

# Re: unnatural languages

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- *From:* [hrrubin@xxxxxxxxxxxxxxxxxxxxxx](mailto:hrrubin@xxxxxxxxxxxxxxxxxxxxxx) (Herman Rubin)
  - *Date:* 15 Mar 2007 15:28:05 -0400
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In article <1173929324.317738.63840@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>, Peter T. Daniels <grammatim@xxxxxxxxxxxx> wrote:

On Mar 14, 5:25 pm, hru...@xxxxxxxxxxxxxxxxxxxxxxxx (Herman Rubin) wrote:

In article <1173823970.981242.310...@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>, Peter T. Daniels <gramma...@xxxxxxxxxxxx> wrote:

On Mar 13, 4:53 pm, hru...@xxxxxxxxxxxxxxxxxxxxxxxx (Herman Rubin) wrote:

In article  
<YE68kkJnro9FF...@xxxxxxxxxxxxxxxx>,  
Richard Herring  
<richard.herr...@xxxxxxxxxxxxxxxx> wrote:  
Few American college students speak  
reasonably grammatical  
English, and their writing is not much better.

By now, you are either deliberately lying, or you are utterly uneducable.

Possibly college students in language departments students, and have read letters of application by them.

Now you're growing simply incoherent. I have no idea what you just tried to say.

Every human being (barring severe brain damage) speaks their native language(s) "reasonably grammatical"ly.

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Not in my experience.

Equivocation on  
"understand". Knowing that  
a particular verb ending  
represents the pluperfect  
subjunctive is not the same  
thing as  
extracting what it means.  
One doesn't understand  
speech in a foreign  
language by consciously  
"looking up" each word in a  
mental primer.

One does not learn any concept by  
memorization. Do not  
confuse learning the grammar with  
memorizing the rules.

How dare you attempt to respond to Richard's argument by  
repeating his

I did it in a far more general context.

That doesn't make it any more correct.

own words back at him.

Learning  
the structure  
of French,  
or Hebrew,  
makes it  
possible  
not to just  
translate,  
but to  
internalize  
what is  
learned.

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That's not what "internalize"  
means, and learning \*about\*  
the structure  
of a language doesn't help  
one to be fluent in it..

It certainly helps in reading.

No, it does not.  
Even reading is mastered by children before "grammar"  
instruction

This is partly true, but it is not learned before  
a good part of the structure of the grammars of  
their languages have been internalized.

There you go with that nonsense again. That statement has no meaning  
whatsoever.

Most children learn most of their grammar before starting  
to read. They have a basis to learn more grammar before  
much reading, and this should make it easier to learn to  
read well, by having them use their knowledge of modifications  
to reduce the need to have individual items learned.

Learning  
to  
read  
is  
an  
activity  
quite  
distinct  
from  
language  
acquisition.

Is it? How about language acquisition by the  
deaf?

Are you suggesting that communicating via sign language is  
somehow  
like reading?  
Please learn something about something before you opine  
about it.

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Unclear.  
What is a  
language?  
There is a  
language  
of  
mathematics,  
which is  
entirely  
written;

Not a language in the sense  
that linguists use the word.  
How many times  
do I have to repeat this?

If everyone used the term "language" in the  
sense you  
are using it, world communication will  
decline.

splork

Most of the world's people  
have a very precise grasp  
of basic arithmetic, and  
know exactly who owes  
whom and how much, both  
in financial and moral terms.

I think you will find "basic arithmetic" not to  
be well  
understood.

As you very well know, Richard is not using the term "basic  
arithmetic" in the professional mathematician's sense of  
some obscure  
division of mathematics, but in the sense of adding,  
subtracting,  
multiplying, and dividing.

They know the operations, but often have little or no idea  
of what numbers, or the operations, mean. This in a  
particular individual started the "new math" program.

IT DOES NOT MATTER WHAT THEY "MEAN."

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On the contrary, this is what matters. If they know the meaning, there are various ways of getting the operations done. It is useless to know how to add if knowing when to add it not present.

Mathematics can be widely applied. To apply it, knowing the meaning is important, so that one can map the "real world" problem into a mathematical problem, and then use the power of mathematics to solve it.

When it comes to government, how many have a clear idea of what even they would consider a good form?

