

ability to speak and understand novel sentences, we must ascribe to the speaker's mind a mental grammar that specifies possible sentence patterns. But in order to account for the fact that we have no direct access to this mental grammar, we must admit the possibility that some essential and highly structured parts of our abilities are completely unconscious.

3 The argument for innate knowledge

The character of language acquisition

We now turn to the preliminaries to the second Fundamental Argument. Suppose, following the discussion of the previous chapter, that we have mental grammars in our heads. The next question is: How did they get there?

Observation: All normal human children end up being able to speak whatever language is spoken in the community where they grow up. (If more than one language is spoken regularly, they usually end up speaking them all—but let's stick to the monolingual case for now.) And the language they speak has nothing to do with where their parents came from: a child of American parents growing up in Israel as part of a Hebrew-speaking community will become a native speaker of Hebrew; a Vietnamese baby adopted in Holland will become a native speaker of Dutch. So it's pretty obvious that children learn their language from the other speakers around them.

How do children do it? Many people immediately assume that the parents taught it. To be sure, parents often engage in teaching words to their kids: "What's this, Amy? It's a *BIRDIE*! Say 'birdie,' Amy!" But language learning can't be entirely the result of teaching words. For one thing, there are lots of words that it is hard to imagine parents teaching, notably those one can't point to: "Say 'from,' Amy!" "This is *ANY*, Amy!"

Think also about children of immigrants, say the Americans who move to Israel. The adults often never feel comfortable with the language of the adopted country. They speak with an accent, they express themselves with hesitation, they admit to not quite following the news on television, and so forth. Yet their children become fully fluent native speakers of the new language. Evidently the children have learned something their parents don't know. So the parents couldn't have taught them. Nor is the children's knowledge necessarily a result of teaching in school—and of course in nonliterate

societies it can't be the result of teaching in school. More often, the children just "pick up" the language from being with other children. (This example also touches on another phenomenon, the fact that adults usually have much more difficulty learning a new language than children do. I'll return to this in Chapter 9.)

Although children often learn *words* as a result of parental instruction, it is less clear that they learn *grammatical patterns* this way. Anyone who has attempted to correct a two-year-old's grammar will know that it can't be done. The following dialogue, recorded by the linguist David McNeill, is a famous illustration.

- CHILD: Nobody don't like me.
 MOTHER: No, say "nobody likes me."
 CHILD: Nobody don't like me.
 ...
 (eight repetitions of this dialogue)
 ...
 MOTHER: No, now listen carefully; say "nobody likes me."
 CHILD: Oh! Nobody don't likes me.

(Of course, we can be sure that this child eventually got it right. But it may well have been at a time when the mother wasn't even paying attention.)

It is true that certain grammatical patterns *are* taught as part of school grammar, for example the rule that a preposition is something you must never end a sentence with. However, English speakers violate this rule all the time, and have for hundreds of years. I just did, two sentences ago. The idea that a preposition shouldn't occur at the end of a sentence seems to have arisen during the eighteenth century, when for the first time "authorities on English usage" sought to determine the "correct" way to speak, on the basis of the models of the classical languages Latin and Greek.

Now Latin and Greek genuinely do not allow sentences that end with prepositions. Neither do most modern European languages (for instance French, Italian, Spanish, and, with some caveats, German; Swedish, however, is more like English). If we translate "Who did she arrive with?" word for word into those languages—say, "Qui est-elle arrivée avec?" in French—it sounds as barbarous as "Harry ate peanuts a hundred" does in English.

By analogy, the "authorities" ruled that prepositions shouldn't end sentences in English either. Since that time, generations of children have been drilled on this rule, with little effect except in their

formal writing. And ending sentences with prepositions is still very much alive in English.

Such proscriptive teaching of grammar, which evidently doesn't work very well, contrasts strikingly with aspects of English sentence patterns that probably nobody has ever thought to teach. Here's an example. Look at the four sentences in (1).

- (1) *a* Joan appeared to Moira to like herself.
b Joan appeared to Moira to like her.
c Joan appealed to Moira to like herself.
d Joan appealed to Moira to like her.

Without thinking about it consciously, you have automatically inferred that each of these sentences has a different combination of who is to like whom. In (1a), Joan likes Joan; in (1b), Joan likes Moira or some unspecified third party; in (1c), Moira is to like Moira; in (1d), Moira is to like Joan or a third party.

How do we come to understand these sentences this way? It obviously depends somehow on the difference between ordinary pronouns such as "her" and reflexive pronouns such as "herself," and also on the difference between the verbs "appear" and "appeal." But how? Whatever reasons there may be, I'm sure no one is ever taught about contrasts like this by their parents or teachers or anyone else. Yet this aspect of English grammatical patterns is deeply ingrained, much more so than the taught prohibition against ending a sentence with a preposition.

