNIC & 1 & 5.09458794 & 5.09458794 & & 3.89 & 0.0542 \\
\hline Source & DF & Type III SS & Mean Square & F & Value & \(\mathrm{Pr}>\mathrm{F}\) \\
\hline PRIMINGT & 1 & 0.01905924 & 0.01905924 & & 0.01 & 0.9045 \\
\hline ETHNIC & 1 & 0.15803205 & 0.15803205 & & 0.12 & 0.7298 \\
\hline PRIMINGT*ETHNIC & 1 & 5.09458794 & 5.09458794 & & 3.89 & 0.0542 \\
\hline Contrast & DF & Contrast SS & Mean Square & F & Value & \(\mathrm{Pr}>\mathrm{F}\) \\
\hline vis vs ver w/in eng & 1 & 2.93040293 & 2.93040293 & & 2.24 & 0.1410 \\
\hline vis vs ver w/in chin & 1 & 2.19871795 & 2.19871795 & & 1.68 & 0.2011 \\
\hline eng vs chin w/in vis & 1 & 1.69322344 & 1.69322344 & & 1.29 & 0.2610 \\
\hline \multicolumn{2}{|l|}{\multirow[t]{2}{*}{eng vs chin w/in ver cross-cultural indep}} & 3.59971510 & 3.59971510 & & 2.75 & 0.1037 \\
\hline & & \multicolumn{3}{|r|}{08:55 Tuesday,} & , April & , 21 \\
\hline
\end{tabular}

Dependent Variable: CATINCO


Dependent Variable: BRATTL
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Source & DF & Sum of Squares & Mean Square & F & Value & \(\mathrm{Pr}>\mathrm{F}\) \\
\hline Model & 3 & 89.41450688 & 29.80483563 & & 3.58 & 0.0202 \\
\hline Error & 49 & 407.79304029 & 8.32230694 & & & \\
\hline \multirow[t]{2}{*}{Corrected Total} & 52 & 497.20754717 & & & & \\
\hline & \[
\begin{gathered}
\text { R-Square } \\
0.179833
\end{gathered}
\] & \[
\begin{array}{r}
\text { C.V. } \\
114.1019
\end{array}
\] & Root MSE
\[
2.88484089
\] & \multicolumn{3}{|r|}{\[
\begin{array}{r}
\text { BRATTL Mean } \\
2.52830189
\end{array}
\]} \\
\hline Source & DF & Type I SS & Mean Square & F & Value & Pr \(>\mathrm{F}\) \\
\hline PRIMINGT & 1 & 7.15626512 & 7.15626512 & & 0.86 & 0.3583 \\
\hline ETHNIC & 1 & 34.33419099 & 34.33419099 & & 4.13 & 0.0477 \\
\hline PRIMINGT*ETHNIC & 1 & 47.92405077 & 47.92405077 & & 5.76 & 0.0203 \\
\hline Source & DF & Type III SS & Mean Square & F & Value & \(\mathrm{Pr}>\mathrm{F}\) \\
\hline PRIMINGT & 1 & 8.16574262 & 8.16574262 & & 0.98 & 0.3268 \\
\hline ETHNIC & 1 & 32.62495712 & 32.62495712 & & 3.92 & 0.0533 \\
\hline
\end{tabular}


Dependent Variable: BRASOC
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Source & DF & Sum of Squares & Mean Square & & Value & \[
\mathrm{Pr}>\mathrm{F}
\] \\
\hline Model & 3 & 18.90787200 & 6.30262400 & & 3.43 & 0.0241 \\
\hline Error & 49 & 90.07326007 & 1.83822980 & & & \\
\hline \multirow[t]{2}{*}{Corrected Total} & 52 & 108.98113208 & & & & \\
\hline & \[
\begin{gathered}
\text { R-Square } \\
0.173497
\end{gathered}
\] & \[
\begin{array}{r}
\text { C.V. } \\
138.1887
\end{array}
\] & \[
\begin{array}{r}
\text { Root MSE } \\
1.35581333
\end{array}
\] & \multicolumn{3}{|r|}{\[
