

Re: Neural netss (was Re: death of the mind.)

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Wolf Kirchmeir <wwolfkir@sympatico.ca> wrote in message
news:<gAy5d.1973\$MD5.21482@news20.bellglobal.com>...

> >

> > *If we are to talk about electronic devices, it might help to think of
> > the brain as a PAL (programmable array logic) rather than a Von
> > Neumann computer. Then the signal energy comes in through the sensory
> > neurons, filters through the interneurons, and comes out as a motor
> > act. (Majendie's Law) No magic, just circuitry.*

>

> *That looks like a Better Idea, all right. Just how complexly
> interconnected can one make the elements of a PLA? Does each element
> have a single input and a single output? If so, it's not IMO complex
> enough to do what biological NNs do. See below.*

>

Neither approach is very good. Obvious for the von Neumann approach.
Also, PLA's and PAL's are not all that powerful. Made for implementing
small sets of combinational logic is all. A few inputs and a few
outputs. I seriously doubt the brain is a combinational logic machine.
Misnomer still extant from McCulloch+Pitts original 1943 paper. The
first sentence of the paper starts out badly

"... Because of the 'all-or-none' character of nervous activity,
neural events and the relation among them can be treated by means of
propositional logic ..."

Time to move on. Interesting that McCulloch was an M.D., if I'm not
mistaken.

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> > *Now we have to think how we should abstract groups from this amorphous
> > mass of interneurons. We can talk about motor program generators,
> > initiators, and controllers--not word processing. What circuitry do we
> > need so that a motor program generator can be modified by experience?*

>

> *Feedback _networks_ (not simple loops.)*

>

sci.cognitive: Re: Neural netss (was Re: death of the mind.)

Good answer. Had "I" made it, King David would be bouncing off the walls again, about now. Good to see so many people are picking up on the feedback thingie.

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