From: Joichi Ito < ███████ >
Sent: Saturday, June 6, 2015 2:35 PM
To: Jeffrey Epstein
Subject: Re: Direct Germans

Can I call you from the car in 1 hr?

> On Jun 6, 2015, at 10:31 AM, jeffrey E. <jeevacation@gmail.com> wrote:
>
> 212 772 9416
>
> On Sat, Jun 6, 2015 at 10:24 AM, Joichi Ito < ███████ > wrote:
> I again feel like maybe I need to study math. I only know enough to =escribe non-messy things. How do I start?
>
> > On Jun 6, 2015, at 10:22 AM, jeffrey E. <jeevacation@gmail.com> =rote:
> >
> > math is a notation that tries to describe messiness. the more =olistic. shape. mouthiness. is a more elegant way of descrining =ertain concepts and mouthiness for a characteristic of food   (temp =hewiness. tastes)
> >
> > On Sat, Jun 6, 2015 at 10:11 AM, Joichi Ito < ███████ > wrote:
> > Turns out membrane proteins are also amazing molecules for color =A6 colors of light change their geometry which our nerves can sense. =t's interesting how color goes from light -> molecular geometry =hange -> electrical energy in neuron -> shapes in visual cortex -> =hapes in our brain.
> >
> > Sorry, I'm still at the wrong scale, but...
> >
> > The math part is interesting. How do you think neurons and biology =ap onto our brain? Brains seem pretty messy compared to math.
> >
> > - Joi
> >
> > > On Jun 6, 2015, at 9:49 AM, jeffrey E. <jeevacation@gmail.com> =rote:
> > >
> > > ive had a lot of back and forth with chomsky .   the description =f some of these things that category theory helps frame is really =eautiful. .   coherence, is a pretty and contiguous shape, =ymmetries. make it both simple and complex. . taking the donut and =wisting it into a know changes its topology and mathematics.   Im =fraid I can begin to make the case for feng shui, .   doesn't make me =appy but it can be organized into a symphony of light modulated inputs. =. (I know its sounds a but woo woo. but it has serious math behind =t.
> > >
> > > On Sat, Jun 6, 2015 at 9:39 AM, Joichi Ito < ███████ > wrote:
> > > Maybe this is too microscopic, but Ed's work on =round-truthing science - the physics behind the biology and =huguang's work in understanding membrane proteins will probably =elp us understand cellular communication including the use of proteins =nd possibly other forces like magnetics and electrical and more crazy =hings.
> > >
> > > I was remember the picture you had about the cells communicating =s an model of "pricing" of "value". The =hing is that the cells communicate and transact using proteins that =nteract with cells via membrane proteins. We have only discovered 500 =embrane proteins so far and the human genomes encodes for 8000 of which =e only have discovered 20. I'm not positive, but I think =nderstanding these membrane proteins will unlock a bunch of really =nteresting

networks of communication both in the brain and between =uman beings that we don't understand yet. Shughuang has part of =he key, which is a way to identify these non-water soluble proteins =sing what is called a QTY conversion. Not sure if you're =nterested, but when we meet next, I should sit down and explain it to =ou if you don't already know. It's pretty fascinating. =n addition to figuring out how cells signal and how the networks of =roteins in our body work / environment work, this also unlocks many of =he secrets to smells.

> > >
> > > I din't know this but it turns out that we have 5-10 =ifferent
> > > membrane proteins per "odorant" that detects =ittle parts of the
> > > bigger odorant molecule and they do this very fast. =ach membrane
> > > protein senses part of the structure and they create an
> > > =eurological signal based on this pattern and we figure out the
> > > smell =A6
> > >
> > > And the company we invested in, O2H is called O2H because the key =o understanding membrane proteins is to make the non-water-soluable =embrane proteins, water-soluable by converting the certain amino acids =hich retains the structure but changes the solubility so O2H is sort of =E2 water reversed". O2H has all of the commercialization =ights to this field of study.
> > >
> > > But... more broadly...
> > >
> > > there is one sort of random "sense"... it =urns out that we have a cluster of nerves in our optic nerve that only =ense blue light that sets our circadian. That's why they say =lue light affects mood and jet lag. These nerves have nothing to do =ith the nerves that we "see" with.
> > >
> > > We know for a fact that magnetics and electrical signals affect =he brain so I'm sure we can "sense" these.
> > >
> > > Have you heard of people who put super-magnets in their fingers to =ense metal?
> > >
> > > =ttp://io9.com/what-you-need-to-know-about-getting-magnetic-finger
> > > -imp-813=37993
> > >
> > > Tenzin would probably have some good thoughts on this.
> > >
> > > I also have a very smart guy who is trying to convince me that =his works:
> > >
> > > > http://tinyurl.com/qfoafft
> > > >
> > > http://tinyurl.com/nv8thk6
> > >
> > > - Joi
> > >
> > > > On Jun 6, 2015, at 8:49 AM, jeffrey E. <jeevacation@gmail.com> =rote:
> > > >
> > > > my question , for today is how many senses to we really have.? = what are their ranges.   do we sense infrared. without awareness. . =torm brewing etc.
> > > >
> > > > On Sat, Jun 6, 2015 at 8:45 AM, Joi Ito <███████████> =rote:
> > > > I remember Martin asking me some question about why Asians =on't say answer things directly.
> > > >
> > > > Here's sort of an answer to the opposite question. :-)
> > > >
> > > > >> =ttp://www.quora.com/Why-are-Germans-so-nosey/answer/Yves-Gra

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> > > > >> nger
> > > >
> > > > - Joi
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> > > >   please note
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3

<?xml version=.0" encoding=TF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version=.0">
<dict>
        <key>conversation-id</key>
        <integer>113854</integer>
        <key>date-last-viewed</key>
        <integer>0</integer>
        <key>date-received</key>
        <integer>1433601297</integer>
        <key>flags</key>
        <integer>8590195717</integer>
        <key>gmail-label-ids</key>
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                <integer>6</integer>
                <integer>2</integer>
        </array>
        <key>remote-id</key>
        <string>512815</string>
</dict>
</plist>