\begin{array}{r}
\text { BRASOC Mean } \\
0.98113208
\end{array}
\]} \\
\hline Source & DF & Type I SS & Mean Square & F & Value & \(\mathrm{Pr}>\mathrm{F}\) \\
\hline PRIMINGT & \multirow[t]{2}{*}{1} & 5.46688706 & 5.46688706 & & 2.97 & 0.0909 \\
\hline ETHNIC & & 0.07488377 & 0.07488377 & & 0.04 & 0.8409 \\
\hline PRIMINGT*ETHNIC & 1 & 13.36610117 & 13.36610117 & & 7.27 & 0.0096 \\
\hline Source & DF & Type III SS & Mean Square & F & Value & \(\mathrm{Pr}>\mathrm{F}\) \\
\hline PRIMINGT & 1 & 5.16238947 & 5.16238947 & & 2.81 & 0.1001 \\
\hline ETHNIC & 1 & 0.03852240 & 0.03852240 & & 0.02 & 0.8855 \\
\hline PRIMINGT*ETHNIC & 1 & 13.36610117 & 13.36610117 & & 7.27 & 0.0096 \\
\hline Contrast & DF & Contrast SS & Mean Square & F & Value & \(\operatorname{Pr}>\mathrm{F}\) \\
\hline vis vs ver w/in eng & 1 & 17.95054945 & 17.95054945 & & 9.77 & 0.0030 \\
\hline vis vs ver w/in chin & 1 & 0.93772894 & 0.93772894 & & 0.51 & 0.4785 \\
\hline \multirow[t]{2}{*}{eng vs chin w/in vis} & 1 & 5.86080586 & 5.86080586 & & 3.19 & 0.0804 \\
\hline & \multirow[b]{2}{*}{cross-cultural} & 7.58017908 & 7.58017908 & & 4.12 & 0.0477 \\
\hline  & & indep study - ethnic:l=englisih, & \multicolumn{2}{|l|}{08:55 Tuesday} & , Apri & , 25 \\
\hline
\end{tabular}


Dependent Variable: BNCOR


General Linear Models Procedure
Dependent Variable: BNINCOR
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Source & DF & Sum of Squares & Mean Square & F & Value & \(\mathrm{Pr}>\mathrm{F}\) \\
\hline Model & 3 & 14.65180731 & 4.88393577 & & & \\
\hline Error & 49 & 60.21611722 & 1.22890035 & & & \\
\hline Corrected Total & 52 & 74.86792453 & & & & \\
\hline & \[
\begin{aligned}
& \text { R-Square } \\
& 0.195702
\end{aligned}
\] & \[
\begin{gathered}
\text { C.V. } \\
189.5276
\end{gathered}
\] & \[
\begin{array}{r}
\text { Root MSE } \\
1.10855778
\end{array}
\] & \multicolumn{3}{|r|}{BNINCOR Mean
0.58490566} \\
\hline Source & DF & Type I SS & Mean Square & F & Value & \(\mathrm{Pr}>\mathrm{F}\) \\
\hline PRIMINGT & & 1.73402139 & 1.73402139 & & 1.41 & 0.2406 \\
\hline ETHNIC & & 12.67209908 & 12.67209908 & & 10.31 & 0.0023 \\
\hline
\end{tabular}


Dependent Variable: BCCOR


Dependent Variable: BCINCOR
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{Source} & DF & \multirow[t]{4}{*}{\[
\begin{array}{r}
\text { Sum of Squares } \\
11.65351787 \\
65.55402930 \\
77.20754717
\end{array}
\]} & \multirow[t]{4}{*}{Mean Square 3.88450596 1.33783733} & \multirow[t]{5}{*}{F} & \multirow[t]{4}{*}{\[
\begin{array}{r}
\text { Value } \\
2.90
\end{array}
\]} & \multirow[t]{4}{*}{\[
\begin{gathered}
\mathrm{Pr}>\mathrm{F} \\
0.0440
\end{gathered}
\]} \\
\hline & 3 & & & & & \\
\hline Error & 49 & & & & & \\
