

Re: Finding useful functions– part 1

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From: David Longley (*David_at_longley.demon.co.uk*)

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In article <+Xqwk5Kq+VhBFwhk@longley.demon.co.uk>, David Longley <David@longley.demon.co.uk> writes
>In article <FeqdnaaiD9dOqRjcRVn–hg@metrocastcablevision.com>, Bill
>Modlin <modlin1@metrocast.net> writes
>>
>>"Wolf Kirchmeir" <wwolfkir@sympatico.ca> wrote in message
>>news:r39hd.6043\$OD3.108863@news20.bellglobal.com...
>>
>>> I earlier said I was uneasy with the distinction between
>>development
>>> and learning, since much development requires external inputs. On
>>> reflection, IMO we should distinguish between:
>>> a) NN changes controlled by external, fed back inputs (supervised
>>> learning, or operant conditioning);
>>> b) NN changes caused by external inputs (unsupervised learning, or
>>> classical conditioning);
>>> c) NN changes cause by changes in the NN itself (???)
>>development???)
>>
>>Excellent. And "development" seems as good a word as any. If we
>>use the word "learning", it would seem to apply to the first two,
>>the ones dependent on inputs, and not to development except perhaps
>>by a poetic stretch.
>>
>>Of course, in practice these 3 kinds of changes are often all going
>>on at once in the same networks and even in the same cells, and they
>>may share mechanisms in common. So it can be difficult or perhaps
>>even pointless to try to say just which is responsible for some
>>changes... generally they all contribute in their subtly different
>>ways to the behavior of an organism. Even "input" is fuzzy... is
>>locally generated random thermal noise an "external input"? Is a
>>signal from spontaneous firing of a cell an "input"? It depends on
>>ones purpose, there is no "correct" answer.
>>
>>Nevertheless, I find that the distinctions are worthwhile for they
>>guidance they provide for constructing systems that change in
>>ultimately useful ways. If we are to have operant conditioning, we
>>have to include special mechanisms to induce changes in response to

>>particular inputs treated as reward or feedback, distinct from those
>>other inputs which are causally connected to the outputs from which
>>the feedback is derived. If we are to have classical conditioning
>>or other forms of unsupervised self–organization, we must have
>>mechanisms such that changes are induced by the processing of any
>>inputs to produce results, not requiring a separate privileged
>>class of inputs designated as feedback or reward. If we are to have
>>development independent of inputs, we must have mechanisms which
>>change the system over time in accordance with some predetermined
>>plan.

>>

>>Again, this posting is good news. Excellent.

>>

>>Now perhaps we can talk about a few more details of how these things
>>might be implemented?

>>

>>Bill

>>

>

>Not to pre–empt Wolf, but let me remind you of the section on ANNs in
>"Fragments" <<http://www.longley.demon.co.uk/Frag.htm>>. What was that
>all about? What's *wrong* with ANNs? What's wrong with our folk
>psychology? What's wrong with people?

>

>Why are people prejudiced? What's wrong, for instance, with concluding
>from the –2SD mean IQ of sub–sahara Africa relative to the UK mean, or
>the –1SD mean IQ of African undergraduates, or USA Afro–Carribeans that
>blacks are less intelligent than whites and whites are less intelligent
>than yellows (East Asians)? Is anything missing? If so, can you tell us?

>

You notably haven't responded to the second point. There's a profoundly critically point within it which you shouldn't worry too much about having some difficulty with grasping (though that doesn't mean I will tell you). As it is, I suspect you (and many others here) haven't a clue what I'm talking about. That's because it's representative of something worthy of serious, critical self–analysis, and it *is* something I have covered before.

In your reply, you assert that I generalise to the point of being irrational. That's a very bold assertion, but as stated it's *only* a bold assertion (i.e. nefarious rhetoric in my book). As far as I know, all that I have said is sound, and to date not refuted (and I don't refer to folk in c.a.p, although I would take what Glen, Wolf and sometimes even you <g>, seriously). I just try *not* to keep repeating the evidence as I've already done so ad nauseam to no avail not to mention tedious criticism That's very much my point of course. The evidence often doesn't matter because most people behave like idiots and don't pick up on it. This is something that many, sadly, are only too happy to count on (as I'm sure most folk reading this and thinking about their *current* concerns will appreciate)

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I think you should state your evidence or make an effort to listen more carefully. Assuming that latter, what was wrong with your post? Let's see you do you can set an example for less "enlightened" others <g>.

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David Longley