

國 立 清 華 大 學 命 題 紙

95學年度 語言學研究所 系(所) _____ 組碩士班入學考試

科目 國文與英文 科目代碼 4103 共 3 頁 第 1 頁 *請在【答案卷卡】內作答

I. Read the following article and answer the questions below. Please be concise in answering the questions. (25%)

The possibility that human language ability has genetic roots was raised about forty years ago by the linguist Noam Chomsky and the neurologist Eric Lenneberg. Chomsky noted that language is universal, complex and rapidly acquired by children without explicit instruction. Lenneberg pointed out that a small number of children fail to display this talent and that such deficits sometimes run in families. Specific language impairment not only runs in families but is more concordant in identical than in fraternal twins, suggesting that it has a heritable component.

In 1990, investigators described the 'KEs' — a large family, of several generations, in which half the members suffer from a speech and language disorder. This disorder is distributed within the family in a manner that suggests it is caused by a dominant gene, or a set of linked genes, on an autosomal (non-sex) chromosome. The press referred to it as a 'grammar gene', while skeptics suggested that it merely lowers intelligence or makes speech unintelligible, or even that the disorder is nothing more than an artefact of a working-class dialect.

Extensive testing by psycholinguists suggested that the disorder is more complex than either of these extremes. Affected family members do tend to score below average in intelligence tests. But the language impairment cannot be a simple consequence of low intelligence, because some of the affected members score in the normal range, and some score more highly than their unaffected relatives. They also have trouble identifying basic speech sounds, understanding sentences, judging grammaticality, and other language skills. For example, as adults they stumble at a task involving nonsense words that most four-year-olds pass with ease: completing sequences such as 'Every day I plam; yesterday I _____'.

In 1998 several researchers linked the disorder to a small segment of chromosome, which they labeled SPCH1. Lai et al. have narrowed the disorder down to a specific gene, FOXP2. In all the affected members of the KE family examined, but in none of the unaffected members, and in none of 364 chromosomes from unrelated, unaffected people, a single guanine nucleotide is replaced by an adenine. FOXP2 belongs to a family of genes many of which have important roles in embryonic development. FOXP2 appears to be strongly expressed in fetal brain tissue. If FOXP2 really does prove necessary for the development of the human faculty of language and speech, one can imagine unprecedented lines of future research. Comparisons of the gene in humans to those in chimpanzees and other primates, and analyses of the types and patterns of sequence variation within the region of FOXP2, could add to our understanding of how human language evolved.

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(Continuing from I—)

Questions:

1. What should the blank in paragraph 3 be filled with? (5%)
2. In the context of this article, what is the best candidate for the 'grammatical gene'? (5%)
3. In paragraph 2 it is said that skeptics suggested that the disorder might be "nothing more than an artefact of a working-class dialect." What does that mean? (5%)
4. With regards to the case of the 'KEs', skeptics suggested the possibility that the syndromes might have resulted from low intelligence or unintelligible speeches. If this were the case, certain phenomena as described in the article shouldn't have appeared. Instead, what would be the expected phenomena? (5%)
5. If one suggests that the case of the 'KEs' may have simply arisen from bad motor control of the articulatory organs (the tongue, lips, etc.), what evidence can you cite from this article to refute such possibility? (5%)

II. Essay (25%)

The famous *Sapir-Whorf Hypothesis* states that as languages differ, the ways of human thinking may differ. Some examples have been cited to support this hypothesis, such as the numerous words for the different colors of snow in the Eskimo languages. A radical example that has been proposed is that some languages don't have morphological tense, therefore the speakers of those language lack the concept of time. What do you think about this hypothesis and its validity?

The example on the words for the colors of snow isn't really a good example, since different categorizations of concepts into words may occur even within a language community—so don't bother discussing this kind of examples. Keep your discussion as *scientific* as possible (namely, stay linguistically oriented). *Argue* for your points; don't just mention what you "feel." Please avoid vague terms/concepts such as cultural differences, social values, and so on.

Limit you essay within 250 words. Write the number of words that you use at the end of the essay.

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國文 (50%)

作文：我參加這次考試的心情