\hline Corrected Total & 52 & & & & & \\
\hline \multicolumn{2}{|r|}{\[
\begin{aligned}
& \text { R-Square } \\
& 0.150938
\end{aligned}
\]} & \[
\begin{array}{r}
C . V \\
218.9372
\end{array}
\] & \[
\begin{array}{r}
\text { Root MSE } \\
1.15664918
\end{array}
\] & & \multicolumn{2}{|r|}{\begin{tabular}{l}
BCINCOR Mean \\
0.52830189
\end{tabular}} \\
\hline Source & DF & Type I SS & Mean Square & F & Value & \(\mathrm{Pr}>\mathrm{F}\) \\
\hline PRIMINGT & 1 & 6.47962694 & 6.47962694 & & 4.84 & 0.0325 \\
\hline ETHNIC & 1 & 1.34121328 & 1.34121328 & & 1.00 & 0.3216 \\
\hline PRIMINGT*ETHNIC & 1 & 3.83267764 & 3.83267764 & & 2.86 & 0.0969 \\
\hline Source & DF & Type III SS & Mean Square & F & Value & Pr > F \\
\hline PRIMINGT & 1 & 5.92158572 & 5.92158572 & & 4.43 & 0.0405 \\
\hline ETHNIC & 1 & 1.43820203 & 1.43820203 & & 1.08
2.86 & 0.3049
0.0969 \\
\hline PRIMINGT*ETHNIC & 1 & 3.83267764 & 3.83267764 & & 2.86 & 0.0969 \\
\hline Contrast & DF & Contrast SS & Mean Square & F & Value & Pr > F \\
\hline vis vs ver w/in eng & 1 & 9.84940985 & 9.84940985 & & 7.36 & 0.0092 \\
\hline vis vs ver w/in chin & 1 & 0.11080586 & 0.11080586 & & 0.08 & 0.7747 \\
\hline eng vs chin w/in vis & 1 & 4.88003663 & 4.88003663
0.29385429 & & 3.65
0.22 & 0.6414 \\
\hline eng vs chin w/in ver & 1 & 0.29385429 & 0.29385429 & & & \\
\hline
\end{tabular}
```

cross cultural indep study ethnic:l=english, 2=chinese

General Linear Models Procedure

Dependent Variable: NCCOR

| Source | DF | Sum of Squares | Mean Square | F | Value | $\mathrm{Pr}>\mathrm{F}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Model | 3 | 42.53305342 | 14.17768447 |  | 1.91 | 0.1396 |
| Error | 49 | 362.93864469 | 7.40691112 |  |  |  |
| Corrected Total | 52 | 405.47169811 |  |  |  |  |
|  | $\begin{gathered} \text { R-Square } \\ 0.104898 \end{gathered}$ | $\begin{array}{r} \text { C.V. } \\ 148.7040 \end{array}$ | Root MSE $2.72156409$ | NCCOR Mean <br> 1.83018868 |  |  |
| Source | DF | Type I SS | Mean Square | F | Value | Pr $>\mathrm{F}$ |
| PRIMINGT | 1 | 5.56429071 | 5.56429071 |  | 0.75 | 0.3903 |
| ETHNIC | 1 | 3.79044582 | 3.79044582 |  | 0.51 | 0.4778 |
| PRIMINGT*ETHNIC | 1 | 33.17831690 | 33.17831690 |  | 4.48 | 0.0394 |
| Source | DF | Type III SS | Mean Square | F | Value | Pr $>\mathrm{F}$ |
| PRIMINGT | 1 | 5.49251630 | 5.49251630 |  | 0.74 | 0.3934 |
| ETHNIC | 1 | 3.32937430 | 3.32937430 |  | 0.45 | 0.5057 |
| PRIMINGT*ETHNIC | 1 | 33.17831690 | 33.17831690 |  | 4.48 | 0.0394 |
| Contrast | DF | Contrast S3 | Mean Square |  | Value | $>\mathrm{F}$ |
| vis vs ver w/in eng | 1 | 33.54415954 | 33.54415954 |  | 4.53 | 0.0384 |
| vis vs ver w/in chin | 1 | 5.71520147 | 5.71520147 |  | 0.77 | 0.3840 |
