Grammar: What's that all about?

Lifting the linguistic lid.

My title is '*Grammar? What's that all about?*', but I might better have called it '*Rools: Ar Thay Enny Uce?*" I hope you can begin to see a shape forming.

My aim is simple: it is to sow doubt. In the first instance, I seek to sow doubt about the teaching of formal grammar as a way to learn a language. More fundamentally, though, I seek to sow doubt about the teaching of linguistic rules of any kind, including spelling rules, as a way to absorb or improve language skills. More fundamentally still, I seek to sow doubt on the apparently self-evident notion that our minds' behaviours are rule-based – that we learn, then follow, rules.

From the outside, it certainly looks as if language is a rule-based system, but let's remember that it once seemed unanswerably obvious that the sun goes round the earth once a day, yet we now know that it couldn't and doesn't. From the outside, as I say, language does look very like a rule-based system. It seems absolutely obvious, from there, that our minds are filled with rules and are following rules. It seems self-evident that our minds have to acquire, recall and obey these rules when deploying language and that teaching them is essential to mastery of it.

They don't, and it isn't.

Where to start? First, I give you a few spelling rules.

"G usually says /j/ when the next letter is E, I or Y."

"In one syllable words with a short vowel sound we must double the last consonant before adding an ending beginning with a vowel."

"On Thursdays, when there's a R in the month, you add an e after words ending in T unless the T is doubled."

OK; I expect, and hope, that you noticed that the last rule is nonsense, but it's not much more bizarre than the two genuine examples, from a voluminous literature, quoted above it. It's roughly as dull, unmemorable, intimidating and *elsewhere* as they are.

The only spelling rule I know is the wretched "*I before e is no help to me*" rule. Let's use it as an example:

Like you, undoubtedly, I write all kinds of spellings - regular, irregular, simple, weird - without a thought. (Without a conscious thought, I mean, but that's another story.) I focus my attention, happily and wholly, on the content and likeability of what I'm writing. Then an I, an E and a C come along and I have to stop. I have to leave author mode and enter schoolboy speller mode. I have to

find, and repeat, the silly ditty and decide where those wretched letters go. Only then can I get back to my muse - if I'm lucky.

The word RECEIPT is a perfect illustration of a very important cognitive truth. I have no issue with that weird P, it just comes off my pen without thinking and without me having the faintest idea how it got there. The same applies to you, I expect. However, the far more regular CEI pattern has been forever sabotaged, for me at least, by drumming a rule into me.

It obliges me to be consciously aware of something of which, otherwise, I am cheerfully not.

And what is sauce for spelling is sauce for grammar, I think. Here's a couple more examples of rule sauces, from another voluminous literature. (And I'd like you to imagine you are going to be tested on them when you're done reading this.)

"The subjunctive mood can be defined as a verb form, or set of verb forms, that represents a denoted act or state not as fact but as contingent or possible or viewed emotionally (as with doubt or desire)."

"A fronted adverbial is when the adverbial word or phrase is moved to the front of the sentence, before the verb. When a fronted adverbial is used, a comma is usually placed after it. However, this is not true in every case."

How did hearing those grammatical definitions make you *feel*? - This is fundamentally important, I think. Did you feel empowered? Interested? Inspired? No? Nor did I.

So: I've finally arrived at the two questions I want to address.

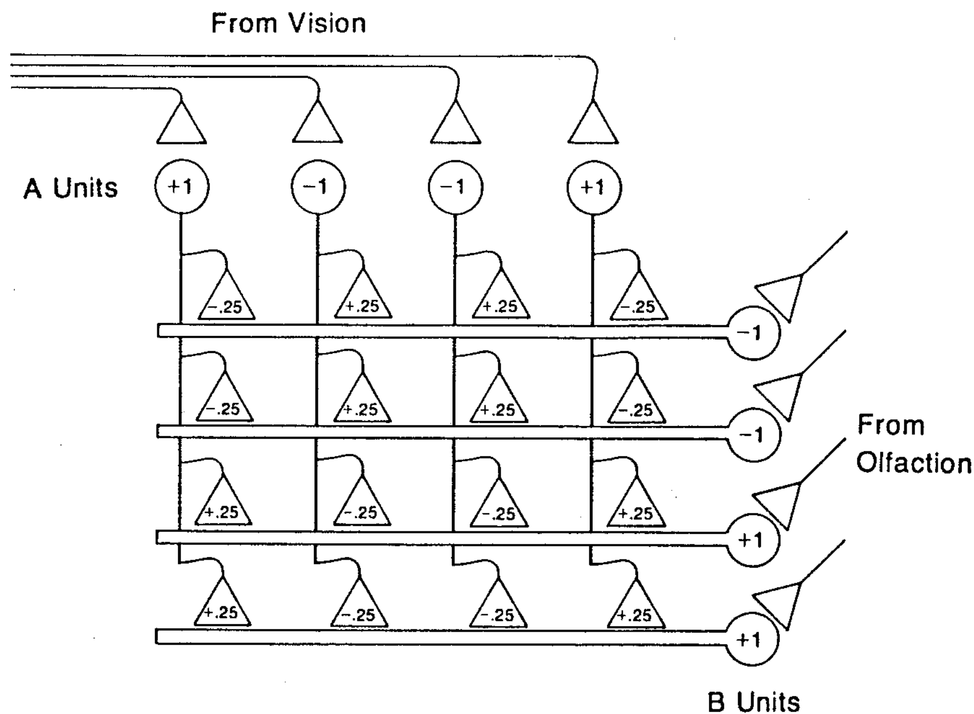
1: If our minds don't build up banks and banks of rules, how do they do stuff like literacy?

