

BigBrain Radio Show

7/8/06

Eyes

(music)

D: Hey good morning! It's Saturday morning. Welcome to the BigBrain Radio Show. I'm Dr. David Stussy, and you can call me Dr. D.

Z: And I'm Dr. Zena Xanders. And you can call me Dr. Z.

D: And we are...

B: The BigBrain Radio Show!

D: So Dr. Z, I want you to close your eyes.

Z: Close my eyes?

D: Yeah. Everybody, close your eyes.

Z: Okay. If you're driving don't do that.

D: Yeah, don't do that driving. But close your eyes. What do you see?

Z: Um... kind of black haziness.

D: Okay. Now open your eyes. Now what do you see?

Z: (laughter) You!

D: Extremely handsome man.

Z: Debonair, dashing, young man sitting across from me.

D: Well did you know the earliest forms of life on this planet, well for a billion years, depending on who you're talking to, they couldn't see anything. They just knew about light.

Z: They didn't have eyes?

D: No eyes. Every living form, at least terrestrial forms, are phototrophic... or... phototrophic yeah.

Z: Ah... photoreceptive.

D: Photoreceptive, that's it. And so they always respond to light ... like let's just picture little animals that were prehistoric and they would just... they would face toward the sun. The size of their body would depend on how much light they were exposed to... how thick their skin was... what they were made out of.

Z: So they could sense the light, even though they couldn't see the light.

D: Oh yeah... The body... it was all over their body.

Z: You know we have a pineal gland inside near the brain that detects light.

D: Well light is very important to us. I think we're pretty oblivious to it really... because why would be thinking about it other than that. But anyway, at some time there was a thing called the Cambrian Era, which was millions of years ago. Something happened where more of the sun was exposed to the earth... like maybe clouds disappeared from some part of ... I don't know... whatever. And there was more light available and the eye started developing.

Z: Hmm

D: Now, what about the eyes? So our show today is about the eyes. Okay?

Z: Good.

D: And you know we've been talking in the BigBrain philosophy about how everything is integrated. We've talked about the heart. And the heart being the mediator of our brain and our feelings and our emotions and our memories. And the BigBrain... the metaphysical BigBrain... you know

that it's in contact with everything and it's where the creation and... you know the joy of life is created. And the eyes are the receptors to that. And...

Z: Receptors to the soul.

D: Yeah. And so we're going to talk about the eyes. Because the eyes are a lot of things we think they are, and a lot we don't think they are. And then there are a lot of special things about the eyes.

Z: We take a lot of things for granted about our eyes too.

D: But anyway, the earliest thing was a compound eye... was a big... first of all, it was a camera eye...

Z: Like a gargoyle eye.

D: One thing... everybody thinks their eyes are cameras. They're not. They just let the light pass through. They're sent at 12 different levels into 12 different areas of the brain. They talk to each other. And somehow the brain picks up a picture.

Z: Right. The eyes just receive the information... in a light wave... change it into an electrical impulse, which goes to the back of the brain and makes a picture.

D: All our sensory input is electrical.

Z: Electrical.

D: And somehow it magnificently changes into what we see and feel and hear. So it has a lot to do with the way we see things, we continue to see things, how we see things as we're growing up. You know our brain kind of preordains a little bit of what we see. But anyway, the first eyes I said were compound eyes.

Z: What is that exactly?

D: Well they were just a lot of little eyes like fly.

Z: Oh. Many little lens.

D: And then there was one eye.

Z: Right.

D: And then there became two. Now two eyes is what allowed us to have three dimension so that we could judge distance and motion and tell what we're doing. And that allowed what we call the predator.

Z: Well and where the eyes are positioned on the head determines kind of what that animal or being had to cope with. So like fish have their eyes on the side of their head because they have to be watching for predators from both sides.

D: Crustaceans have them on the end of long stalk.

Z: Because they need to be able to look around for food.

D: Yeah. Like antennae.

Z: Yeah. And human beings have them facing forward so we can judge distance.

D: Mm hmm.

Z: Make cognitive decisions on our...

D: Yeah, the big thing with us and animals and our eyes is most animals are ... the eyes are determined for motion... you know to detect motion. So they have a different way of kind of boxing things in. But our eyes are for information and cognition... and we've developed to the point where it's a higher level of information. So it isn't just motion. We obviously detect motion.

Z: The eyes develop based on what the purpose they're going to be used for.

D: Mm hmm.

Z: Form and function.

D: In fact the book that started me on this is called “The Blink of an Eye”.

Z: “The Blink of an Eye”.

D: This guy... it’s kind of an academic book, but it’s really interesting...

Z: Andrew Parker.

D: Andrew Parker. And he said that evolution really took off when we became... when we actually started developing the eye, and it determined our evolution and how we surv... whether we survived or didn’t.