| eng vs chin w/in vis | 1 | 7.58333333 | 7.58333333 |  | 1.02 | 0.3166 |
| eng vs chin w/in ver | 1 | 29.38542939 | 29.38542939 |  | 3.97 | 0.0520 |
| $\begin{array}{rrrr}\text { crossultural indep study - ethnic:loenglish, 2=chinese } \\ & 08: 55 \text { Tuesday, April } 20,1999\end{array}$ |  |  |  |  |  |  |

General Linear Models Procedure
Dependent Variable: NCINCOR

| Source | DF | Sum of Squares | Mean Square | F | Value | $\mathrm{Pr}>\mathrm{F}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Model | 3 | 8.71495957 | 2.90498652 |  | 2.16 | 0.1049 |
| Error | 49 | 65.96428571 | 1.34620991 |  |  |  |
| Corrected Total | 52 | 74.67924528 |  |  |  |  |
|  |  | $\begin{array}{r} \text { C.V. } \\ 192.1685 \end{array}$ | Root MSE $1.16026286$ | NCINCOR Mean$0.60377358$ |  |  |
| Source | DF | Type I SS | Mean Square | F | Value | Pr |
| PRIMINGT | 1 | 0.12796323 | 0.12796323 |  | 0.10 | 0.7592 |
| ETHNIC | 1 | 8.54912409 | 8.54912409 |  | 6.35 | 0.0150 |
| PRIMINGT* ETHNIC | 1 | 0.03787225 | 0.03787225 |  | 0.03 | 0.8675 |
| Source | DF | Type III SS | Mean Square | F | Value | Pr |
| PRIMINGT | 1 | 0.03787225 | 0.03787225 |  | 0.03 | 0.8675 |
| ETHNIC | 1 | 8.52125593 | 8.52125593 |  | 6.33 | 0.0152 |
| PRIMINGT*ETHNIC | 1 | 0.03787225 | 0.03787225 |  | 0.03 | 0.8675 |
| Contrast | DF | Contrast SS | Mean Square | F | Value | Pr |
| vis vs ver w/in eng | 1 | 0.00000000 | 0.00000000 |  | 0.00 | 1.0000 |
| vis vs ver w/in chin | 1 | 0.07417582 | 0.07417582 |  | 0.06 | 0.8154 |
| eng vs chin w/in vis | 1 | 3.63461538 | 3.63461538 |  | 2.70 | 0.1068 |
| eng vs chin w/in ver | 1 | 4.95238095 | 4.95238095 |  | 3.68 |  |
| cross-cultural indep scudy - ethnic:loenglish, $2=c h i n e s e ~$ |  |  |  |  |  |  |

Dependent Variable: COMPO

| Source | DF | Sum of Squares | :ean Square | F Value | $\mathrm{Pr}>\mathrm{F}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Model | 3 | 1.61847743 | 0.53949248 | 0.94 | 0.4309 |
| Error | 49 | 28.26831502 | 0.57690439 |  |  |
| Corrected Total | 52 | 29.88679245 |  |  |  |
|  | $\begin{aligned} & \text { R-Square } \\ & 0.054154 \end{aligned}$ | 223.6430 | Root MSE <br> 0.75954222 |  | COMPO Mean 0.33962264 |


| Source | DF | Type I SS | Mean Square | F | Value | $\mathrm{Pr}>\mathrm{F}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 0.75858732 | 0.75858732 |  | 1.31 | 0.2571 |
| PRIMINGI | 1 | 0.85025951 | 0.85025951 |  | 1.47 | 0.2306 |
| ETHNIC | 1 | 0.00963060 | 0.00963060 |  | 0.02 | 0.8977 |
| PRIMINGT*ETHNIC | 1 | Type III SS | Mean Square | F | Value | Pr > F |
| Source | DF | 0.84605701 | 0.84605701 |  | 1.47 | 0.2317 |
| PRIMINGT | 1 | 0.84605701 | 0.84605701 |  | 1.47 | 0.2317 |