I can't resist another example, because it's so striking. There is an alteration called "expletive infixation" that many speakers perform on words of English under conditions of extreme exasperation, as in (2).

- (2) How many times do I have to tell you? I'm not talking about the *Allegheny* River! Can't you get it into your stupid head that I'm talking about the *Susque-goddam-hanna?*

Even if you're too refined ever to use an expression like this, I'm sure you recognize it. Now the interesting thing is that we have pretty clear intuitions about how to use this infix. It sounds natural in the examples in (3), but decidedly odd in those in (4).

- (3) uni-goddam-versity
 manu-fuckin-factorer
 (4) Jacken-bloody-doff
 cle-goddam-phant

In addition, for those words that allow us to use the infix, we are very particular about where it has to go. If we try moving the infix to different places in the words in (3) ("un-goddam-iversity," "manufac-fuckin-turer," etc.) we can see that only the versions given in (3) sound at all acceptable.

I'm fairly certain none of us was ever *taught* the principle (or pattern) that says where it is possible to insert an expletive infix into English words. Yet we readily use this principle to make intuitive judgments about new cases. At the same time, the principle is not so obvious to conscious introspection.

(In case you're wondering, the infix sounds right only when it immediately precedes the syllable of the word with main stress—"Susquehanna," "university," and "manufacturer." Since "Jackedoff" and "elephant" have main stress on the first syllable, there is no place to put the infix. But this is only a first approximation; there are further complexities that we can't go into here.)

We see, then, that much that we know about the grammatical patterns of English has not been taught. But this leads to a further problem about how children acquire language. Chapter 2 showed not only that we have a mental grammar, but that most of it isn't available to conscious introspection. Since adults aren't consciously aware of the principles of mental grammar (and the examples just presented provide further illustration), they certainly can't explain these principles to children—if children could understand the explanations in any event!

In fact, the most an adult can do is supply the child with *examples* of the patterns, in the form of grammatical sentences, or corrections to the child's sentences. For instance, notice that in the dialogue I quoted above, the mother isn't saying " 'Nobody' and 'not' are both negative words, and you shouldn't use two negatives in a sentence." She is just supplying the child with a correct *form*. This means that the child has to *figure out* the patterns of the language—that is, *the child has to construct his or her own mental grammar*. How?

Children are probably no more conscious of the patterns than adults. For instance, it doesn't make much sense to think that a child would confront sentences like "Joan appeared to Moira to like herself" by thinking "Hmm. I wonder who 'herself' is supposed to be. Well, 'herself' is a reflexive pronoun, so that probably makes a difference . . ." To be sure, children eventually learn the words "noun" and "verb," and maybe even "reflexive pronoun," but

usually not until the age of ten or so, long after gaining command of the grammatical distinctions these words refer to.

Even simpler phenomena show the disparity between children's command of language and their *conscious* command of it. For instance, by the age of three or four, children can be taught to count syllables in a word, but they are certainly making use of syllables long before that. Similarly, learning to read depends in part on being conscious of sequences of speech sounds, in order to sound out words. For many children, this is difficult at age six and even later; that's why *Sesame Street* spends so much time on it. But at the same time, children couldn't discriminate and understand thousands of words by this age—not to mention appreciate rhymes—if they didn't have a sensitive ability to discriminate and sequence speech sounds. (We will see in Chapter 5 how this ability is organized.) So we're evidently faced with the same problem for children as for adults: their learning is backed by unconscious principles that are unavailable for conscious introspection. And if anything, we're tempted to suspect that children's abilities at introspection are less well developed than adults'.

Where does that leave the learning of language? On the basis of what the child hears in the environment, and in the (near-) absence of teaching and of conscious awareness of what is being learned, the child manages to acquire a command of the grammatical patterns of the language—that is, manages to construct a mental grammar. This isn't the way we're accustomed to thinking of language learning. We usually think of it in terms of something like French class in school, a highly structured situation in which teacher and learner bring a lot of conscious attention to bear on rules and regulations. The child's learning of grammatical structure just doesn't seem to be like that. The child learns just by speaking and being spoken to.

As a result, we can draw another conclusion about human nature: *We can acquire unconscious patterns unconsciously, with little or no deliberate training*. Perhaps we shouldn't even call such a process "learning," but for lack of a better word, let's leave the terminology alone.

A suggestive parallel to the unconscious learning of language might be the process of learning to skip, which requires complicated patterns of muscle coordination. It's impossible to describe to a child how to do it; the best we can do is demonstrate. And when the child figures out how to skip, it will be impossible to get him or her to explain it. Rather, the process of constructing the patterns takes place