Z: You know something interesting you’d mentioned to me, because you’re doing all that neurology work, is that the columns in the sides of the eyes are homologous... or reference to the columns in the spine. So there’s a great relationship between the spine and the eyes.

D: The lateral and medial rectus, which are the eyes on the side and the inside... the outside and inside of our eyes, which control most of the motion of the eyes – not all of them – are in the same embryo column... they develop at the same exact day or time as the small muscles of our spine. And so that’s why the spine affects the eyes, where the eyes can affect motion and rehabilitation of the spine. They do eye exercises. Kind of cool, huh?

Z: Yeah. And the number one input into the brain is from receptors we call mechanoreceptors in the spine. So a lot of our visual orientation is also affecting our spine and our brain.

D: Well there are two things... the baby is born relatively helpless. A baby. A baby.

Z: The baby.

D: Human baby.

Z: The babies. Le babies.

D: So our brain can develop. That's the reason. And what causes it to develop? The brain really is an inert mass, like a big battery sort of...

Z: Potential.

D: And the information starts coming in from the receptors and the spine... and from the eyes. When you think of a little baby...what are they doing? They're moving all the time... looking at all that motion.

Z: You know how you put mobiles over their beds.

D: And of course the hand has a big input. And they're moving their eyes... all the time. And then they're starting to use their jaw, which has a big input. And so as they start to walk, then they... from the spine...

Z: Really accelerates.

D: ... really takes off. Yeah.

Z: Once they can move on their own, locomote... then the brain really starts to develop.

D: When we went to two feet, that's when the possibility for the human brain developed.

Z: Bipedalism.

D: Yes. It had a huge input...

Z: Versus what? Quadrapedalism.

D: Being on all fours.

Z: (laughter)

D: Some days I feel like...

Z: Crawling... walking.

D: ... some days are like that, but not every day. Anyway, so you see how the eye is pretty magnificent and it has a lot to do with who we are. But if you talk to most people about eyes, I think they really think of all different kinds of different things. Our ability to perceive art, our ability to perceive beauty... and our ability to look at symbols and mathematics and numbers and to read ... and to transfer out information. Even... here's an interesting thought... Our ability to see on a physical level has given us the ability to see on a metaphysical level.

Z: Well something you said that's interesting is we do not have the physical facility to take in like 90% of the universe.

D: 99.9% of the universe is oblivious to us. We can't see 99.9% of what's going on.

Z: So there's a lot of things happening that our senses...

D: That's because of the wavelength...

Z: ... that our senses can't perceive. We can't perceive this information.

D: But we operate as if we do.

Z: But now we know because we have lots of different instruments now that can detect things that we never used to have. So we've made machines to give electrical impulses to help our senses where we can't see.

D: But I would say humanity as a rule don't think about that... they pretty much go by what they see.

Z: Well this is kind of the spiritual component of what we can see. We think we can see everything. The truth is we mostly don't see anything. And we're judging our decisions and our spiritual life. And I think that's where the idea of faith comes in because faith is being able to believe in something you cannot see. You cannot physically see it.

D: That's true. Faith...

Z: So it becomes a very spiritual conversation.

D: Well that's the purpose of the whole... the whole purpose of the BigBrain Radio Show is to open our eyes to the metaphysical universe. But not woo, woo, woo...

Z: Open our awareness eyes, not our physical eye... our awareness eye... our internal eye.

D: Like I said, it comes from our ability to physically see, we can metaphysically see it. It allows us to have a thing called a vision or an idea or concept because we know what seeing is.

Z: Vision is like internal eyes.

D: Mm hmm.

Z: It's metaphysical eyes. I like that. I never thought of that... having a vision.

D: Well, another thing about the eyes is... we... they allow us to identify things by their shape, also, and their color. And that color doesn't really exist per se, it exists in the brain but not for real.

Z: There's not color out there. It's what's perceived in the brain?

D: It's in our wavelength that we pick it up at. That's why some people are color blind. They don't have that wavelength perception.

Z: You know what this reminded me... I'm not... I'm computer challenged... techno-challenged... but, I believe a computer works with just ones and zeros... ones and zeros. You know we see all this cool stuff on the screen, but it's really just ones and zeros. Same thing with our perception in our physical eyes. We think we're seeing all these colors, but really we're just seeing... there's just charges... numbers of charges... light waves and charged particles.

D: Well yes... positive and negative... positive and negative... right.



Z: Yeah, and here we think we're seeing all this beautiful stuff, but it's really electrical charge.

D: You know the color of the eyes are determined by pigment in the eyes. And the color can vary depending on how much pigment is exposed. And there's even some people that say depending on how healthy you are... people who do a lot of fasting say that the color ... everybody's eyes turn blue. I don't know if that's true or not.

Z: I don't know. But there's a whole healing science based on the iris of the eye, or the eye itself called "iridology"...

D: Mm hmm.