| ETHNIC | 1 | 0.00963060 | 0.00963060 |  | 0.02 |  |
| PRIMINGT*ETHNIC | 1 | Contrast SS | Mean Square | F | Value | $\mathrm{Pr}>\mathrm{F}$ |
| Contrast | DF |  |  |  |  |  |
| vis vs ver w/in eng | 1 | 0.52930403 0.33058608 | $\begin{aligned} & 0.52930403 \\ & 0.33058608 \end{aligned}$ |  | 0.92 0.57 | $\begin{aligned} & 0.3428 \\ & 0.4527 \end{aligned}$ |
| vis vs ver w/in chin | 1 | 0.33058608 0.33058608 | $\begin{aligned} & 0.33058608 \\ & 0.33058608 \end{aligned}$ |  | 0.57 | 0.4527 |
| eng vs chin w/in vis | 1 | 0.33058608 0.52930403 | 0.352930403 |  | 0.92 | 0.3428 |
| eng vs chin w/in ver | 1 | study - et | h, $2=$ chines |  |  | $\begin{array}{r}33 \\ \hline 1999\end{array}$ |

General Linear Models Procedure
Dependent Variable: COMNEG


Dependent Variable: COMNEU

| Source | DF | Sum of Squares | Mean Square | F | Value | $\mathrm{Pr}>\mathrm{F}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Model | 3 | 4.42250674 | 1.47416891 |  | 1.52 | 0.2205 |
| Error | 49 | 47.46428571 | 0.96865889 |  |  |  |
| Corrected Total | 52 | 51.88679245 |  |  |  |  |
|  | $\begin{gathered} \text { R-Square } \\ 0.085234 \end{gathered}$ | $\begin{array}{r} \text { C.V. } \\ 289.7936 \end{array}$ | Root MSE $0.98420470$ |  |  | COMNEU Mean $0.33962264$ |
| Source | DF | Type I SS | Mean Square | F | Value | $\mathrm{Pr}>\mathrm{F}$ |
| PRIMINGT | 1 | 0.35545342 | 0.35545342 |  | 0.37 | 0.5475 |
| ETHNIC | 1 | 4.02918107 | . 02918107 |  | 4.16 | 0.0468 |
| PRIMINGT*ETHNIC | 1 | 0.03787225 | 0.03787225 |  | 0.04 | 0.8441 |
| Source | DF | Type III SS | Mean Square | F | Value | $\operatorname{Pr}>\mathrm{F}$ |
| PRIMINGT | 1 | 0.50917134 | 0.50917134 |  | 0.53 | 0.4719 |
| ETHNIC | 1 | 4.04391454 | 4.04391454 |  | 4.17 | 0.0464 |
| PRIMINGT*ETHNIC | 1 | 0.03787225 | 0.03787225 |  | 0.04 | 0.8441 |



Dependent Variable: GENDER


Dependent Variable: AGE


General Linear Models Procedure
Dependent Variable: PROF
Source


Dependent Variable: LANG

| Source | DF | Sum of Squares | Mean Square | F | Value | $\mathrm{Pr}>\mathrm{F}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Model | 3 | 0.52871657 | 0.17623886 |  | 1.38 | 0.2603 |
| Error | 49 | 6.26373626 | 0.12783135 |  |  |  |
| Corrected Total | 52 | 6.79245283 |  |  |  |  |
|  |  | $\begin{gathered} \text { C.V. } \\ 42.10969 \end{gathered}$ | Root MSE $0.35753511$ | LANG Mean$0.84905660$ |  |  |
| Source | DF | Type I SS | Mean Square | F | Value | $\mathrm{Pr}>\mathrm{F}$ |
| PRIMINGT | 1 | 0.00043004 | 0.00043004 |  | 0.00 | 0.9540 |
| ETHNIC | 1 | 0.27929081 | 0.27929081 |  | 2.18 | 0.1458 |
| PRIMINGT*ETHNIC | 1 | 0.24899572 | 0.24899572 |  | 1.95 | 0.1691 |
| Source | DF | Type III SS | Mean Square | F | Value | $\operatorname{Pr}>\mathrm{F}$ |