2: If we teach grammar, overtly, as a set of rules, what are we actually teaching?

We don't yet know very much about our brains, and our minds, but a few things do seem to be clear and probable. One of these is the general notion that the mind contains just one single 'rule' – known as the Hebb rule. This 'rule', or procedure, governs the basic methodology the brain is to deploy when it is learning something. Very roughly, and brazenly simplified, the Hebb rule states that "*whenever two things turn up together a little circuit associating the one with the other should be established*". For example, if we see a rose, and also smell it, the brain should form and fix a little circuit associating the sight of a rose with its smell. That's all we need to do. That's it. Job done. No need for further thought; no need for intellectualisation. There's no need to specify, or invent, a rule about roses, or smell, or smelling roses, and no rule has been either devised or absorbed.

In other words, unless we laboriously formulate rules and put them into our head, there are no rules in there – and we don't need any to learn or perform. The smell of a rose will elicit the idea of one, and vice versa, without any process or structure beyond the little neural net and Hebb rule.

We learn everything we learn by simple association, right down at cell level. We invoke, and require, nothing more than a little circuit formed in accord with a simple behaviour.



A pattern associator net. (Rumelhart & McClelland 1986 p. 34.)

People write of 'pattern associator networks' perhaps rather like this one; tiny networks of synaptic connections between neurons (from, in our example, vision and smell) which learn to associate A with B because they reliably turn up together. The maths may be complicated but the principle is not. Such tiny networks are established by the zillion and they learn the zillions of associations, patterns of associations and patterns of patterns of associations which make up our actual or mental environments. These networks, and the general Hebb rule dictating their formation, are all we need to learn everything we learn, and to recall, associate or do everything we do. Like so much in biology, it's really quite simple, but it's really quite simple in unimaginable quantities and among unimaginably interconnected networks.

In other words, what we have in our heads is probably an uncountable number of simple associations between things. Little circuits by the zillion, each linking this with that. Using the learning of the pluperfect tense as an example, as toddlers we must have heard Mum using a pluperfect tense when such a tense was situationally appropriate. We heard the particular pluperfect pattern of words we already knew, and we could feel that it was associated with a highly particular sense of the past, a highly particular temporal situation, which we already understood. The pluperfect tense can

be learned simply as that association between words and temporal feelings, right down at 'unknowing' nerve cell level. We needed to 'know' nothing of the pluperfect tense and its apparent rules at this time, even though we began to use it accurately from then on. We were not old enough to consider how and why we should use it thus, but we would perhaps have said it 'felt right'. It's how it sounds in every grown-up mouth and they always get everything right, after all.

Perhaps we *feel* when it's right because it's nice when those little circuits agree, and we learned to form them simply by listening to swathes of language embedded in their context, as babies and toddlers, long before we could understand grammatical concepts.

Grammar is absolutely not, as one definition has it: "*A set of rules that allows people to form and interpret words, clauses, phrases and sentences.*" No, it isn't a set of rules. It's a huge collection of 'grammatical' linguistic behaviours associated with their real-life environment such that language can fit with reality. We hear Mum saying "It's time for bed!" and we make, or reinforce, a wee circuit between a simple present tense uttered and an actual present - a 'right-now-time' to be shuddered at, and contested.

The impressive collection of these innumerable, but reliable, associations we eventually come to own thus gives every appearance of a set of rules, but none of these are, or need to be, in there at all. Our language behaves in close and consistent accord, time after time and in context after context, with what is expected, and what works, in every circumstance. But this is not because we are obeying rules. We know few, or none at all. (I speak for myself, of course.)

The 'rules of grammar' elucidated over the years of linguistic observation and analysis are thus revealed as post hoc. The language and its patterns came first, and the illusion of a rule-based grammar somewhere in our heads came only later, when we were taught about it.

In other words, rules are *unnatural*. Unnatural things feel wrong. They elicit fear. They agitate foundations. They are inherently aversive. We do not easily learn them.

Rules are illusory and the illusions are post hoc. It's not how we do it.

And what did all those overt, formal grammar lessons I suffered actually teach? (I should stress that this is a personal memory from a very distant past.)

