

#16
Formal talk-26102006
Lila recording day 6,
afternoon session
26/10/2006
061026001
1 Hr 50 min

(Not formal session)

Y: Later.

Bret: Well, I thought we were going to give it to her.

Y: No, I already gave her one, this is my copy.

Biljana: Thank you.

Bret: OK

Biljana: Could we start? You are waiting for me.

Y: Yes.

(Formal session starts)

Biljana: I wanted to point out a few things. I believe you mentioning at a certain point that this part of the article, page 15, and this part of the article, page 30 are not written at the same time and therefore...this I remember you mentioning that the point of the article page 15, maybe not page 15, but when this formula was arrived, D of D equals $2(K) n$ minus n to D over P , this part and this part maybe they were not obtained at the same time and written at the same time. I believe you mentioning something like this.

Y: I might have.

Biljana: Because... also so in my letters, I wrote to you that somewhere where we have $(K) n$ multiplied by $(K) \text{ minus } 1$, this should be n^2 actually $n(K)$ practically which is the same. $(N)(K)$ If this and this should be derived from the same line of thinking, then they are inconsistent somehow in two ways, if I am not wrong. Here, I believe, you are taking into account the same line of thinking. Here we have n multiplied by $(K) \text{ minus } 1$ over P halved which is clearer to me. This is this picture I have drawn. And here, you use actually the same formula although with just K which is more accurate actually and more to the non-physics of things. I don't want to say to the physical picture of things, n by (K) over P halved. And then, this is for one dimensionality It is on D equals 1. For two dimensionality, this is actually the eleventh part of the curve. And then on the twelfth, we have $(K) n$ over P halved n dimensionalities of the second degree. And we have here K .

Y: Q.

Biljana: Q.

Y: Cubed.

Biljana: Yes, cubed. (K) multiplied by n over P halved which is all clear and according to our understanding. And this, this is cubed. So if we want to be consistent, here also should be $(K) n$ and not n multiplied by $(K) - 1$. I know this line of thinking. This line of thinking is derived by multiplying the one arrow in the circuit.

Y: Correct.

Biljana: But this should be here also the case or maybe here is something.

Y: All right, I'll have to go through it myself carefully and say which one I'm going to go...

Biljana: So this is first point. This should be consistent. The second point is the dimensionality of this. What is this by dimension by the nature? Here you have T ; this is T or elementary time unit, the number of elementary time units. But what I believe, it is length quanta. Isn't it so?

Y: It depends. It depends on the context that I am using it because you can use an arrow across the circuit for either time or for generating space.

Biljana: OK. Maybe we should read it once again.

Y: Yes.

Biljana: But then again. Here if I compare this to this essential picture, you have about inflation curve. In the inflation curve, we have space here on this axis which is presented in length quanta.

Y: (acknowledges)

Biljana: So if this is so and if the number of the relations of individuals spread over P half which is derived by the number of crossovers, then this should be multiplied by L quanta and not by T quanta... isn't it so?.. in order to get the magnitude of this axis. Isn't it so? Because everything which is expressed here on this axis is in length quanta.

Y: Yes, it is, but it has to be at a time. So each time has a different length quanta. So this is time quanta this way and length quanta this way.

Biljana: OK. Maybe. I was wondering because here the same formula was referring to T here. And here it is length.

Y: OK. You presented the same problem two different ways. The quanta can be for time or for space. And I'll have to read through it and see which I am talking about at the time.

Biljana: So this whole thing is expressed in length quanta actually, this whole thing multiplied by T.

Y: If we are talking about space here, but I would have to read through it.

Biljana: Also, I had another point actually by asking you this and it was the dimensionality. It was the third point because, OK, I accept this. This is correct. But then this is seconds. And then we have contradiction, as Bret would say, between this being length and this being time. Maybe it should be stressed that this is just a number because it couldn't ... I believe, it is the dimensionality... maybe would be asked questions by someone. You know.

Y: Oh, yes. I'll go over it. I got your point and I'll check it. I appreciate you pointing it out.

Biljana: Also something else, while I have it in my head, you know. This morning I mentioned to you that in Baker papers and in overall picture, at least to my understanding, we are missing explicit finding of probability one small baby universe to be connected to the largest circuit into the picture in order to have a common space/time.

Y: Yes.

Biljana: When we look at Baker's findings, he is pointing out precisely how he came up with his formulas. For instance, here he explains. And I have been through all of it and I understand it fully. We have incoming arrows into a non-physical individual here denoted by number of (K). And then somewhere else, we have outgoing arrows from a non-physical individual denoted by L or [I] or whatever it is. L. And then he states... He goes through this point to this point and then he states, "If I add now a new arrow (K) L or E J actually coming from E to J, then several things happen." This is not just one arrow added; but we have new path from here to here and new perception of time for that matter.

Y: I remember when he and I talked about it.

Biljana: Yes, but I have a new point now. And now we have also from A from [I] to J L which is introducing a new point of time and many of them, and many of them, and many of them. And all of this is taken into account, but a separate picture from this, is this one when we have a circuit and then a greatest Hamiltonian here or a spanning Hamiltonian. Then the same reasoning should be repeated once again when we have this arrow connected this small baby universe to ... this spanning Hamiltonian.

Y: Yes.

Biljana: This is not done. There is a separate chapter for frequency of a circuit and we have stated it is... when F is 27, then the first circuit of 7 appears. But not this situation which is actually the mirror of this situation only extended to circuits. I believe so.

Y: That has not been described.

Biljana: Not explicitly that I could see here because there is a separate chapter to... We don't see it on the curves. We see F of 2, we see F of 5. We see F of 7, but we don't see this. Maybe this is some how implicitly done. Maybe Baker sees more.

Y: I don't remember it being done.

Biljana: We have F formula here a separate chapter and we have been through it and we have... Don, what you were asking yesterday... I have done this actually. I told you not, but this is it. Later on I see that only the letters are different. So this is what we were talking about all the time, only this is here M .

D. (acknowledge)

Biljana: When you ask yesterday about this, I told you I haven't seen it, but actually I did, but this is M not F .

