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**From:** jeffrey E. <jeevacation@gmail.com>  
**Sent:** Wednesday, June 24, 2015 10:43 AM  
**To:** Noam Chomsky  
**Subject:** Re: Re:

1. do you have any specific questions for him? =C2 he thinks its not going in the right direction. =A0 ie. bibi, not stro=g enough to make tough decisions. . ehud trusts hamas more than abbas. I know you dont like telephones but w= could set up a text exchange if you wanted to.

2. more importan=

I use my coin flip analogy often. ie. . single cell experim=nts, like looking through a microscope at my coin , measure its cont=nt it moment, its shape , all trying to figure out why the res=lt after a long while is always the same -equal number of tail= and heads. a consistent result. no algorithm , no comp=tation . Why i am pushing you on this , is that i firmly=believe that language needs a theory, cognitive science =eeds a theory, your minions and intellectual offspring are like =A0 bio engineers --they will be able to mimic some of th= behavior , yes it is amazing but not interesting. you have th=ught long and hard and more importantly have seen what does NOT work. =A0 einsteins =hought experiments led to truly remarkable results in physics. Im hoping that resu=ts like that can be achieved for biology

On Tue, Jun 23, 2015 at 11=05 PM, Noam Chomsky <[REDACTED]> wrote:

Have a good weekend. I wonder what he=thinks about where the state is heading now.

We'll probably be at the Cape= in Wellfleet, if we can make it.

Maybe there are miracles, but I think=more prosaic approaches yield rich results in domains like vision (Marr =80 s main concern) and language. Like some of those I've mentioned. I don't see how to progress in other=ways.

From: jeffrey E. [mailto:jeevacation@gmail.com]  
Sent: Tuesday, June 23, 2015 10:20 PM  
To: Noam Chomsky  
Subject: Re: Re:

1 you are a treat and=I very much appreciate your non finance views.): 2 ehud barak will b= with me for the weekend in ny. not sure where you are?

Marr , -try , probability , symmetry. ent=opy. it might look like computation but it is not. it mi=ht look like algorithm but it is not. the flip of a coin does not co=pute, have an algorithm or a mechanism. though it might look as if

it does. it is not an input system, there is not mechanism driving the heads and tails towards equal numbers. , there is not nature looking to see what the previous results were and computing the next result. like our ug it is more of a miracle.

On Tue, Jun 23, 2015 at 9:54 PM, Noam Chomsky <[REDACTED]> >> =rote:

I wouldn't take the term "mechanism" too literally. It refers to whatever is taking place in the brain. For some, as most of those in the Nowak group, it means neural nets. For Gallistel, it's processes internal to the cell. Useful to look at these matters in terms of Marr's three levels: computation, algorithm, mechanism.

From: jeffrey E. [mailto:jeevacation@gmail.com]  
Sent: Tuesday, June 23, 2015 9:46 PM  
To: Noam Chomsky  
Subject: Re: Re:

1 will do , by the way new housing starts were the highest in 7 years. the mortgage interest deduction cheerleaders , ( not me ). are thrilled.

2. i am willing to be convinced, as always=/>

3. my admittedly naive point is that "mechanism", I believe, is the wrong concept. driven in error, by the machine -computer analog since the early 1900s . instead =A0 think of probability , it is not a mechanism

On Tue, Jun 23, 2015 at 9:05 PM, Noam Chomsky <[REDACTED]> >> =rote:

1.=C2 Not a trivial matter. I'm not the=best person to ask. I'd suggest contacting people who =99ve really thought seriously about these issues, like Robert Pollin, a f=ee independent economist at U Mass Amherst

2.=C2 Sherman's speculation is an interesting extension of recent discoveries about conservation, deep homologies, regulatory circuits, and other elements of what's sometimes called "the evo-devo revolution." It remains to be seen whether anything can be done with it. I think you underestimate the contributions of Berwick and his students, including Yang.