Z: And they watch the health of your colon and the health of your whole being through your eye. When we come back from the break, we can talk about some of the health conditions. Do you know you can determine your health... a great deal by looking into the eyes?

D: Ah, Dr. Z, half of my exam that I do on patients is in the eyes.

Z: Well then you know that. And I went to an ophthalmologist because I took a tennis ball to the eye, which I'd like to talk about because I have these cool pictures, and they can tell you a lot of things about your health by looking at your retina... the back of the eye.

D: And that's actually what we look... with just an ophthalmoscope, but he actually took a picture ...

Z: Yeah, he had the fancy equipment to go in there.

D: So we looked... we take a quick look with our ophthalmoscope and we can see the back of the eye. In fact, the back of the eye ... if you look at the back of the eye and if the back of the eye is moving, that means the muscles in your body are unstable... because they eyes are stabilized by muscle...

Z: It should be stable.

D: Yeah... so you can pick up things like Parkinsons and other conditions...

Z: Mm hmm.

D: ... earlier by being able to perceive that. It takes a lot of practice...

Z: Yes.

D: You have to look at a lot of eyes.

Z: Like when you have fuzzy vision, it can be an indicator of MS or other enervation diseases.

D: Yeah, subclinical really. I went to this one training where it was about the balance mechanism... and you have to look into the eyes and he had us all looking... everybody looking into their eyes... and we had light shining in our eyes so much... people were getting headaches and dizzy...

Z: Yes. Yes.

D: So we can't take only a certain amount of light into our eyes.

Z: Yes.

D: Especially white light. It will... it actually bleaches out the cones and rods in the back of our eyes.

Z: That's why you're not supposed to stare at the sun probably... burn out your eyes.

D: Some people say when you fast you get able so that you can actually look at the sun directly if you ...

Z: Oh my.

D: I'm not saying I'm going to...

Z: You get nearer to God when you fast.

D: Ah... you could be getting nearer to God... I don't know.

Z: (laughter)

D: You know the eyes are the windows to the soul.

Z: That's right.

D: Maybe it is.

(music)

Z: And who's this we have?

(song: Blue eyes...)

Z: Our musical extravaganza. This... it's "Blue Eyes" by ...

D: Elton John.

Z: ... one of our favorite guys.

D: Elton John, yeah.

Z: Elton. We'll be right back. This is AM 950 Air America Minnesota.

D: Yeah, this is kind of a soft show. All the music is a little soft.

(Music - song: Blue eyes)

(Music – Brown Eyed Girl)

D: Hey, welcome back to the BigBrain Radio Show. And we've got "Blue Eyes" going out and we've got ... I think Brown Eyes coming back in.

Z: Jackson Browne.

D: Oh no, no, no.

Z: Oh sorry. This is Van...

D: Yeah.

Z: My favorite guy. How could I get that wrong? Van Morrison.

(song: Brown Eyed Girl)

D: Yeah. Brown eyes. Now we talked about color of the eyes. And here's something I found out that... 32% of the people have blue-gray irises; 15% have blue-green and 12% have green-brown irises, which causes the eyes to have their color. Okay?

Z: So what does that leave left over for blue and brown?

D: Well blue is 32%

Z: Oh, 32.

D: And 15 really.

Z: And what's brown then?

D: Brown is... green and light brown and 16% brown totally with specks and then 25% dark brown.

Z: So 32% blue, 25% brown. So those are the two dominant colors.

D: Dominant, right, yeah.

Z: Okay.

D: And like I said, people think sometimes they change. You know the word iris, which is part of the eye, is named for the goddess of the rainbow.

Z: It's named after the flower. (laughter) You know what an iris is? (laughter)

D: I think the flower...

Z: Sorry, I just threw that in there.

D: You threw me off there.

Z: (laughter) Gotcha!

D: Anyway, you wanted to talk a little bit about health and the eye.

Z: Health and the eyes... yes. You know you can tell a lot about a person's health from their eyes, because many pre-subclinical conditions start in the eyes. For example, hypertension... if you look in the retina, which is the back part of the eye, with sophisticated cameras and things, you see irregular blood vessels on the retina. This can be an indication of high blood pressure. So they don't look like they should. And diabetes, which we have an epidemic of diabetes and hypertension in our culture, you'll see small circulate areas of bleeding on the retina.

D: Mm hmm.

Z: So sometimes people go in for their eye exams and it's their ophthalmologist that first warns them that they may be a candidate for diabetes and it's really important to get that under control... that blood sugar.

D: You know that's a standard exam I do on everybody. When you see the... the veins are larger than the arteries by more than two to one, they have hypertension.

Z: Okay.

D: And then you also get nicking. So we look at that in just about everybody.

Z: Mm hmm.

D: Because we can tell how much... how their blood is... how well their blood is flowing to their tissues.

Z: Right. And then with that muscular condition that you're talking about, if the muscles of the eyes aren't tracking correctly, you're getting a lot of eye strain... that can be causing a lot of headaches. I think people know that.