D. OK.

Biljana: So we have number of circuits here, a separate chapter, number of circuits. First circuit, first crossover fork, first crossover circuit, and then expected number of connections when all become connected, all. And when... and this is something different if we look at the context. I believe here a chapter is missing shedding light on this one, circuit to circuit. And then we go to expected number of connections when all become connected. Why is this different? It is different if we look to the context. Because here, he says out n individuals the probability of an individual not making an (only?) choice in clear (only?) choices is this. Which is all correct because what is this? Out of n individuals, one decided not to make choices. So this is the existing situation. And now the... All possible choices are n . And this is all spreaded out to Q relations. And this is the same as one minus one over n multiplied by Q . This is the probability for one individual making choice not to be connected. And then one minus this whole thing. One minus one over n to Q is the other way around. What is missing to one? The number of individuals deciding to be connected. So this is the way how he derives it. So this expected number of connections when all become connected is something different. Now, we jump to all individuals being connected.

Y: Yes, I have asked him to do that because I wanted to see whether we were there yet. But we're not. But now the time turns out to be just short of that.

Biljana: Yes, yes, we're not....

Y: We're not quite there.

Biljana: Unfortunately not.

Y: But things may speed up so to speak.

Biljana: OK. This I have in my... Also something else, but it is too speculative, maybe later. I thought if this is...

Y: I don't think this has been discussed. So you can write it.

Biljana: Ok.

Y: If you feel like it.

Biljana: My doctoral candidates (Laugh) or me.

Y: He's pretty clever though, Dr. Baker.

Biljana: He designed the whole thing. He has done a lot. It easy to find what is missing once you have it all.

Y: OK.

Biljana: OK, yes.

Y: I have some odds and ends to just show you. Here's is a little... This is a chapter out of a book called, "*Complex systems,*" published by Cambridge University Press. It is called, "*Network Evolution and Emergence of Structure,*" by D. A. Seeley. He, at the time, was at the University of South Australia in Adelaide. He was a student of mine, Dr. Seeley. This gives some background on the research that he did and developed on the directed graphs. Here's the phase transition, that same connectivity curve. You might be interested in taking a look at it, Murphy's curve. There's even a section on the Lila Paradigm. So that's for you to take a look at. You read it or not as you see fit. Here's a bunch of notes by Michael Baker on different parts that he developed that appendix. Here's one trying to find the point where everything is connected, where everyone is connected. He made this graph himself. He was showing how he couldn't be absolutely sure that it's either here or here or here. That there is no way to known for sure. Hamiltonian point he called it where everyone is in the circuit, where there is a single pathway that passes through everyone.

Biljana: Yes, strictly speaking this is Hamiltonian. And that is why you talk about spanning Hamiltonians. There is a difference between spanning Hamiltonian and a Hamiltonian.

Y: That's right. So that's included in those notes by him. He gives some of the history and the development that he... This is all his handwriting. So in the coming weeks when you have some spare time, you can read some of this.

Biljana: OK, thank you.

Y: If not, just give it back when you are through with it. When I was traveling around the world in 1998, going from university to university, and Stapp and all these people... The partner of Stapp is Dr. Chu. He is in the same office of Lawrence Lab in Berkeley. I wrote him. I had quite a discussion with him about the Lila Paradigm. And then about two months later, he came out with a paper done his own way. But it wasn't any more better received than Lila Paradigm. Nobody wants to know about themselves. They want know about stuff out here. They don't want to know themselves. Anyway, I think I would like to read some of this letter to you that I wrote to him.

I sent copies to David Finkelstein, David Chalmers, David Griffin, who is a theologian who is also a physicist in California. To Peter Forest. Dr. Forest is a philosopher and he's the head of philosophy department at the University of New England about 500 kilometers past Sydney. And I sent a copy to Henry Stapp. I said having over the last two weeks, talked to you Finkelstein, Chalmers, Forest and Stapp, I have noted that each of you are making the assumption that Whitehead and James (the Whitehead process) in one form or another. I noted that each of you considered this Whitehead process as fundamental so that relation produces *relata*, that noun, that Whitehead says... that nouns are produced by verbs. And that the individual self is an aggregate, not an individual, but that which can be divided. It's and aggregate. That which can be divided is an aggregate made out of parts, many parts, and that an individual is a consequence of dynamic, of actions, of evolution.

Then I said, I have trouble making either *relata* or relations the source of the other. I believe they should be equally weighted that every relation has its *relata*. *Relata* meaning that which is related. Every knowing as Stapp calls it has its knower. And every process has its process. Every dynamic has that which is changed. That every state of consciousness has that which is in that state of consciousness. I believe that both *relata* and relation are equally fundamental. Trying to derive relation from *relata* as we have been attempting to do for the last 3000 years has failed. And now you, following Whitehead, are trying to derive *relata* from relations which I believe is also doomed. These efforts come from trying to derive physical laws from physical law, to bootstrap. It doesn't work. You can tell I was fed up at this time. But I thought I should be firm with them and at least give them something to think about.

And then I say, Chalmers says, that what is needed is to take non-physical consciousness as fundamental along with the physical and find bridging laws between the non-physical consciousness and the physical. I go further to say neither non-physical consciousness nor the physical are fundamental. That both are derivative on underlying information states called 'knowings' by Stapp. The resolving move is to include both the information states that changes the relations and that which is in the information states, that which has the relations, the knower, the *relata*, that these two are equally fundamental. That is, all the finite number of knowers are inherently related with each other. This is schema. In this schema I am proposing the individual knower is not an aggregate of the relations or the result of any process, but is fundamental along with its relations with every knower. This assumption leads in a way detailed in our paper to each knower being conscious as different from knowing. From each knower of other knowers as physical things in physical relationship... that is a common universe. I say that this knower agent is that which we all experience ourselves to be, in a first person way. And is not a human body, brain, brain function,

persona, mind or consciousness itself. But is an individual that can be conscious or not and can exercise free will. According to my proposal, there are no originations (exercising of free will) without an origin, and that origin is not random quantum fluctuations, but is the knower agent that is the origin of the almost random fluctuations. Physical things and relations are not usually thought of as having the ability to originate or having non-physical consciousness or being a 'who.' Therefore, I have called the knower agents non-physical knower agents. A non-physical agent exercises its ability to originate by cutting itself off from any one of the information states it is in or by not cutting itself off from that information state. A non-physical agent only has just one ability. However, since each of an agent's information states is based on some agent, it includes all the not-cut-off information states that that agent is in by each of the agents exercising its ability. The agents are in, in a connected network, producing consciousness for each agent of a common physical world.

With warm wishes,
Charles Berner

Y: I think I said too much.

Biljana: Excellent. You know this reminds me of the mother-child relation. People think, for instance, that first is the mother and then the child. But actually the moment the child is born, the mother is born too. There is no mother without the child.