3.=C2 The idea that there is a "ug" for vision, language, etc., seems to be essentially what Randy Gallistel calls "the norm in neuroscience," quoted in the paper on modularity =hat I sent you. And yes, they're

certainly connected, at least at the level of cells, and presumably well beyond. These are live and significant research areas. These "central modules" do not have input or output, but they are accessed by input systems and in some cases, like language, by output systems. That seems a fair picture of the rough cognitive architecture. I don't follow the rest. It's true that work on human language uses as evidence what is available, namely performance. And much of the work unfortunately is fascinated by the droppings, just as in other fields. At But there is some work that seeks to discover the mechanisms, as discussed in the papers I sent you.

From: jeffrey E. [mailto:[jeevacation@gmail.com](mailto:jeevacation@gmail.com)]  
Sent: Tuesday, June 23, 2015 7:52 AM  
To: Noam Chomsky  
Cc: [REDACTED] >  
Subject: Re: Re:

1. if you would design a fair tax system. At what goals would you suggest. I've been researching how to start a new financial system for Zimbabwe. It's now so broken it presents a clean petrie dish, exchange rate of a billion billion dollars At equals one US dollar

2 berwick and yang. clever. solution hunters, . not sure if question raisers ,sherman better

3 . taking sherman work . and my conjectures At ug's would be genetically created =C2 modules of "sense makers. " structures that were able to separate sense from non-sense. I think there would be a ug for vision . smell etc and probably similar or=connected in some way.

in previous emails I have been referring to "shapes" as a metaphor for those structures. shapes do not have an input /output . a failing of the computational analogies.=C2 let me try this , a cell membrane , has a shape, it separates inner from outer. it is easy to see what is inside or not. the shape of the membrane is determined solely by a probability distribution. nothing more. The tons of works on spoken language seem in vain to try to make of the mechanism from a minuscule sampling of=the combinatorics . silly. in the elephant and the blind man story , they are not even close to touching the elephant they are fascinated by its droppings.

On Tue, Jun 23, 2015 at 12:28 AM, Noam Chomsky <mailto:[REDACTED] " target="\_blank">> wrote:

I wouldn't dare to run the show for money 101, but I'm sure I would learn a lot by sitting in.</p>

It's true that grammars stand=outside of time, a fact that many linguists and psychologists don't understand. There are suggestions of something like a "universal UG," though not couched in just these terms. Notably Michael Sherman '99's theory that a universal genome appeared at about the time of the Cambrian explosion, and all forms of life are minor variants of it.

From: jeffrey E. [mailto:jeevacation@gmail.c=m]  
Sent: Monday, June 22, 2015 12:06 AM  
To: Noam Chomsky  
Subject: Re: Re:

1. dont you have any =uestions about money. . ? ? finance. . =? I owe you some knowledge .

2 .to say the shape c=n be" decribed " by language is redundant. =AO

the "shape"=is the metaphor for an n-dimentional object , it stands outside of t=me. as do grammars , but sentences do not, they require time. = the shape is somewhat like a fitness landscape? contrasted with communication which also requires = time dimension and biology that needs and uses energy . =AO I suggest the mammal UG is a subcategory of all UG.s = and that as biology prefers redundancy . the other modules, ie vision =AO are small distortions of it.

3. during that UN period I often give a "=C2 money 101 to world leaders who have in many case. . little kno=ledge of a subject to which they give many speeches and policy directives=C2 , as they only have experincies such as that of a g=neral , a politicitain, in some instancees a disk jockey, befo=e having to run their country. I would love to consider =ome of what you thought was " fair " . with regard. =C2 allocations. if you were running the show.

On Sun, Jun 21, 2015 at 11:13 PM, Noam Chomsky << href=" [REDACTED]"> wrote:  
target="\_blank"> [REDACTED]

I follow up to the point where you wr=te "the organizing principle of the shape is language... =80 No doubt it can (partially) be described in language, but that's not what y=u mean.

