平成30年度

大学院文学研究科博士課程前期2年の課程入学試験

（秋期・一般選抜）問題

専門科目I 英語学

試験開始の合図があるまで、この問題冊子を開いてはいけない。
(A) Evidently, we can study the evolution of some system only to the extent that we know what it is. In the present case, what has evolved is not languages, which do not evolve, in the technical sense of the term, any more than states of the visual system evolve. Rather, what has evolved is the capacity for language (LC), analogous to the genetic basis for a mammalian, not insect, visual system.

The study of the evolution of LC was opened, and given a solid basis, by Eric Lenneberg in his classic *Biological Foundations of Language* (1967). Among many other contributions, Lenneberg reviewed the sharp divergence between human language and the symbolic systems of other animals and the dissociations of language from other cognitive processes. These discoveries and insights have since been considerably extended and deepened. He also discussed the biological plausibility of qualitative discontinuity, a conclusion that is also much better grounded today—and a logical necessity for accounting for the emergence of systems of discrete infinity such as human language, which may indeed be unique in this regard, and the root of others, such as knowledge of arithmetic, a matter that greatly concerned Darwin and Wallace.

LC appears to be a true species property, unique to humans in essentials and invariant among human groups, indicating that it has undergone little if any evolutionary change at least since our ancestors left Africa some 60,000 years ago—possibly about twice that long, as some very recent genomic studies have indicated. Because of the apparent uniformity and stability of LC, the theory of theory of LC has in recent decades been called “universal grammar” (UG), adapting a traditional notion to a new biological context. UG is not to be confused with generalizations about surface properties, a topic that has been studied in highly informative ways, notably by Joseph Greenberg, but an entirely different one.

The most salient property of LC is that languages consist of a discrete infinity of structured expressions that are interpretable in a definite way by the conceptual–intentional system (CI) of thought and action and by a sensory–motor system (SM) for externalization, thus yielding a sound-meaning correlation over an infinite range, though the sound system, while convenient, is only one option. LC is thus based on a generative computational system (GEN) consisting of combinatorial operations that operate on atomic elements of the lexicon to yield the two interface representations. At the CI interface, GEN yields a kind of “language of thought” (LOT); in different terminology, a system of “conceptual structures” (CS). The lexicon includes substantive terms (word-like elements, though not words) and others that play a role in GEN.

The study of evolution of LC therefore seeks to establish the nature of the Lexicon and of the combinatorial operations of GEN. As to the former, there is solid evidence that (B) the terms of human languages are radically different from those of animal symbolic systems. The latter appear to be associated with mind-independent events, while even the simplest human terms violate this condition, an insight tracing back to classical Greece. There is, in short, no “word–object/thing” relationship for human language, though terms and more complex expressions of language may be used to refer to mind-external objects, a different matter. The evolutionary origin of even the most elementary human concepts/terms is a mystery, particularly those used to refer, and hence to relate the internal language to the external world. Even the task of giving accurate descriptions of these fundamental elements has barely been undertaken.
Turning to GEN, one of its crucial properties, which came to light as soon as the first efforts were undertaken to construct explicit accounts of language (generative grammars), is structure-dependence: (C) the operations of GEN apply to structures, not strings, even ignoring such elementary properties of externalized expressions as linear order. Thus, quite generally, operations keep to minimal distance, but in such expressions as "the man and the woman copula angry at reflexive," the copula and reflexive are plural, agreeing with the closest phrase (the man and the woman), not singular, agreeing with the linearly closest possible antecedent (the woman).

To take a more interesting case, consider (1):

(1) Which girls and boys did the men expect to like each other

Like other anaphors, each other seeks the closest potential antecedent. However, it skips the men, instead choosing which girls and boys, ignoring linear (and even structural) order, raising questions to which we will return.

Similar cases abound. Consider (2), (3):

(2) birds that fly instinctively swim
(3) instinctively, birds that fly swim

Sentence (2) is ambiguous: "fly instinctively" or "instinctively swim"; (3) is unambiguous: "instinctively swim." Again, the construal rule that relates the adverb to the verb ignores linear distance and observes minimal structural distance.

Structure-dependence holds for all relevant constructions in all languages. That universal property would be paradoxical if linear order were available to GEN, since linear distance is far more easily computed than structural distance. The only plausible conclusion is that linear order is simply not available to generation of the core semantic properties at CI. Other suggestions have been made, but those that are clear enough to investigate quickly collapse on inspection.

We conclude, then, that (D) there is a fundamental asymmetry between the two interfaces: GEN yields an infinite array of structured expressions at CI (LOT/CS). Ancillary operations of externalization map the structures produced by GEN to some sensory modality, introducing linear order and other properties that are required by SM but are irrelevant to core semantic/conceptual properties of language. Much other evidence supports this conclusion, including simple semantic facts. Thus, languages can have head-complement or complement-head order (say, VO or OV), the head parameter, but the semantic relationships are identical, a fact that generalizes widely (with apparent exceptions that go beyond the discussion here). Or consider again (1). Its interpretation at CI is, loosely, (4):

(4) for which girls and boys, the men expected those girls and boys to like each other

That would follow directly if what is generated at CI is (5), with two copies of the phrase which girls and boys, in which case each other, as expected, selects the closest potential antecedent (as always ignoring linear order, hence ignoring boys):

(5) [which girls and boys] did the men expect [which girls and boys] to like each other
Accordingly, we expect UG to determine that (5) is generated at CI, while the externalized form (1) is derived by deletion of a copy, thus minimizing internal and SM computation.