Y: I get your point.

Biljana: It is very simple.

Y: And there is no relationship between the two unless that's true.

Biljana: Yes, yes. The moment child is born, that moment mother is born, not first mother and then child. This is like relation and *relata*.

Y: Yes.

Biljana: Also this, if I could add something. Whitehead together with Russell, maybe you know, both of them are authors of "*Principia Mathematica*" which was in 1930's considered to be alpha and omega of logic.

Y: Russell. Yes.

Biljana: Russell and Whitehead wrote together "*Principia Mathematica*?"

Y: Yes.

Biljana: And there... he maybe... there he introduced... Not maybe, but for sure there he introduced this relation and it inspired also Godel, for instance. They pose a question. If S is set of all the sets that does not contain themselves, then does set contain itself? It is a question posed by Whitehead and Russell in "*Principia Mathematica*" which inspired Godel.

Y: I didn't know that it inspired Godel.

Biljana: No, Godel.

Y: Godel. In German

Biljana: So this is where this relation and *relata* are...

Bret: Confused, conflated pushed together.

Biljana: (confused? but it is not confused) like illusion.

Bret: Paradox.

Biljana: Whatever I couldn't have it now. But this is when trying to distinguish which is older mother or child, relation or *relata*, *relata* or relation. They fall into infinite loop because they don't know the answer. They pose the question, if S (X belongs to S), if S is set of all sets which does not contain themselves, does S contain itself? This is the same confusion.

Y: That was their question. Does it. Does it?

Biljana: No, their answer is still like this. I have a set. This set has elements. Those elements could be sets themselves also.

Y: (acknowledges)

Biljana: But I say S is a set of such sets of such elements which are sets themselves, for which it is valid that they don't contain themselves. So two answers are possible. Either this S is such set that either S belongs to itself or S does not belong to itself. If we conceive that S belongs to itself, then we come to inconsistencies because we break the initial axiom which was S is set of all sets which does not contain themselves. So this is contradiction obvious. We could not conceive that S contains itself. If we say 'no,' S does not contain itself, maybe we will shall have a lesser problem. But then we are admit that there is one set, and this is S itself, that does not contain itself. But what we have stated in our axiom... In our question was S is set of all such sets. So there is one set, S itself, which is outside. So now we broke the completeness. In the first one, we broke the consistence, and in the second one break the completeness. So this is a paradox. And this is because they are trying to find out whether the relations or *relata* is first.

Y: Yes, and I said that's a mistake.

Biljana: You say this is a mistake. Yes.

Y: And if scientists, the top theoretical scientists today, are in that same problem, and they are doing the same dumb thing because they leave themselves out. They are not self-realized. They don't pay any attention to the guy who's writing on the desk trying to figure out the theory.

Biljana: Yes, yes, this circle there and this circle. (Draws two circles on a piece of paper.)

Y: And that is what I am trying to tell them here in this letter.

Biljana: Yes, great!

Y: I said, "Stop that." You know even a teenage person can understand you can't have a relationship with out a *relata*. And you can have *relata* without a relation. You don't have to be very bright. And that is how they are stuck in this field theory thing. Field theory is just a bunch of relations. And so they have to relate, relations to relations. I think I'll send this to them again. Every ten years I send it to them again.

Biljana: And hope he is smarter.

Y: OK. I have another paper I want to read an introduction to. When I was running around the world in 1998, I went to another conference of the Society for Scientific Exploration. They allow things that are more exploratory. They don't have to be peer reviewed or anything. They kind of take a vote. People say, "Well, out of all the members, half of them think it's all right and another one, 20 percent think, maybe 10, think it's wrong."

But nobody knows. They just have fun together. This is at the University of Virginia. I entitled it, *An Information Theory Consolidation, a Theory of Consciousness and a Theory of Physics*. I'll just read the introduction.

It may be in spite of all strivings that it is not possible to develop a theory of truly everything without resolving the hard problem of consciousness, such as how do physical processes in the brain give rise to subjective experience? And what is conscious experience of a physical thing? The philosopher David Chalmers asserts that. "The existence of consciousness does not seem to be derivable from physical laws. Therefore, science may have to include in a theory of everything, a hypothesis that consciousness is a fundamental feature, irreducible to anything more basic."

That's another quote from Chalmers. Chalmers also speculates that, "It may even be that a theory of physics and a theory of consciousness could eventually be consolidated into a single grander theory of information."

So I am saying, "Well, am I going to give one or not?"

In this article, consciousness while considered to be no less fundamental than physicality is not considered to be truly fundamental. Instead a truly fundamental state of existence is hypothesized which forms the basis for the information theory in which consciousness and physical world emerge together. So consciousness and physical world come as one and the same process. The information theory describes what consciousness is and what it is that has that consciousness and what it means for something to be physical. As a consequence of this approach, the hard problems of consciousness are resolved and as would be expected some of the hard problems of the current physical theory are also unraveled.

So that is the introduction. Then I give the usual Lila Paradigm summary, fixed up for a bunch of scientists who are a little more open than the average. There were maybe

a couple hundred of them there and they patiently put up with me telling them about the Lila Paradigm. One of them, a woman doctor who runs a parapsychology investigation at the University of Pittsburgh, she came up afterwards. And she says, "You've got it." But that was that.

Biljana: Psychologists are more open than physicists, you know, I suppose.

Y: Who are?

Biljana: Psychologists are perhaps more open to something non-physical than physicists are.

Y: Yes, they are because at least the word psychologist has the 'psychic' in it.

Biljana: Yes. Maybe women are more open.

Y: I think they are; I think they are. She's quite well known in her field, quite world famous. But...Now what do you want to do? I've got things we can do or things you can do.

Biljana: If you want, I could present how edge of chaos occurs in term of doubling of the periods. And it has something to do with this recursion.

Y: Chaos lambda. The edge of chaos.

Biljana: If you want to.

Y: Yes. I think that would be a good thing.

Biljana: This is blank, and so I will use this. (Referring to paper she can draw on).

Y: You can use this. I think she just bought a whole ream of paper. She will be here in about one minute.

Biljana: There are actually.... Maybe I could use my book also later on.

Y: Your book is on my side table.

Biljana: Because there are pictures there.

Y: Underneath. No, no. Isn't it there? Is that your camera or is that her camera?

Bret: Mine.

Biljana: Both of them are yours.

Bret: No, that I don't know at all.