| PRIMINGT | 1 | 0.00039839 | 0.00039839 |  | 0.00 | 0.9557 |
| ETHNIC | 1 | 0.29042860 | 0.29042860 |  | 2.27 | 0.1382 |
| PRIMINGT*ETHNIC | 1 | 0.24899572 | 0.24899572 |  | 1.95 | 0.1691 |
| Contrast | DF | Contrast SS | Mean Square | F | Value | $\mathrm{Pr}>\mathrm{F}$ |
| vis vs ver w/in eng | 1 | 0.11721612 | 0.11721612 |  | 0.92 | 0.3430 |
| vis vs ver w/in chin | 1 | 0.13186813 | 0.13186813 |  | 1.03 | 0.3148 |
| eng vs chin w/in vis | 1 | 0.52747253 | 0.52747253 |  | 4.13 | 0.0477 |
| eng vs chin w/in ver | 1 | 0.00081400 | 0.00081400 |  | 0.01 | 0.9367 |

$$
\begin{array}{rr}
\text { cross-cultural indep study - ethnic:l=english, 2=chinese } & 39 \\
& 08: 55 \text { Tuesday, April } 20,1999
\end{array}
$$

General Linear Models Procedure

| Level of PRIMINGT | -INDEPSC- |  |  | RECOGCRI |  | RECOGFIL |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SD | Mean | SD | Mean | SD |
| 1 | 26 | 71.7307692 | 8.77978447 | 7.73076923 | 2.73580251 | 7.11538462 | 1.60815231 |
| 2 | 27 | 72.4444444 | 8.89396223 | 8.00000000 | 3.47518677 | 7.37037037 | 2.42023756 |
| Level of PRIMINGT |  | RECOGTOT |  | -SOCIAL- |  | NOSOCIAL |  |
|  |  | Mean | SD | Mean | SD | Mean | SD |
| 1 | 26 | 14.8461538 | 3.74905116 | 7.57692308 | 2.17574037 | 7.26923077 | 2.34192557 |
| 2 | 27 | 15.3703704 | 5.61007437 | 7.77777778 | 2.91327642 | 7.59259259 | 3.10408241 |
| Level of PRIMINGT |  | SOCBKDIF |  | -AVGATTC- |  | -AVGATTF- |  |
|  |  | Mean | SD | Mean | SD | Mean | SD |






\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Source \& DF \& Sum of Squares \& Mean Square \& \multirow[t]{4}{*}{F} \& Value \& \multirow[t]{3}{*}{$$
\begin{aligned}
& \mathrm{Pr}>\mathrm{F} \\
& 0.2890
\end{aligned}
$$} <br>
\hline Model \& 3 \& 396.54747253 \& 132.18249084 \& \& 1.29 \& <br>
\hline Error \& 46 \& 4712.57252747 \& 102.44722886 \& \& \& <br>
\hline \multirow[t]{2}{*}{Corrected Total} \& 49 \& 5109.12000000 \& 102.4422886 \& \& \& <br>
\hline \& $$
\begin{gathered}
\text { R-Square } \\
0.077616
\end{gathered}
$$ \& $$
\begin{gathered}
C . V \\
13.81980
\end{gathered}
$$ \& $$
\begin{array}{r}
\text { Root MSE } \\
10.12162185
\end{array}
$$ \& \multicolumn{3}{|r|}{DEPSC Mean
$$
73.24000000
$$} <br>
\hline Source \& DF \& Type I SS \& Mean Square \& F \& Value \& Pr $>\mathrm{F}$ <br>
\hline PRIMINGT \& 1 \& 84.93964573 \& 84.93964573 \& \& 0.83 \& 0.3673 <br>
\hline ETHNIC \& 1 \& 290.09888337 \& 290.09888337 \& \& 2.83 \& 0.0992 <br>
\hline PRIMINGT*ETHNIC \& 1 \& 21.50894342 \& 21.50894342 \& \& 0.21 \& 0.6490 <br>
\hline Source \& DF \& Type III SS \& Mean Square \& F \& Value \& Pr $>\mathrm{F}$ <br>