Was that supposed to be interpretable?

Yes.

Well, it isn't.

There are three levels of language involved in statistics. The immediate level is probability, which has its own concepts,

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very  
poorly  
understood  
by  
those  
learning  
by  
memorization  
and  
computation.

Not  
a  
language  
in  
the  
sense  
that  
linguists  
use  
the  
word.

Again, maybe the linguists should broaden  
their scope.  
Some scientists have, and this group is  
sci.lang.

Maybe the statisticians should start using words the way  
other people  
do.

Mathematicians, physicists, biologists, etc., have long  
realized that they cannot do their subjects by doing so.

So what? They constitute a vanishingly small portion of the human  
race, and they're entitled to their technical vocabulary. Just as  
linguists are. And when you rush in where linguists gingerly tread,  
you need to learn to use our technical terminology correctly.

What does "number" mean? When looked at carefully, there  
are several concepts here, at least two really basic ones.  
One can define the arithmetic operations without having  
a system of writing numbers, and will not understand them  
until one can do this.

WHO CARES????

You should.

Most people seem to think that statistics is merely a set of formulas into which data can be poured and will output the state of the universe. Only magic can do that much. They need to be taught that the size of a good random sample needed for a given accuracy does not depend on the population size if the population is large. They need to understand probability, and I assure you that this is NOT easy.

NO, THEY DO NOT. IT MAKES NO DIFFERENCE IN THEIR LIVES.

It certainly does.

If they  
cannot use  
that  
language,  
they will be  
unable  
to  
understand  
the  
concepts.

If they cannot use that  
\*notation system\*, they will  
be unable to  
understand the concepts.  
That doesn't make it a  
language.

Understanding the "notation system" is NOT  
enough.  
It is a language, rigid in grammar, but with a  
small  
but extendible vocabulary.

Nothing whatsoever to do with human language.

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It certainly does. What language do you think people in the various sciences use?

These days, mostly English.

English is primarily used for talking around the material. The important part is in technical vocabulary, and precise formulation, which is more mathematical than you think. In many cases, the technical material can be read without knowing the underlying language.

One is unlikely to get the technical vocabulary in the normal course of learning a language. For example, in a paper on efficient methods for multiple precision arithmetic, I got hung up on "Einheit". I could reject many uses of "oneness"; I did not know that it was used in German works on rings for "unit", which has nothing to do with "one", despite the English word being based on the Latin for "one".

Those who have only learned words as arbitrary sequences of characters, not subject to any phonic rules, will not be able to use the alphabet even for easy words. One of my former colleagues saw the word "rug" italicized as a word the seventh graders could not be expected to know. They just learn by rote a collection of words as strings of letters, with no restrictions.

Evidently you're not aware that linguists do not endorse the "whole word" method.

But many teachers do; see the letters to the editor in the March 13 New York Times.

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So what? Is anyone here defending "teachers"?

It seems you are suggesting learning languages in a very similar manner to the whole word method for reading.

This is also what is done in teaching arithmetic as a collection of rules for operations.

In statistics, they learn formulas, and apply them with know idea of the limitations of the formulas, or the desirability of using that formula in that situation. If someone has some data, and just adds, subtracts, multiplies, and divides almost at will, do you think the result will be meaningful?

If the data are the prices of the goods in their shopping cart, and they need to determine whether they have enough cash in their wallet to pay for the goods plus the sales tax, then absolutely yes. A vanishingly small portion of the population has any need for anything more advanced.

Wrong. The human body is sufficiently complex that medical actions should be taken by using the individual's preferences for the various outcomes, weighted by the probabilities. This applies to the whole population.

The patient does not need to know any of that. It's the medical team's job to explain the alternatives.

The medical team should (they cannot do all that is needed now) provide the probability distribution of the results for the various alternatives, adjusted for the idiosyncrasy of the individual and the individual's prior beliefs. This then needs to be combined with the individual's utility function to decide what is best for that individual, and finding a utility function often requires probability

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considerations. Finally, the whole thing is often going to require quantization and the use of computers to get the assessment.

Note that I included the individual's prior beliefs. These can make a fair difference in the medical team's assessment of probabilities.

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This address is for information only. I do not claim that these views are those of the Statistics Department or of Purdue University.  
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