Biljana: They look the same.

Bret: They are actually different.

Biljana: Oh, they are. I can see now.

Bret: This one is this one and that one is that one.

Biljana: So are they the same or are they equivalent.

Bret: Four mega-pixel. I don't know.

Biljana: Maybe we should take a picture later on.

Y: That's his camera; that's your camera.

Biljana: Ha! this is mine. I thought you had mine. We are now in tune. We come to the same ideas.

Y: OK, edge of chaos.

Biljana: So chaos. There are actually three scenarios leading to chaos. The first one is doubling of the periods. Maybe this one will be of interest regarding Lila Paradigm because we do the recursion at a certain point. Doing the recursion.

Y: So there are two recursions to get to the edge of chaos.

Biljana: Yes. So the first scenario is the doubling of the periods. The second scenario is quasi periodic motion.

Y: Which kind?

Biljana: Quasi periodic motion, a motion like this one. You have a torus...

Bret: Quasi.

Y: Quasi. Yes.

Biljana: Quasi periodical motion.

Y: So it is only partly periodic.

Biljana: It is periodic.

Y: But is 'quaizy'. (Pun that she misses)

Biljana: It is crazy, yes. It could be crazy; it could not be crazy. It depends. If it is crazy then it leads to chaos. If it is not, then no. And the third is scenario of intermittences.

Y: Intermittences, I understand, on and off.

Biljana: On and off exactly. Great! Intermittences, on and off. So first doubling of the periods because... part of it we have done yesterday when I was talking about recursions. We have, for instance... We are asking ourselves which curve would it be? Or which function for which? For instance, F of X equals one over X . Pity, I don't have the book, but anyway...

Y: I'll get the book. Your book in Macedonian?

Biljana: Yes. I could do it without it, but I want to have, to give you the whole picture. No, not that one, the other one.

Y: No, I don't have it.

Biljana: Yesterday we were looking at it.

Y: I don't know what you did with it.

Biljana: For instance, F of X equals minus X . So we are looking for such a function for which when we put the output as an input again, we shall have minus X . If it is $[I]$ X then F of IX (if the function is minus X) will be minus IX squared the iteration which is X again. Maybe I am giving the wrong input here. The point is when we have an iterative process, a process of iterations of recursions, then at certain point, we should have... not a function like this which is doubling the degree (power) but a function which will be bended at some point.

Y: Will be what?

Biljana: Bended.

Bret: Curved.

Biljana: Curved, which will be curved at one point. And so one such curve is this parabola which is inversed.

Y: Yes.

Biljana: So the mathematical law leading to this is. If this is discrete (which is easier to explain), then we have iterative process which goes like X of n plus 1 is alpha X n 1 minus X n . And because this is parabola, we here X n plus 1 is alpha X n minus X n squared. And this minus X n squared is this curve here.

Y: (acknowledges)

Biljana: So in order to have attractor, in order to have chaos or some edge of chaos, all this trajectories are not allowed to go to infinity. So the curve which is suppose to lead us to the chaotic attractor should be bended, should be curved. And one such curve is this one. So as I explained last time when I was talking about recursions, we have here recursive process, a process of recursion. For instance, we start... We take this arrow, then we find X 1 is alpha X 0 1 minus X 0. Then we put the output as an input. We feed the curve with itself. We have X 2 is alpha X 1 1 minus X 1. Then

X^3 is $\alpha X^2 + 1 - X^2$. And so on and so on. So this means here at the graph, we have X_0 as a beginning. We find X_1 which is a function of it, and the function is described by this one. And then we put this output as an input again. But to put this output as an input again because this curve is $Y = X$, it is just the same as to go to the line itself. So instead of going through the whole process, I take the output and put it as an input and find the second iteration. I might go to the line, then to the curve. Then once again, I have another output. I put this output here as an input, but because this function is... this line is $Y = X$. It is just the same as if from this point I go directly to the line. Instead of ... So I move curve, line, curve, line, curve, and now here we are approaching chaos. Maybe or maybe not, depends on this value here. So for a certain value of λ , in my book I have the exact figures, but let us say it is 0.7. Now we have to the curve to the line to the curve, first point. To the line second, to the curve, to the line, to the curve, line, curve, line, curve, line etc. and we come up with an attractor. This is the first picture.

Now the second picture is... If we take this a little further... What is the connection to Lila? The connections is at certain point in Lila. We are suppose to find M of 5 being $[I]^2$ square of $[I]$ factorial n to $[I] - 1$, A to $M \cos$ and then to the second iteration, we replace this M to this M .

Y: Yes.

Biljana: This is the same process.

Y: Yes.

Biljana: And then for the second iteration once again, we put output to the input again. And so on, and so on. But this being non-linear, and it is non-linear because it is E , might lead us to the edge of chaos. There is a possibility for us to come to the edge of chaos because we have recursion. Now, to proceed. Where is the doubling of the periods? Now we draw this line a little further on a up. And we have another curve here which is very similar. So we have this. This is further on, and now we have this same curve, only α is different. We have once again $X + X^n + 1$ is $\alpha X^n + 1 - X^n$ or forget (meta rey, pi?) and so on. (Is $[I]^2$ square of $[I]$ factorial) and so on M^2 . M of $I - 1$ is here actually. M of -1 over (N) . But now a great difference occurs which is crucial and which will lead us to doubling of the periods. Namely, this slope here is changed. And so we have for a certain initial point, we go to the curve then to the line, then to the curve, to the line. Now we go to the curve to the line, to the curve to the line, to the curve to the line, and we end up with this rectangle. And this leads to two attraction points instead of one.

Y: Ah, ah.

Biljana: Now we have doubling of the periods. This is what is understood by doubling of the periods. We have two periods repeating. And now we have jumping from one to the other, from one to the other to the infinity. And now further on, if we find... For instance, this function is F and this is X , so the dependence here is F of X . But since the process is putting the output as an input again, output as an input again, output as an input again, as we do in Lila, then this is F of F of X . If we denote this to being half of X , then this curves, so for this input F of F of X . This means in this second

curve for this input which is X_0 we put as an output this second value. Not the first one, but second because we have F of F of X . So this curve, this second curve which is the same presentation of this one only different. Will be... I'll have X here, I have H of X which is F of F of X , so this because this curve will grow faster and this slope will be steeper. We have here this and this and this and this. And we have once again the line Y is X because it is handy in order to shorten the process, it helps us do this. Now if we go to the curve, the same process then to the line, then to the curve, then to the line, then to the curve, we could double the periods once again. But since this is... the function itself is doubling the previous function. This is actually four attractors. Because this is on the curve...