D: Well just about every part of our exam also we have people follow our finger with eyes and stuff, because different parts of your body... in order for you to... its call saccades... in order for you to look at something that you want to... you can follow something... that's one part of your brain transfers that motion over to another part very slowly.

Z: Like little clicks... saccades.

D: Yeah, but if you want to look at something really quick, that's a whole different part of the brain in a different order.

Z: Hmm.

D: So if you compare those two and they don't match, then you can tell what part of the brain is fatigued, like with a head injury or a neck injury...

Z: And I had a patient in...

D: ... And I do that on everybody.

Z: I had a patient in yesterday who had headaches coming on everyday by noon, and we finally figured out her glass... her prescription for her glasses was off. But even what makes vision go... if you adjust the spine, because we're chiropractors, it often times helps the vision. Because like we said, the spine is connected to the eyes.

D: I've had people throw their glasses away. And you know what? They were embarrassed because they thought people would think they'd been lying all this time wearing their glasses.

Z: Right. No, you fix the spine, it affects the eyes.

D: We didn't tell them they were going to throw them away. You know ... the...

(music)

D: ... I think people look into the eyes through the iris and actually tell what parts of the eyes... you know you were talking about.

Z: And what's this?

D: This is a little ... we were just talking about.

Z: Health and the eye.

(music: song – Doctor my eyes have seen the years... and the slow parade of fears... without crying... now I want to understand. I have done all that I can..)

D: You know the doctors look into your eyes and they can tell what's going on.

Z: Now that's Jackson Browne.

D: That is Jackson Browne. And what is... the nature... and they look into your eyes and they can tell you with a camera... and the iris ... there's different motions... they'll tell you which organs are not working.

Z: Mm hmm.

D: Remember I went on that 12 week fast I think because the small intestine?

Z: Yeah, they diagnosed your small intestine problems in your eyes.

D: Yes and I went on a 12 week juice fest. That was an interesting thing.

Z: Yeah, that was an interesting time.

D: I went about four weeks too long actually.

Z: (laughter) You were a little orange. I think you had little too many carrots. You had this nice orange glow to you. At least my retina was...

D: Don't do 12 weeks. Six weeks is good (laughter). Anyway, the Doctor in Our Eyes... so that's tying the music in, isn't it?

Z: That's right.

D: We're going to try and tie the music, just like we always have. It might be playing a little bit in the background. A lot of this music about the eyes is really soft. Do you think that softness has to do with the fact that eyes bring that out us... in us?

Z: I don't know Doc, what do you think?

D: Well I'm asking you. You're the genius.

Z: I don't know. (laughter)

D: About those type of things.

Z: I'm going to remind you you said that later. (laughter)

D: (laughter)

Z: I'm going to use that. Remember, I'm the genius.

D: Ah... okay... (laughter)

Z: (laughter)

D: So let's talk more about the eyes, should we? We talked about it in health; we talked about that light coming in, converging, and then the muscles adapting... or accommodation that's called... so that's why most of us wear glasses because we can't accommodate to the one distance or the other. And then there are times where the shape of the eyes change, the



ability for the ... the pupil, which just lets... decides the amount of eye that comes in—I mean light that comes in the eye. Now what a lot of people don't know is those are different systems. The eyes are run by muscles, just like parts of your body. That's where there are a lot of health conditions where the movement of the eyes change. And then the part of the eye that determines the light... you know like you've seen people on drugs with real wide eyeballs...

Z: Dilated pupils.

D: ...dilated pupils and stuff... that's your autonomic nervous system. When you see changes in that you've got bigger health problems because that's a much more serious health problem.

Z: And good vision is all about curves. You want a curved lens. So eye... vision problems come in when it becomes flattened. So some people have Lasiks surgery and they're using this to correct myopia, which people know is near-sightedness... or hyperopia, which is far-sightedness; astigmatism ... that's distorted vision and prysbiopia, that's difficulty adjusting to close distances when one gets to be 40 or over.

D: I hope everybody wrote that down.

Z: Yeah, just so you know what eye condition you have.

D: Here's something I didn't know. The retina, which is kind of what picks up the information and sends it to the brain... is considered part of the brain.

Z: Yes the retina is the part that has the rods and cones.

D: Right.

Z: Did you know that there's three kinds of cones? One for observing red light, one for observing green light, and one for observing blue light.

D: Right. And those combinations give us the other colors... yellow being the first one that's created and the others are created by combinations of use of those cones. One thing we do with patients

sometimes is I'll give them red glasses. That will filter out about 33% of the light that's perceived, and a lot of their symptoms will go away because the brain is not as fatigued. Like headaches will go away... so you'll see people using colored glasses for therapy. And of course sometimes they talk about chakras and health conditions based on colored glasses too... and it's based on that principle you just brought up. Okay?

Z: Right. And rods are for black and white vision.