What reaches the mind, then, is (5), while what reaches the mouth/ear is (1), violating minimal distance, a matter of no concern given the basic architecture of LC, with its fundamental asymmetry of interfaces. Far more intricate cases of semantic interpretation fall under the same mechanisms.

(E) A wide variety of linguistic evidence supports the conclusion that externalization is an ancillary process, with properties that are in part a reflex of SM. There is independent support from psycholinguistics and the neurosciences. One productive paradigm has been to present subjects with two kinds of artificial languages, one modeled on a human language, thus conforming to UG, the other violating UG, for example, with rules that use linear order—say, negating a sentence by placing the negative particle after the third word, a rule far simpler to compute than actual linguistic rules. It turns out that, in the case of conformity to UG, there is normal activation in the language areas, though not when linear order is used. In that case, the task is interpreted as a non-linguistic puzzle, or so brain activity indicates. Work by Neil Smith and Ianthi-Maria Tsimpli with a cognitively impaired but linguistically fluent subject reached similar conclusions. They also found that normals were unable to deal with the violations of UG using linear order if the task was presented to them as linguistic, though they could handle the problem if it was presented as a puzzle.

Though many questions remain, the basic architectural asymmetry appears to be reasonably well established. It has many consequences. One is that uses of language that depend on externalization, notably communication, are even more peripheral to the nature of language, contrary to widely held beliefs. The asymmetry also illustrates again the sharp dissociation of language from animal symbolic systems.

A problem that arises at once is the apparent variety, diversity, and easy mutability of language, properties that appear to be inconsistent with the conclusion that UG is a species property, not having evolved throughout detectable human history. The problem would be resolved if these properties of language are confined, perhaps completely, to the lexicon and to externalization (hence to the SM interface). There is substantial evidence supporting this conclusion. (F) In particular, investigation of languages of wide typological variety has repeatedly shown that apparent sharp differences in underlying structures—for example, “flat” vs highly structured expressions—dissolve under deeper inquiry, lending support to the conclusion that the core system generating CI is close to uniform, as we should expect simply from the fact that it is acquired with little direct evidence, in many cases none at all.

Still, a question arises about the evolution of the options of variation—“parameters” as they have been called in recent work. The optimal conclusion would be that they did not evolve at all. Some might represent alternative solutions to the cognitive problem of relating a virtually invariant system that may satisfy conditions of minimal computation to SM systems that had long been in place and are unrelated to it. (G) Another possibility is that parameters, at least many of them, do not exist. They are options left open by GEN and the overarching principles of minimal computation. Consider again the head parameter. It is simply a mismatch between GEN, which assigns no order, and the SM systems that require it. Languages have to make a choice for externalization, and do it one way or another. English and Japanese, for example, are virtual mirror images. Note that the options resulting from mismatch lend further support to the conclusion that the internal system lacks order and other surface arrangements.
Pursuing further the nature of what has evolved, UG, consider again (1). It illustrates the ubiquitous property of *dislocation*: phrases that are heard in one position are interpreted both there and somewhere else, in a position where similar phrases can appear. Like structure-dependence, that property has been regarded as highly problematic from the earliest days of generative grammar.

(H)The challenge is to explain why UG should have such properties as the ones reviewed here. There is a very straightforward answer, which holds over a substantial range: GEN observes language-independent principles of computational efficiency, and UG itself is based on the simplest computational operation, call it Merge, an operation that is embedded somehow in every more complex computational procedure: take two objects X and Y already constructed and form a new object Z without modifying X or Y, or imposing any further structure on them: thus Merge (X,Y) = {X,Y}.

This elementary assumption suffices to yield the observations discussed above: the asymmetry of the interfaces and the locus of surface complexity and variety; the ubiquity of dislocation; structure-dependence; minimal structural distance for anaphoric and other construal; and the difference between what reaches the mind for semantic interpretation and what reaches the mouth and ear.


問1 下線部（A）を日本語に訳しなさい。

問2 下線部（B）について、具体的内容を本文に即して説明しなさい。
問3 下線部（C）について、具体的内容を本文中の(1), (2), (3)の例文を使って説明しなさい。

問4 下線部（D）について、具体的内容を本文中の(1)の例文を使って説明しなさい。

問5 下線部（E）について、具体的内容を本文に即して説明しなさい。
問6 下線部（F）を日本語に訳しなさい。

問7 下線部（G）について、具体的内容をhead parameter を使って説明しなさい。

問8 下線部（H）で指摘されている問題に対する解決法を本文に即して説明しなさい。
【II】以下の日本語の文を英語に訳しなさい。

英語を話す目的の第一は、自分の考えを説明し、意見を主張することでしょう。英語を学ぶ目的は、最終的には、そこににあると言って過言ではないように思います。ところが、これがなかなか思うようにいかないので、英語が話せない、という苦立ちは生むのではないかという気がします。

そこで、覚悟すべきは、「考えを述べる」というのは高度な知的能力と言語能力を必要とするので、ある程度の基礎ができないと自分の考えを十分に説明することができないということです。

【鳥飼美子『話すための英語力』（講談社現代新書）より】