Y: Four?

Biljana: Four attractors.

Y: Attractors.

Biljana: Attractors. So we have here doubling of the doubling.

Y: (acknowledges)

Biljana: So we have X_1 star X_2 star X_3 star X_4 star because this curve is F of F of X .

Y: That may be what we have in the Lila Paradigm.

Biljana: Yes, yes. And then if we go something else, for instance, G of X equals H of H of X which is F of F of F of F of X and we draw this curve here. Then we shall obtain 8 attractors. And we shall come... Now it is time for another picture. If we draw all this lambdas, we have for the first picture, we have one lambda here and we have just one attractor. Then we had this lambda further on higher and then we had two attractors. Then we had four attractors and so and so on for different lambdas. This is lambda one, lambda two, and then finally we will obtain this curve which was known to you. Logistic curve. You said you have seen it somewhere where we have lambda one here, the first doubling of the period, then lambda two here, the second doubling of the periods. Then lambda three here. Then four doubling of the periods.

Y: It is in that book on artificial life.

Biljana: Yes. Then at certain point, we have lambda C which you have at edge of chaos. When you say the life begins here.

Y: (acknowledges)

Biljana: This is the same as lambda C only for another curve.

Y: Another what?

Biljana: Another curve, another function, another... I am not drawing your original function but another one. But the philosophy is the same. This is what I am saying.

Y: Yah, OK.

Biljana: So at one moment you have here Ergodic Behavior. Now if you will allow here to make a remark regarding your paper you wrote to Chu. At a certain point, you say almost random. This almost random strictly speaking could not be. It is either random or it is not random, no matter how complex it might be. But it might be ergodic. Ergodic means there is a certain glow to it, but it is so hidden that after millions of years, it will repeat itself.

Y: Hidden order.

Biljana: And only in a statistical sense. So this is ergodic. So we come to...

Y: That is how life seems, this living that we do. There is... And it keeps it interesting, fascinating.

Biljana: Yes....So this is one scenario. This is one way to obtain chaotic behavior. This is the doubling of the period, this one. And it might be interesting in terms of Lila.

Y: That's amazing...to me.

Y: (acknowledges) I had never put it together like that. Bravo!

Biljana: Yes. When you have recursion, this might occur. In non-linearity and we have non-linearity obviously because we have. It is obvious, we have M of 5 this $[I]$ squared. First of all, square is non-linear. Then we have $[I]$ factorial, then we have n to I minus 1, and then we have E which is clearly... which reminds me, I wanted to ask you whether the recursion begins in this inflation curve. When this curving begins? You said at the beginning. We don't take this into account. And then in a certain point, we do. Is it when the linearity ends? Do you know what I am asking? You said...

Y: I know about what you asking, but not precisely, what you are asking.

Biljana: This morning when we were discussing the inflation curve, you said at the beginning, you are finding this F of 2 according to this simpler formula.

Y: Yes.

Biljana: MO 5 without E .

Y: Yes.

Biljana: And then at certain point, you start recursion. Is this point when the curve begins?

Y: Yes.

Biljana: Then OK. Then it is all clear for me. So it might be of interest because clearly in your diagrams, you have edge of chaos. Someone has seen it.

Y: Someone has seen what?

Bret: Edge of chaos.

Biljana: Someone has seen the edge of chaos when dealing...

Y: Stapp.

Biljana: Stapp when deal with the diagram.

Y: This one.

Biljana: Yes, this one. We begin here at the edge of chaos.

Y: Yes.

Biljana: How is it obtained? Because in a science of creative chaos, it is known how the edge of chaos might appear. Whether it is true doubling of the periods which is this one, or there is another way to reach edge of chaos. May I present it also?

Y: Yes.

Biljana: So this is finished. Pity we don't have my book because all the pictures are here. But never mind. Now, the next scenario, second scenario is; in face plane which is three dimensional or for that matter n dimensional frame of reference. We have, for instance, we have three variables. We have X , Y , and Z and this could be even the attributes of the individual, for instance. Now this could be one possible behavioral of a system is for it to be a dot. We might have just a dot. This is one. All the trajectories in the system might be leading to this dot. First, second, and so on. Usually that is the coordinate beginning. We have trajectories going to this one. Second possible behavior is to have behavior like this one which we have once we introduce the circuit, the Hamiltonian, into the picture. Then we have, not at this point actually, when we have bifurcation, we have difference in distances and thus a wave. This is a distraction. We have here now the second behavior which is this point, which is representative point, is moving through this curve. And then it is... the projection is making one sign and the other projection is making another sign here. So we are observing the projection of the moving of the point through the curve. As it moves, we have here... It goes here and here and here and here and...

Y: I understand.

Biljana: Now the third possible behavior is periodic, three dimensional periodic behavior which introduces another wave which is orthogonal.

Y: Which is what?

Bret: Orthogonal.

Y: OK.

Biljana: So we have two signs moving orthogonally, one to another. We have behavior like this one.

Y: Ah ha.

Biljana: This one, this one, this one.

Y: Quasi.

Biljana: Quasi periodic. And now you will see this is very interesting. This is still periodic. It is more complex, but still periodic. Now when we reach... And finally, let me finish. And finally, the fourth possible behavior is when this (broke) and we have chaos attractor. At one point it could (broke?) and we have chaotic behavior.

Y: But it still has an attractor.

Biljana: It still has an attractor. This is why the curve should be bended in order to bring back the trajectories. Otherwise, one trajectory could run out or run away.

Y: It just goes off.

Biljana: So in order to have attraction, we must have a curve like this one which is bending the space or time. It should have bending into it.

Y: Limitations, constraints.

Biljana: Yes. Actually this behavior is named global stability but local instability.

Y: (acknowledges)

Biljana: It is locally instable in the sense that we never know where the next appearance of the trajectory will be. We have no knowledge of it. It makes it local instable, but globally it is stable because we know that it will never be here, for instance.

Y: (acknowledges)

Biljana: It's in a bounded space/time. It is in bounded. So this is chaotic attractor. But there is a great point here, I'll tell you now, a great point here. And this is why they say, order out of chaos and chaos out of order. The book of Prigogine. When we have this quasi periodic behavior, this curve might end into the same point and repeat itself just exactly the same. In which case, the radial of this, the radius of this or the diameter of this bigger circle toward the diameter of this smaller circle is a whole number. When this bigger diameter over this smaller diameter is a whole number, for instance, this is 4, exactly 4.