D: You know there's a blind spot in the eye. Everybody hears about that. There's one in each eye. And one thing that we do is we compare them and if one is smaller than the other, you can tell which side of the brain is working better than the other. And patients always love that.

Z: Is that because it neurologically controls the blind spot?

D: Well see all of the sensory input, except for smell, goes to a thing called the thalamus. And then that sends it to the brain. That's why some ... ever heard anyone tell you that when they put their glasses on they can hear better?

Z: Mmm.

D: A lot of people tell you that. Well the reason they can... when they can see better, the thalamus is stimulated better so the sound coming in... the thalamus picks that up better too.

Z: Hmm. You know one thing I always wondered is... you know when you see a singer singing, a lot of times they'll close their eyes. It must have something to do with focusing... the ... another sense... hearing maybe.

D: Well, using visualization, but also their brain now is free to concentrate on the singing versus the input of the... having to handle the input.

Z: Listening to the tone.

D: Yeah the information does not have to be handled.

Z: Because it's distracting having your eyes open. It's exhausting looking around. We're going to talk about that when we come back. If you're sick, close your eyes to heal yourself. Some great information by a chiropractor out of Santa Monica, California.

D: Oh, how you... yes, I like that.

Z: I love this article and I'd like to let people know because a lot of time when you're not feeling well, the most important thing to do is lay down and close your eyes.

D: I think we ought to... we ought to listen to this cute little song... huh?

Z: All right. We'll be right back after the break.

D: Okay.

Z: AM 950 Air America Minnesota.

(music: Jeepers Creepers)

(music: Bette Davis Eyes)

D: Hey, welcome back to the BigBrain Radio Show. Bette Davis Eyes.

Z: Let's hear a little bit of this.

(song: Her hair was Harlow gold...)

Z: Kim Carnes.

(song: ... her lips sweet surprise. Her hands are never cold. She's got Bette Davis eyes. She'll turn her music on you...)

Z: What do you think Bette Davis eyes are?

(song: ... you won't have to think twice...)

D: There you go.

Z: Yeah.

(song: She's pure as New York snow...)

Z: I don't know how to convey that over the radio.

(song: ... she got Bette Davis eyes...)

D: You know as a...one... there's a whole psychology thing that evaluates personalities...

Z: Yes.

D: ... and ...

Z: NLP, isn't it?

D: No.

Z: No, that's separate.

D: Yeah, that's separate.

Z: personality.

D: But the position of the eyelids and then the size of the pupil they use a lot. And then the positioning of the eyes... how wide they are. Like a person with wide set eyes is considered determined... kind of liberal.

Z: No, wait, wait wait. I love you're talking about this. I have that right here. If you have wide-set eyes, you're called a highly tolerant person.

D: Mm hmm.

Z: You're more permissive of yourself and others. You appear very easy going. You have a tendency to put things off until tomorrow. They often put up with situations too long and need to have better

boundaries. People tend to take advantage of their good nature. They almost welcome interruptions. And they tend to be very popular. People with wide-set eyes.

D: How wide are my eyes? (laughter)

Z: Let's see... you're like right before fish.

D: (laughter)

Z: They're like sliding off the side of your temples. This is explains everything.

D: (laughter)

Z: Versus people with closer set eyes. That would be like people like a tennis player... like... remember how John McEnroe...

D: Really.

Z: ... used to throw those temper tantrums on the court. Very focused tight eyes. He's tight-eyed.

D: Well remember we were talking to that one tennis player...

Z: ... might go with that other end... tight... (laughter)

D: (laughter) We were talking about...

Z: Which tells us a lot about your lower half... no... (laughter) okay...

D: Uh oh.

Z: Uh oh. Stay away.

D: We usually try not to get personal on this show.

Z: Yeah... no... well we're just getting too graphic doctor here I think. Okay.

D: Anyway, remember that tennis player? He was a really good tennis player and the reason he stopped playing because he couldn't... he was able to anticipate, visualize where the ball was going to be before it was hit. And then he lost that ability, even though he was still really good?

Z: How did he lose the ability?

D: He... that's how good they are. They can see... when you look at the... when you study the hands and the eye... hands and eye coordination, what they find out is the hands will do things that they shouldn't be able to do given the amount of time it takes for the light to come in and give them the message.

Z: Right.

D: There's some other... and this is pretty well known now... there are different forms of communication in the body, other than just the straight electrical muscle, brain to cell reaction.

Z: Sure.

D: It's much faster than that.

Z: This is interesting. If something is priority for our survival...

D: Mm hmm.

Z: Like this hand/eye coordination, or emotional information, the brain responds in 17 milliseconds. It's like before you can even think about it. Remember that other book? "Blink"?

D: Mm hmm.

Z: It's like you have the perception before you cognitively can even really interpret what it means. So... but if you're consciously thinking about something with some information, it's 200 milliseconds. So the difference between 17 and 200...