Did we learn to deploy our language precisely and elegantly? No, we did not. Did we learn to love it and revel in reading and writing? No! And no! Did we, then, actually learn any grammar? No! I remember a little of the jargon but the meaning of these, and all the rest, is irretrievably gone. Oddly, this ignorance seems to have no practical effect. We all deploy our language wonderfully well, notwithstanding.

So what did all that formal grammar teach us? Mostly, I think, it taught us *negative affect*. (Negative affect is very educationally important, but that's also another story.)

We learned many peripheral things: we learned that English was complicated and threatening; that it was difficult and dull. We learned that we were not good at it, and not the sort of

people who were ever likely to be good at it. We learned to be afraid of it, and we learned to be anxious about it. We learned to dislike it. We were looking at English through the wrong end of the telescope; we saw a distant, obscure mountain but not the joy and excitement people were experiencing on its lovely slopes. Overall, it made English seem spiky and unfriendly - just something else to get wrong.

I wonder if that resonates with anyone? And I wonder if it remains in the distant past?

Here are some words penned by William Davies in the February 2022 edition of The London Review of Books. He writes about his 8-year-old daughter's schooling now, today:

"*… the invitation to write autonomously, beyond a sentence or two, never arrived. It wasn't merely the emphasis on obscure grammatical concepts that worried me, but the treatment of language in wholly syntactical terms, with the aim of distinguishing correct from incorrect usage. This is the way that a computer treats language – as a set of symbols that generates commands to be executed, and which either succeeds or fails in that task*."

I think, if we step back a bit, we can see that formal grammar is, in the best phrase I can think of, not '*where it's at*'. The famous fronted adverbial, for a topical example, is profoundly elsewhere, to the 8-year-old girl, to the rest of her class, to her father, and to me. It's just not 'us'.

Having said that, it depends a bit on what you mean by 'grammar', of course, and I suspect it depends at least as much on how it is taught. Andrews *et al*, (2006) in a much-referenced article, review previous research (of which they didn't seem to find very much which they considered reliable) and conclude that "… *there is little evidence to indicate that the teaching of formal grammar is effective*". Jones *et al*, (2013) in another much-referenced article, are a little more sanguine. they claim "*… a positive effect on writing performance [but that it] benefits able writers more than weaker writers.*" They found it had what they call a "*neutral effect*" on below average writers.

Quite thin gruel. A bit of a mixed and underwhelming bag.

However, all is not necessarily lost. The demotivating grammar I was exposed to was prescriptive grammar. (Old-fashioned grammar as enforced, in the UK, by Education Secretary Michael Gove, back in the day.) Prescriptive grammar looks at how language should be used, according to 'the rules', with the emphasis always on that finger-wagging 'should'. It divides language into just two categories - correct or incorrect. To such an approach, these two categories seem to be what's most important about writing and even what writing is about. It's explicitly about rules, and absolute obedience to them. It's explicitly what English is.

Cognitive psychology, with its proposed pattern associator networks and direct, cellular-level learning, seems to tell us that teaching and learning prescriptive grammar obliges the mind to grapple with language, to behave linguistically, in ways it would not if it was left to its own devices. I think we can be confident that that's a very bad idea.

That's prescriptive grammar, with whiskers, a high collar and a silk top hat, but there seems to be a slight, but detectable, trend towards a more humane creature known as descriptive grammar.

More modern thinking is coming round to (and I quote from Jones et al) *"… contemporary linguistic theories which are descriptive and socio-cultural in emphasis, functionally oriented, related to the study of texts and responsive to social purposes."*

In other words descriptive grammar is based in personally significant, real-world writing produced in, from and for a real world and aimed squarely at a genuine meaning. It's language in use; language as empowerment, not grammar as threat.

And modern language immersion classes, of course, recognise this and teach language as the plethora of consistent patterns and ringing linguistic music that it actually is. They teach it in the context of meaning, and they teach it as a tool, embedded in social purpose. They use, and play with, language in realistically imagined social settings. Their sessions may be cunningly set within a particular grammatical framework (often a particular tense) but the students will not be told anything about this. It will be kept from them, so will not be their focus and will not enter their minds as an issue to be learned, an issue to be aware of or an issue to be anxious about. The students will learn how the new language 'feels' – or, perhaps better, how it 'tastes'. They will learn it very simply, very swiftly and very reliably, with pleasure, but they will continue to live, like I do, in perfectly contented, exceedingly practical ignorance of any of its grammar.

References

Andrews, Richard; Torgerson, Carole; Beverton, Sue; Freeman, Allison; Locke, Terry; Low, Graham; Robinson, Alison & Zhu, Die. (2006) The effect of grammar teaching on writing development. *British Educational Research Journal* 32:1 39-55.

Jones, Susan; Myhill, Debra & Bailey, Trevor. (2013) Grammar for writing? An investigation of the effects of contextualised grammar teaching on students' writing. *Reading and Writing* 26 1241-1263.

Rumelhart, David, E., McLelland, James L. & the PDP research group (1986) *Parallel Distributed Processing: Explorations in the microstructure of cognition. Vol. 1. Foundations.* London. MIT Press.