Y: Then it will repeat?

Biljana: Then it will repeat. But when it repeats itself, an affect of resonance happens. And if it is amplified, and then if we observe this in terms of astrophysics... For instance, if this is the earth, this is the sun and this is the moon, the moon moving around the earth and together with the earth around the sun, then if this is the case, we (have) an unstable situation. And the moon would go further away in the galaxy.

Y: But it doesn't.

Biljana: It doesn't because this is fraction.

Y: Ah.

Biljana: Because D over D is not a whole number. This is what... which...holds the universe together. And this is why we say that when we have this order, a fraction, then we have order, stability. And the other way around when we have order, a whole number of the bigger diameter to the smaller diameter, then we have disorder and instability and the moon (settle it) goes away. So this is why, for instance, we have the sun here, Mercury, Venus, the Earth, Mars, Jupiter. Between Mars and Jupiter there are clouds of meteors.

Bret: Asteroids.

Biljana: Asteroids and then blank spaces and then another bunch (belt) of asteroids and then blank and then another bunch of asteroids. These blanks belong to a situation like this one where the radial, the diameter of the bigger orbit and the diameter of the smaller orbit was a whole number. When there is a small number, it runs away. It is unstable and these are empty spaces.

Y: (acknowledges)

Biljana: So these empty spaces in the moving of planets belongs to behaviors in which the closer diameter over the smaller diameter in the quasi periodic movement, because they are moving together. They are moving around Jupiter and together with Jupiter around the sun, we have this situation.

Y: But do they know why?

Biljana: Because of this.

Y: Why does that do it?

Biljana: Because we have here... when the curve repeats itself, at least one attribute of this is amplified.

Bret: Harmonic resonance.

Y: Ah. So that's what causes it to fly apart.

Bret: So energy is transferred from one body to the other over time.

Biljana: We have resonance and it pulls it away.

Y: Got it.

Biljana: So this is second scenario. And the third is intermittences which you know.

Y: Yes.

Biljana: We are periods of silence and then periods of random behavior and then periods of ordered behavior and then periods of random behavior.

Y: Excellent. I think this is going to be useful in the Lila Paradigm especially in the overall picture.

Biljana: Yes. At least it could be mentioned in the writings you know. This is what physicist like diagrams, you know.

Y: Numbers, yes.

Bret: It's another type of quantization those bands of asteroids, if Lila cycles also have stable and non-stable.

Y: Yes, well, it's the same thing if I'm correct. This universe is the Lila Paradigm. It's not a model over here, it's the thing itself.

I am looking for the biological part. Page 23. I'm just going to read in this footnote where according to quantum theory, the reduction of the wave function must be instantaneous. And yet there is no known physical action which is instantaneous. Embarrassing. Section 6 Biological Forms. I thought I would read some of this and then bring up to date my current observations about biological forms because I have learned quite a bit since I wrote this. So we have a few minutes left, we can do this.

Most people, especially scientists, claim that what it is that they are is a human body. Some, mainly neurobiologist, think that what we are is some functioning of the brain. Others, including philosophers, think that what we are is consciousness itself. Some others think that what we are is the soul or spirit that leaves the body at death, and that moves around in space and progresses through time. Some think that the self does not exist that it is an illusion of a functioning brain or of a mind. Like Daniel Benoit. In this information paradigm, we have assumed that what one really is, is a non-physical agent in an existential realm with many other agents. This raises a question. What is the relationship of these non-physical agents to human bodies, to living biological forms in general, and to souls? The answer to this question is rooted the ability of each non-physical individual to deny his information states based on other agents and itself. If an agent denies or chooses to not know its information based on itself, it has no consciousness of itself as it really is, an uncreated eternal individual with the ability to deny itself access to it information states or to not do so. That it is not located in space or time or is not energy, mass, or matter, can not be destroyed or

changed and is not a thought, a mind, an idea, an ideal, form or any such thing. If that agent that is in this state of denial of its information state based on itself, it is in a giant circuit system. If it is in a giant circuit system, it is conscious of itself as an individual entity with individual initiative that is conscious of a three-dimensional physical world in which it is located here and now. Its view point. That agent has memories of having previously existed, of having acted and had that action affect the physical world of which it is conscious and of having had its location and other apparent physical characteristics affected by physical forces. In other words, the self, the agent, is conscious of being, is like a physical thing except that it is conscious and can act. The agent's experience of itself as that which can be affected and which might like physical things of which it is conscious be destructible, gives the agent a reason to make the determinations in order to have that self be affected and possibly destroyed. Through its memories the agent is conscious that certain of its acts of denial and non-denial appear to produce results that contribute to its welfare. Most of these acts produce results by giving the other agents reasons to make determinations which it may perceived by the original agent as physical events in the physical universe that contribute to the agents supposed welfare. What do we call that? Manipulating others using the paradigm of a background of time rather than one of embedded sub-states or memories. We could say that the agent originates more and more such acts and the process becoming conscious that certain denials and non-denials produce bigger effects than others do because they trigger more acts by other agents. The agent then tries various denials and non-denials looking for even bigger "favorable" affects.

At first, all of these actions would be on an atomic level. Then significantly the agent begins to act in conjunction with one or more agents, each of whom is also trying to aid its own physical existence, to construct triggerable systems that are used to aid the survival level of those agents as a group. So then you get an assembly that is used as a trigger by several individuals. Such systems would be the most elementary biological forms. It turns out that in order to successfully construct such systems most of the agents involved need to selectively deny most of their information states. Since biological forms work best if the sub-arrangements on which they are based has only a few directed connecting arrows per agents. Usually the average number of directed connections per agents (K) that operate in a graph model modeling a biological form is between two and ten (see Kauffman 1993).

That book is over there. It is called *Order* or *The Basis of Order* or something like that.

Biljana: "*The Origin of Order*"

Y: "*The Origin of Order*" Kauffman also of the Santa Fe Institute. And he says it's between two and ten for biological forms which is exactly... I read this book after I had discovered this. That the edge of chaos is between two and ten on that graph. You remember that one.

Biljana: Yes, I remember.

Y: OK. So that is where lambda is.

In the information model where there are about 10 to 23rd agents, the operational (K) is from two to thirteen of a possible about 10 to the 23rd non-denials per agent. It could have that many because you have denied everyone.