Zipf's law is a rank-frequenc= distribution. And also meaningless, as Mandelbrot showed 60 years a=o. I hope Yang is clear about this. He surely knows.</=>

Noam

From: jeffrey E. [mailto:jeevacation@gmail.c=m]  
Sent: Sunday, June 21, 2015 2:48 PM  
To: Noam Chomsky  
Subject: Re: Re:

it is my failing not =ours. the old math requires numbers . too li=iting. ( we can put a metric overlay on later in the chain) i=agine a shape in real space. it is readily apparent if a line either fits on

the shape or not . how=do you know. ? you compare the line with the shape. =A0 your visual system allows the mental shape to either map onto or not =A0 onto the shape in a coherent manner. the shape is not an input =A0 device ,it is an object . the organizing principle of the shape is la=guge, the shape is a collection of grammars. line= on the shape are either coherent or not. coherent ones are le=itimate sentences .

yang is flexible in his use of the term probability.=. for example he in a number of papers refers to zipf as a probabiltiy dis=ribution. i have checked a number of his papers after your last remark, I think it is a mistake. he m=ans that after empirical measurement . for ex word frequency,=C2 . if ten times out of 100 the corpus has the word x. =A0 then he describes the probablility of finding the word as 10 perc=nt . this is not correct. it is only the probablility of finding the word in the=frequency list . but he is very accomplished at mathematical m=dels.

On Sun, Jun 21, 2015 at 1:03 PM, Noam Chomsky <[REDACTED]>

<mailto:[REDACTED]> > =rote:

Interesting image, but I don'= see what it tells us about language.

The problem looks to me like this, ro=ghly.

Take, say, the human visual system.=C2 There's a genetic component that determines that humans will=have a mammalian and not an insect visual system, and much else. Same wit= other subsystems of the organism – “organs,” =80 modules.” Language in particular. The technical name fo= this component, whatever it turns out to be, is UG. UG therefore de=ermines that certain systems are possible I-languages for humans, others are not. =I presume that is what the “biological organizing principle =9D for language is. It's plainly not an input system, though=it determines possible input systems for human languages. I don =80 t see how we improve understanding by looking at it from this perspective.</=pan>

A minor technical problem, not serious, has to do with distinguishing digit= infinity from continuity, like continuous lines on the surface of a hemi=sphere.

I think you'll find Yang inte=esting.

Noam

From: jeffrey E. [mailto:jeevacation@gmail.c=m]  
Sent: Saturday, June 20, 2015 10:52 PM  
To: Noam Chomsky  
Subject: Re: Re:

1. I will wait on vale=ia. we can craft a fun few days

2, try this on but only if you get a moment , i know you =re busy

it appear to me that ""language" can be defined as the=C2 biological organizing principle that creates a shape spa=e. "coherent sentences " are defined as those that f=t on the shape. The projections on the sensory motors, allows commun=cation. . There are an infinite digital number of sentences.that do fit on the shape , but=orders of magnitude more, that do not fit.- to attempt a naive=representation, imagine a hemisphere, ( symmetric), =A0 any continuous line drawn on its surface , is a sentence. =C2 there are infinite numbers of lines that can be drawn. however , try=ng to connect two points , directly without traversing the hemishpere =A0 is also infinitely possible but most solutions need to leav= the surface. The principle that organizes the shape is NOT an input device. one can map inputs onto the shap= but it is not THE shape , ex, a hemisphere bowl in 3 =pace, analogy, one can put marbles in the bowl and they will map a p=th to the bottom. but the shape of the bowl . determines how f=st they move, and in which direction, . the shape of the bowl is the language= there is a shape for vision as well. = it exists without input, certain paths are more probable etc.

3. I will contact Yang

On Sat, Jun 20, 2015 at 10:41 PM, Noam Chomsky <<= href="mailto: [REDACTED] >=wrote:

Valeria's not here right now,=so will have to check with her about late September. Really intrigui=g possibilities, and a delightful offer.