D: So you see these top athletes and they're like having a bad... and then you see them kind of focus... all of a sudden they kind of go into that thing, where they're doing things much faster.

Z: Right.

D: They have to kick in. They almost have to be stimulated by the adrenal glands.

Z: And if you consciously have to make a decision like is that red or green, that takes 1,000 milliseconds. So the difference between 17 ... like an instinctive thing...

D: Mm hmm.

Z: And 1,000... like making a decision process... is very different.

D: And most of our decisions are in between. We layer it... like I talked to you when we were talking about the book "Blink"... they're layered on top of... and when our heart rate is too high, or we're not given enough time, then we make the wrong decisions. We layer it too quick.

Z: Right. And the part of the brain that is essential for this priority ramp up is the amygdala ...

D: Yes.

Z: So that's the one where ... like if people are afraid, their eyes get really wide... that's the 17 millisecond response. It happens so fast if you were looking at someone you might not even catch it. I mean it's just really fast.

D: Yeah, that's the whole reading personality that's part of that. You know the amygdala ... in my lecture I do with money... we react to loss of money the same way as... on the amygdala the same way we react to fear. And then that kicks in to a different part of the ... of the brain that if you do something more than two or three times... three times it becomes a habit... and then when it doesn't happen, that throws us off. That's where addiction comes from.

Z:            Hmm.

D:            And money... we're not really very well programmed ... we're programmed for survival so we're not programmed to save money. We're programmed to spend it, but when something bad happens to it, it really throws us off.

Z;            And we're not programmed to diet. We're programmed to eat. (laughter)... which is another problem.

D:            I think we probably are.

Z:            The survival instinct. It's much easier for us to eat than to not because we're all about avoiding famine and dying.

D:            So let's go back to the eyes.

Z:            Okay good. May I tell about that information about closing your eyes to heal?

D:            Yeah, go right ahead.

Z:            Okay great. So this is from an article... and it says closing the eyes rests the brain and the mind. An electrical rhythm starts as soon as the eyes are closed and ceases immediately when you open your eyes. It's the activity of the eyes that drains us and prevents recuperation and healing. So most of the time if you're ill or not feeling well, whether it's physical, mental, emotional or trauma, the best thing you can do... the elixir for healing ... is to lay down and close your eyes.

D:            Right.

Z:            It's because it cuts off all the sensation. And you know in our culture, a lot of times when people are sick they'll stay home, lay on the couch, and what will they do?

D:            Watch TV

Z:            Watch TV, or read. And that's actually preventing healing. So if you want to heal faster, close your eyes.



D: Well remember when we started I said the second largest sensory input is the light coming in our eyes. And so if we shut that off, the brain doesn't have to deal with that anymore. So now it's available to handle less... you know things like our immune system. In fact the eyes are tied into the immune system very heavily. And our part of our ability to have an immune system, it depends upon the amount of light that comes in our eyes.

Z: Right. Every activity of your eyes depletes your vitality and inhibits the restoration of your health. So if you really need to reboot and rejuvenate you want to close your eyes.

D: Also in that article he says if you fast, because some people do fast for health, you should have your eyes closed as much as you can.

Z: Yeah. Rest and lay down... as much as you can for 24 hours.

D: Remember we were talking to that one guy? He went to that seminar that was 10 days long and he fasted through the whole thing? And then he had to listen to John talk. Can you imagine that what did?

Z: It's so stressful on the body.

D: Yeah.

Z: A fast is supposed to be a time to rest.

D: His father-in-law said he looked terrible afterwards.

Z: Yeah (laughter). So whenever you go to a seminar, close your eyes. If someone insults you "Aren't you listening to me?" you'll just say, "No I'm resting my eyes and listening to you. I'm healing."

D: Well you know our eyes have to do movement, eye position, pupil size... really deal with our emotions, our convictions and our moods. And so people use that to evaluate. And if you were very careful and watch people you will feel ... you will be able to tell exactly what's going on with them. In fact, I think we get pretty good at that. Although sometimes we

make stuff up also. You know we think a certain looks has to be something when it might not be.

Z: Part of the brain adds meaning.

D: So that's another part that we're talking about today is the eyes tend to fill in the blanks. Everybody has done optical illusions and / or things where you see ... you know where they put that thing... Paris in the springtime, etc. etc.

Z: Right and you don't see one of the words.

D: Well there's a ton of the extra letters in there and they never see them.

Z: Like an optical illusion.

D: Yeah we program a little, but what we think is already there. Because remember when the information is going from the retina in those 12 levels, it isn't in any form. The brain puts it in a form so our prediscrimination and our screening process... I imagine even our belief systems... will tend to screen out what we see.

Z: Right. Exactly.

D: I guess it really gets down to the BigBrain concept which remember our perceptions determine how we perceive things...

Z: Our reality.