When you go to sleep you do. You go to the unconscious or the third level of sleep where you are not conscious, deny everyone. In dream you are denying almost everyone. When you are conscious, it's between two and thirteen.

And the optimum (K) for life is 12.7. This extremely skewed from the random selection of denials and non-denials is shown graphically in graph A. We have already seen that. The slide from a maximum number of agents about 10 to the 15th that have two non-denials down to about eleven agents, that have thirteen non-denials is the operating edge of chaos. (See the book by Langdon).

The one I showed you the other day on artificial light.

Each of the agents that is using a simple amplifying system, perhaps some primitive version of a protein, would want to use it primarily for that agent's own welfare. So the agents involved would make a system, a protein that would create more such systems by replicating itself, perhaps a simple form of RNA. An agent is able to use this RNA protein and to act locally that is within the reach of the RNA protein to affect the environment within say a few micrometers. The protein would also be connected to a local environment by light by vibrations of perhaps water or air, and by adjacent or touching molecules and atoms. So that in this same way that the agent uses the protein to cause bigger effects than it could just by its own unaugmented denials and non-denials. The agent can focus its consciousness on the local situation through those connections to the local environment. This last would be a primitive sensory system; while the action trigger-amplifiers would be your primitive motor system.

Now the whole thing that starts this off, as I mentioned earlier in this section, is self denial. When you go out of a state of knowledge of yourself, then you get worried about your survival because you seem to be a physical thing through the circuit. And so then you try to protect yourself just like most people do. So they build these biological forms to be able to do things with just a few arrows. One or two or three usually. And then they get together and form more complicated ones, and more complicated ones. Until you have a body like we have, very complex, incredibly complex if you study it carefully.

Let's go on.

The rest is just more selecting of denials and non-denials in conjunction with many agents directly changing the RNA to form DNA and changing DNA to construct more and more complex motor sensory and reproductive systems, arriving finally at the biological bodies that now exist on earth. The agents also

make selections that determine which particular biological forms they are associated with according to which living body survived well and which did not.

So the Darwinian idea is correct in terms of that kind of evolution. But it's wrong in that the basis of selection is not chance. Chance does play a factor. But the biggest factor is the purposeful selection by the individuals who can act. And if there aren't any individuals who can act, then there is no free will. And it is all just a machine and who cares about anything because there is nobody to care. So it is the agents' determinations that produce the environmental "caused" variations. However, the direct genetic manipulation is primarily responsible for evolution.

You are actually affecting your DNA molecules in your sex cells and in your other cells. By affecting them in your sex cells, they evolve a little bit because it causes crossovers to occur. But in the sadhana that we talk about on class days, that is happening rapidly. So that the evolution goes on. The tendency for this to go on is called the evolutionary force. Translated into Sanskrit, evolutionary force is Kundalini. The Kundalini is the evolutionary force. And that evolutionary force becomes activated when you have the upward flow of the sexual energy. When you hold it up and don't lose it through orgasm or any other means, it builds up and causes the evolutionary power to turn on. Then the crossing over happens rapidly and the person evolves through the various stages. And there are many hundreds of them, these stages. Until the evolutionary force gets up to here, then it changes form and ceases to be a form and becomes a state. And your whole state toward everyone and everything changes. OK. A little bit more here now.

The local focusing of consciousness caused by the sensory system amplifying local input tend to wash out the un-amplified direct universal consciousness of an agent that has been described in the previous sections of this paper.

Now, we'll get to the parentheses in a minute. So if you're connected to the whole giant network of individuals, you should be conscious of everything in the universe. And this is true of siddhas or enlightened ones, the adepts, the perfected ones, whatever you want to call them. They have this universal consciousness. As a matter of fact, all of us have it. When we're conscious, we are conscious of the whole universe. However, it is washed out by the inputs of the sense organs feeding into the brain and that brain then focusing down on you as a divine individual washes out that because that is so much stronger. It is so much more powerful. It's like trying to read your watch in a movie theater when the screen is on. It blinds you. And so you have a universal consciousness going on all the time. But the people don't pay any attention to it. So the process of meditation gets you to abandon all of these sense organs and sense faculties. And then you develop this universal consciousness. It's called omniscience. So it washes it out, and then I say parenthetically:

(Although the principle described apply equally to the amplified local consciousness since it is simply an amplified part of the agent's universal consciousness.)

So you can be conscious of it. Would you reach in here and pull out that little booklet down there? It's a journal of consciousness studies. (Volume 4 1997) Ah, this is what I want. If you cut through the brain like this, in the center of the brain is what is called the thalamus. This is the third ventricle or space that is full of cerebral spinal fluid; these are the cerebrums the right and left half of your cortex. All the sensory information pours in and the motor information comes out. The individual whose body it is, is located right there, at the connection between, at the bottom of the connection between these two lobes of the thalamus. It is interesting that this guy who studies nerve patterns in the brain hints at this. He doesn't call it a non-physical individual, but he says that central focus of the command center. And that is where ajna chakra is, or the command energy center. That's where they are at. Now, they are not actually located anywhere but as a spiritual individual thinking they are here and now, like Ram Das. You have heard of Ram Das here and now?

Biljana: Be here now.

Y: Be here now. Big mistake. Yes, it is in the right direction to be here now rather than be somewhere else. And then...be here now and then get over being here now. But that is where one is, here and now as a spirit. This is a very interesting article.

Bret: How do I find all these things?

Don: Yogeshwar, can I scan this.

Y: Hum?

Don: Can I scan that please?

Y: Yes. As long as you get some more ink.

Don: I refilled my cartridge. That's how I printed these up. I just ran out of time.

Y: So we were just dealing with here.

Biljana: The parenthesis

Y: Alright.

Sensory deprivation carried on long enough uncovers the universal consciousness. And many people are conscious of a shadow of it when, for example, they notice that they have a sense of existence of a present time throughout the entire universe.

Like you can imagine Jupiter and you can image Andromeda and you can imagine the whole universe. And you get kind of a faint impression of somebody that is able to hold that idea for a long time, that those things actually existing right now not according to Einstein thirteen billion years ago at the edge of the universe. But they are existing whatever there is now, is there now. Now this sensory deprivation, deprivation if they carry it on long enough. First they start to go through

hallucinations and then wild hallucinations. And then that begins to calm down then they have dreams and then that eventually starts to develop into the universal consciousness. Using a chamber like that is not as good as meditation though. The man who first did this work I met at that conference in Tucson on consciousness. I forget his name at the moment. And we had long talks about the stages different people go through. I was telling him the stages people go through in an enlightenment intensive.