\hline PRIMINGT \& 1 \& 117.54948396 \& 117.54948396 \& \& 1.15 \& 0.2897 <br>
\hline ETHNIC \& 1 \& 301.84989976 \& 301.84989976 \& \& 2.95 \& 0.0928 <br>
\hline PRIMINGT*ETHNIC \& 1 \& 21.50894342 \& 21.50894342 \& \& 0.21 \& 0.6490 <br>
\hline Contrast \& DF \& Contrast SS \& Mean Square \& \multicolumn{2}{|l|}{F Value} \& $\mathrm{Pr}>\mathrm{F}$ <br>
\hline vis vs ver w/in eng \& 1 \& 20.34615385 \& 20.34615385 \& \& 0.20 \& 0.6579 <br>
\hline vis vs ver w/in chin \& 1 \& 113.66785714 \& 113.66785714 \& \& 1.11 \& 0.2977 <br>
\hline eng vs chin w/in vis \& 1 \& 222.69431438 \& 222.69431438 \& \& 2.17 \& 0.1472 <br>
\hline eng vs chin w/in ver \& 1 \& 88.91351241 \& 88.91351241 \& \& 0.87 \& 0.3564 <br>
\hline \multicolumn{7}{|r|}{cross-cultural indep study - ethnic:1=english,

$08: 55$ chinese
080} <br>
\hline
\end{tabular}

General Linear Models Procedure


Dependent Variable: YRSEDUC

| Source | DF | Sum of Squares | Mean Square | F | $\begin{gathered} \text { Value } \\ 4.77 \end{gathered}$ | $\begin{aligned} & \mathrm{Pr}>\mathrm{F} \\ & 0.0059 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Model | 3 | 191.38396887 | 63.79465629 |  |  |  |
| Error | 43 | 575.25432900 | 13.37800765 |  |  |  |
| Corrected Total | 46 | 766.63829787 |  |  |  |  |
|  | $\begin{gathered} \text { R-Square } \\ 0.249641 \end{gathered}$ | $\begin{array}{r} \text { C.V. } \\ 26.44723 \end{array}$ | $\begin{array}{r} \text { Root MSE } \\ 3.65759588 \end{array}$ | YRSEDUC Mean 13.82978723 |  |  |
| Source | DF | Type I SS | Mean Square | F | Value | $\mathrm{Pr}>\mathrm{F}$ |
| PRIMINGT | 1 | 40.89192106 | 40.89192106 |  | 3.06 | 0.0875 |
| ETHNIC | 1 | 139.81650831 | 139.81650831 |  | 10.45 | 0.0024 |
| PRIMINGT*ETHNIC | 1 | 10.67553950 | 10.67553950 |  | 0.80 | 0.3767 |
| Source | DF | Type III SS | Mean Square | F | Value | $\mathrm{Pr}>\mathrm{F}$ |
| PRIMINGT | 1 | 27.85149441 | 27.85149441 |  | 2.08 | 0.1563 |
| ETHNIC | 1 | 139.17898346 | 139.17898346 |  | 10.40 | 0.0024 |
| PRIMINGT*ETHNIC | 1 | 10.67553950 | 10.67553950 |  | 0.80 | 0.3767 |
| Contrast | DF | Contrast SS | Mean Square | F | Value | Pr > F |
| s vs ver w/in | 1 | 1.82900433 | 1.82900433 |  | 0.14 | 0.7134 |


| vis vs ver w/in chin | 1 | 40.77014652 | 40.77014652 | 3.05 | 0.0880 |
| :--- | :--- | ---: | ---: | ---: | ---: |
| eng vs chin w/in vis | 1 | 36.08728590 | 36.08728590 | $\mathbf{2 . 7 0}$ | 0.1078 |
| eng vs chin w/in ver | 1 | 114.40476190 | 114.40476190 | 8.55 | 0.0055 |



Dependent Variable: ORIGIN


General Linear Models Procedure

| Level of PRIMINGT | N | -----------ORIGIN----- |  |
| :---: | :---: | :---: | :---: |
|  |  | Mean | SD |
| 1 | 12 | 0.50000000 | 0.79772404 |
| 2 | 16 | 0.37500000 | 0.71879529 |