D: So if ... like I use the example if you're a male and you go to a shopping center you see the computer stores and the book stores. Whereas a female – not always... make sure I'm clear about that – it might be clothes or things for kids etc. Our perceptions are prescreened... what we see and don't see anything else.

Z: And our perceptions then become reality.

D: And the classic is that when you go to buy... get a new car and now you see that car all over the place. Before you never saw it at all.

Z: Right... the awareness of it.

D: So what we see and what is coming in our eyes are not the same thing. And the ability to kind of really be able to go into a room... Houdini was taught this trick... to see everything that's in that room and then close the eyes, have it all disappear and then recreate it in his mind, so that he saw everything.

Z: Hmm.

D: It's actually quite an interesting phenomenon. It's actually considered a training process for certain professionals.

Z: You know and there's a new study they just did that even one drink... one glass of alcohol or beer... decreases your ability to see things. They did a study where they had a bunch of people playing basketball. And then they gave each person a drink. And I think it was like 80% of the people who had a drink didn't see that there was a gorilla running around the basketball court.

D: Are you kidding me?

Z: Isn't that amazing? After one drink.

D: Oh I did see that someplace.

Z: Yes, it was just recently reported. So the current level here is .08 for being intoxicated, but at .04... one drink basically... our perceptions and our vision is already altered.

D: You know I went on line and did the eyes and personality to see what I could come up with... and the whole thing was about the perception of eyes... like what is the first thing that you see... like a man sees in a woman. I thought maybe I could get some interesting ... And the eyes came up a lot. But you know what, the whole thing was basically a dating service. They use that whole thing about eyes and that to get you into a questionnaire to ... I mean it was all groups of people.

Z: Well it's also tied into research. Because there is some research found that people find familiar faces more attractive than unfamiliar ones. So if you look at someone and they look familiar to you... like your mom or your dad or someone you've known... you're going to be more attracted to them. So there is something about affinity and dating and feeling safe in a relationship with somebody... based on if they look familiar.

D: Well they actually said you pick out your mate based on familiarity.

Z: That and farmones, which we'll talk about another time... hormones

(music)

D: Here's something about familiarity I think that's really important for people... this will get a tear in your eye.

Z: Martina McBride.

D: This is good.

(music: song – In my daughter's eyes I am a hero... I am strong and wise... and I know no fear... but the truth is plain to see... she was sent to rescue me... I see who I want to be in my daughter's eyes...)

D: So the reason we played that song is just to show the emotion...

Z: To make everybody cry (laughter). Everyone's crying now.

D: We have emotions tied to our eyes and what we see. So I'm going to play another song that has to do with another member of the family. And it's a little bit different emotion. And we're going to hit the family thing here. So we have these emotions tied together with how we see and who we see... and then who it remembers... like we were talking about...

Z: Familiar.

D: Familiar... there you go. That was the word I was looking for.

Z: That's right. This is Amy Grant.

(music – song: I may not be every mother's dream for her little girl.  
And my face may not grace the minds of...)

D: That's Amy.

(music: song - ...everyone in the world...)

D: So this one is about another member of the family... the father.

(music: Song - ... but that's all right, as long as I can have one wish I  
pray... when people look inside my life I want to hear them say... she's got  
her father's eyes... her father's eyes... eyes that find the good in things,  
when good is not around...)

D: So those eyes actually are assigned characteristics, like eyes  
that find the good in things, the eyes that see both sides.

Z: I think she's talking about God here... like God the father... but  
that's okay... father too. Hopefully they did have that kind of father.

D: Well I think that people can do the same. Okay?

Z: That's our challenge.

D: Well let's do one more... should we? Let's go up a number.  
And this is one that everybody thinks about.

Z: Everybody has one of these.

D: This is Bette Midler. They for sure have one of these.

Z: (laughter)

(music: song - ... I got my mother's eyes and my father's hair... does  
anybody really care... it's getting cold out here. Well I keep walking with  
my head held high... with my head to the sky... with my mother's eyes.  
And my mother's eyes are with me... in the darkness that's been paid for...  
just to name a stranger...)

D: So I'm sure they raise different types of emotions. Obviously the one about the daughter probably gets most people.

Z: (laughter)

D: Every time I hear it, it gets me. Okay? Of course, I have two daughters. And... so emotions in the eyes are very, very important. And ... in fact if we really take the time to look at people in the eyes, we really actually become much more powerful. What do they say? You're supposed to look at people's eyes?

Z: Look people directly in the eyes... you're probably being truthful or congruent.

D: And it has a little bit more of an intimacy... different types of intimacy, but it definitely is more intimate.

Z: That's right. You know there's a science of NLP where depending on where your eyes go, you're either remembering something or creating something... so you can... if you're really good at this you can kind of tell if people are being congruent or they are making something up.

D: Yeah, if you look up and too the right, you are making it up. So if you ask people a question and they look up and to the right, now... and if they look up and to the left...