On Yang, I read his work quite differ=ntly. He does make use of word frequencies and probability distribut=ons, but as far as I am aware in pretty straightforward and innocuous ways. =A0 And he's quite sophisticated about these matters. Smart and int=esting guy. You might want to contact him directly.

I don't recall his using Zipf=E2 s "laws," but it wouldn't matter much. =A0 Mandelbrot showed back in the '50s that they were a statistical artifact, near meaningless. =A0 I was, incidentally, surprised to see how he dealt with this result in =is autobiography. I think he called it his "Keplerian moment=" or something like that.

Noam

From: jeffrey E. [mailto:jeevacation@gmail.c=m]  
Sent: Saturday, June 20, 2015 12:10 PM

To: Noam Chomsky  
Subject: Re: Re:

I think you might try to plan on late september , ta=ing my apt and spending a few days with valeria in the city, A= it is the opening of the UN general assembly , as well as the Clinton global initiative. New york is rife with people with a= least influence, if not new ideas. . I , we. can organize man= fun interactions. my house becomes a respite for the select f=w, to take off their ties , and talk openly. You would be welcome to join as many create or participate as you prefer. =A0 yangs work deals with language as signals . his reli=ce on Zipf like distributions is a good example of naive probabilities. .=C2 empirically zipf appears. but cannot be derived from any of his or anyones elses to date. so somewhat misleading to suggest the&=uot; probility of word , x appearing, " it is the =istake of frequency vs probablity, and careless common usage.=u>

On Sat, Jun 20, 2015 at 11:44 AM, Noam Chomsky <<[REDACTED]>>; wrote:

Sounds like a most interesting person= And someone it would be very interesting to talk to. I presum= he spends time in NY. Hope we can work it out.

Would be interested in learning more =bout your critique of the use of probability in language work, mostly by computational cognitive scientists, as far as I know. I =80 ve written critiques of it too, but on different grounds: failure to =ccount for what they are trying to show, or even to understand the issue.=C2 There are, I think, some notable exceptions, like the recent work of Charles Yang, one of Bob Berwick's student=.

From: jeffrey E. [mailto:jeevacation@gmail.c=m]  
Sent: Saturday, June 20, 2015 8:22 AM  
To: Noam Chomsky  
Subject: Re:

He is the head of the human rights court in strasbou=g. / former prime minister of norway. . . He=would be happy to have a dinner with us. . subj. =C2 drones. solitary confinement , death penalty ( europe does not have one , so if killing terrorist= is to be under an act of war, argument , then they, as enemies ,hav= war rights. ). tribalism, mafia, syria, ukraine, saudi, egypt. =A0 libya, . We have a great friendship. - I give him his financial ABC's class. he gives me my pragmatic =olitics lessons. fyi great similarity now as the old political=guard seem toreflect the patterns of the old long term=C2 investors, ( skills of . planning. executing . =A0 etc ) now confronted by media . and pressured to make quick decisions. ie behaving =A0 like inexperienced short term traders. fyi I h=ve read a great number of language papers. many if not most, m=suse the concept of probability . making naive, erroneous uses of th= word , hence forming nonsensical conclusions. ( like the silly , life on =ther planets " calculation". probability needs repetition =nd symmetry, historical events do not have either ! )<=p>

On Sat, Jun 20, 2015 at 1:08 AM, Noam Chomsky <[\[REDACTED\]](#)>

>= wrote:

Glad it worked. Hope that the speech was of some interest.

From: jeffrey E. [mailto:[jeevacation@gmail.com](mailto:jeevacation@gmail.com)]  
Sent: Friday, June 19, 2015 6:38 PM  
To: Noam Chomsky  
Subject:

you would have been proud my friend the secretary general of the council of europe  
thjorborn jagland had to give as speech on terrorism to the security counsel. Last night I presented your arguments, re  
hypocrisy, he was shocked but loved it.

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