Bret: Was it Willy, the fellow's name?

Y: No, not Lilly (Ann?). But they are of the same ilk.

The sensory system of the human body makes an organized pattern of activated fundamental particles in the brain available to the agent associated with the brain.

So in that article that diagram, one connects to one particle or quark or an electron or to a positron or to a different quark and by doing so they are actually connecting to the individual who appears to be a quark or an electron. And that sets off the trigger that causes a motor activity or moves their attention to a different part of the thalamus where the sensory information for the sense organs are coming. And so you steer this body around and we look just like... It's a robot under the command of a non-robot. And there artificial robots, artificial life robots are trying to see if there is anybody home. Well, there is nothing but anybodies.

Biljana: There is all of anybodies.

Y: If that agent is in a non-denied information state based on one of the agents upon which that pattern of activated particles is based, the agent is conscious of that pattern. The connection between the agents' determinations and the sensory and motor amplifiers may occur in the microtubules. (See Hameroff and Penrose)

I had a good talk with Hameroff also at that Tucson conference.

Which agent is primarily associated with a particular body may be determined by many factors.

I think what follows in this paragraph is wrong; but I'll read it anyway.

One likely factor could be a similarity between the local sub-arrangement of a non-denied information states that an agent is in with a pattern of neurons in the brain of the body.

So in other words that they're associated with some sub state and that matches a neuron pattern that attracted them to that brain.

Biljana: Yes. Is that not so?

Y: Well, I don't think that is the main reason. It is possible that it might happen. It may be, on the other hand, that the sub-arrangement the agent is in acts as a guide in forming the neural patterns in the brain. This is more likely that they join up with the body and then they... Around birth time or thereabouts, the brain is still connecting and their choices and their patterns that they have guide the... So it seems like their brain. Although there is already a brain there from the DNA pattern which comes from some other source of others including the parents, and so on back, back to back. But you got the point, I see. It is likely that once an agent has made a tentative association with a brain, the agent's denials and non-denials will influence some of the neurons to make or break connections, modifying the structure over a period of time to fit the agents own local pattern of non-denials. Twenty, twenty-five years ago they said once it gets set after about eighteen months that there is no changes ever in the brain pattern. Since then they have found out that it is changing all the time, rapidly. Billions of connections are being changed. All you have to do is have a slight inclination to do so and it happens.

Biljana: Epigenomics, the next Noble Prize is foreseen to be in the field of Epigenomics which is dealing with the possibility of the individual to change the DNA.

Y: The DNA, yes.

Biljana: Which was not known, which was denied until now in science.

Y: So they're all approaching the Lila Paradigm step by step. That the individual has free choice.

It may be in the last paragraph that one of the fundamental particles based on an agent, say a positron, might actually exist in a key location in the brain of a body. And such a location suggested by James Newman was in that article. The intralaminar complex in the midbrain of a human body.

So when the body ceases to function, the blood quits running, the heart stops beating, the brain stops its electrical affect because it is starved of oxygen, the person leaves.

Michael Baker and I were talking about this and I said, "And a person leaves." And he said, "How fast do they move?"

Biljana: Space/time.

Y: He was worried. He was wanting to go to another galaxy wondering how long it would take him. Does he go at the speed of light?

Bret: With that kind of thought process, it could take a long time.

Y: It could take a very long time. He would be lucky to get back to England where he was born.

Biljana: He was faithful to himself, you know. His whole life was devoted to space/time.

Y: Yes. So we have just a few minutes. The boys want to talk to you about anything. This would be a good time for them to do it before I throw them out.

Biljana: May I ask you something? Reference to one remark in your letters which is somehow connected to this. You said at one point that an individual could be in state of direct knowledge of itself. This was when I suggested that n^2 should be used instead of $n - 1$. And you said at that point, "An individual could be in a state of knowledge of itself, but it could not accept itself."

Y: By accept I mean accept as different than the state of knowledge.

Biljana: Because I understood that others could, but it could not.

Y: No. I have stopped using the word accept and deny. They are too broad and it needs to be focused on epistemology, on the bases of knowledge and knowing.

Biljana: Because I was thinking... regarding my question... and my question was others (?) oneself.

Y: You were right. You can accept yourself, but not really accept. You can be in a state of knowledge of yourself or in a state, it's an act.

Biljana: You have stressed that knowledge and act is the same.

Y: It's the same thing.

Biljana: Which is great!

Y: The act to know and the knowing if it is a timeless non-physical thing, it has got to be the same thing.

Biljana: And if relation and *relata* are the same thing?

Y: Relation and *relata* are actually merged as one, but they are different attributes.

Biljana: The known and the knower are the same.

Y: Tomorrow we will have a scripture class also. You have been here a week now.

Biljana: Yes.

Y: We are making some progress.

Biljana: Hope so.
(End of formal session)

Y: What is this?

Biljana: May we have (?) when it is over. Ah, this is a present for you. This is a CD about Macedonia.

Y: A CD or a DVD?

Biljana: DVD actually.

Y: And some pictures.

Biljana: Yes, pictures here.

Y: Ah. Beautiful!

Biljana: And it is all here. Music, also. I got it the last day. Otherwise, I should have made copies for everyone.

Y: Since I was in Slovenia, a lot of progress has been made in the last twenty five years. They didn't have anything like this in Yugoslavia when I was there. It was about fifty years behind the US. Now they are almost caught up. I mean look at you. You are in the Macedonia that was former Yugoslavia Republic. Yes! With Tito and all that.

Biljana: No, I meant in the sense the name under which Macedonia is accepted in the United Nations is Former Yugoslavia Republic of Macedonia which is.

Y: Because the Greeks had a fit.

Biljana: Yes, because of the Greeks. And it is so unfortunate.

Y: Was your part where Phillip lived? The father of Alexander.

Biljana: Ah, then that's the real Macedonians.

Biljana: I told Don this is now why we are paying karma, because we were so great.

Y: So wonderful and conquered the world.

Biljana: Conquered the world.

Y: Well, they're a talented people. They did conquer the world. Alexander was a great man. Just like some people I know are great men. But they also have flaws. And so they have big flaws because they are great. Like some of us, including me. I made many mistakes in my life. Many mistakes but I have tried over and over to correct them. And I am still working on it. Turn it off.