Z: This is if they are right-handed by the way.

D: Yes.

Z: Because it depends on how the brain's wired.

D: Or if they're... members of Basque, which is a French community...

Z: Yeah, there's always exceptions to everything.

D: The French Basque, you couldn't count on their eyes, or something.

Z: But if you ask someone a question and they look up and to the right, it may just be that they can't remember and they're trying to make something to sound good... they're confused... or it could be they're out and out lying.

D: Yes. You can't say for sure. Look up to the left...

Z: If they look up to the left...

D: They're recalling...

Z: They're trying to access the information to remember it.

D: And when you go right, sideways right... you're auditorily, with your ears you're trying... you're actually creating it.

Z: Like if I asked you imagine the sound of a train's whistle.

D: Yes.

Z: Then you could watch their eyes go over to the right, if they're right handed, because they're going to go in there and create that sound. Versus if you say "Can you think of one of your favorite songs?" Now they're trying to access their memory... their eyes will go laterally to the left.

D: Right. So the eyes tell you what's going to go on. And you can look at people... and I wouldn't necessarily use it all the time, but you certainly can...

Z; It is helpful.

D: And if your eyes are going down and to the left, you're having an internal dialog with yourself.

Z: Yes, you're accessing something internally.

D: And when they go down to the right, you're feeling something ... you're trying to feel something. Not necessarily words, but feelings.

Z: Kinesthetics.

D: Yes. So that's kind of interesting. And NLP is very powerful. It was very powerful about ten years ago. And who's the big...

Z: Tony Robbins.

D: Tony Robbins has used that and then they kind of had a little falling out. But he used that when he first started quite a bit. And a lot of people...

Z: Yeah, I think he was trained in NLP.

D: Yeah.

Z: They call it eye accessing cues... the specific part of that.

D: Well the people that did it were brilliant. Okay? Griddler and Bandler were excellent. But there was an art to it also.

Z: This started as early as 1890 with American psychologist William James. He had a book actually about this... talking about the movement of the eyes.

D: You know there's some people that say you can correct a lot of eye problems through exercise, etc. And there's an author by the name of W.H. Bates. And you can go on [www.indiangyan.com](http://www.indiangyan.com) and you can get that book. And if you're interested in doing a more physical approach to ... to recreating your eyesight, instead of laser surgery, etc., etc.

Z: Oh, doing exercises instead of having surgery.

D: Yeah, there's a whole science to it, but most people...we're a little lazy and we won't do it.

Z: You know people with vitamin deficiencies too can have a lot of eye problems so it's important to make sure you're healthy for your vision. Come on back. This is the BigBrain Radio Show. AM 950 Air America Minnesota.



(music: Song – “Can’t take my eyes off of you”)

(music: Song – “Eye of the Tiger”)

D: Hey, welcome back to the BigBrain Radio Show. We’re tired of having the soft music. We’re going to drive into Saturday morning.

Z: Eye of the Tiger.

D: Let’s have a little intensity.

Z: This is by Survivor.

D: Oh yeah.

(music)

D: So that’s called the Eye of the Tiger... we got the eye thing in there.

Z: Yep, by Survivor.

D: Tiger’s a predator so everybody go out and have a great Saturday.

Z: (singing) Eye of the tiger... oh, sorry.

D: (laughter)

Z: (laughter) we’ve got to hit a chorus, don’t we?

D: Yeah we do.

Z: Now you got me going... gotta hear it.

(song: ...did my time, took my chances...)

Z: Took my chances.

(song: ... Went the distance, now I'm back on my feet. Just a man and his will to survive...)

Z: Can't sit still to this one.

D: This is more like the music...

(song: So many times it happens to fast...)

Z: Love the drums on this song.

D: This one gets you driving.

(song: ... you change your passion for glory. )

D: Now drive straight guys.

(song: ... Don't lose your grip on the dreams of the past. You must fight just to keep them alive. It's the eye of the tiger, it's the dream of the fight... rising up to the challenge of our rival...)

Z: There we go. I feel better now.

D: There we go. All right.

Z: I was getting hot and not getting any release. We had to get to that chorus. (laughter) Okay... so...

D: You know what I did... I went and looked at some other books that I had. And I just wanted to review what we started at the beginning. 99.9% of the universe is light... because of all the stars. Now it looks black, but it's at a different frequency than we're used to visualizing. If we had the proper cameras... you've probably seen pictures of it where it's all light. And so light is basically the essence of life. In fact, Freeman Dyson who won the Nobel Prize for this, said that consciousness is charged particles of light. And so... you know... and we all think that... we always look to the heavens for consciousness... so we don't know what's coming towards us. And that 99.9% of it we can't see.

Z: Hmm.

D: So as we have gotten more sophisticated... we now have telephones that you know go across... around the world... and we ... it's like they're sitting next to us... We need to look at the possibility that what's coming in... we actually have the ability to perceive and see much of what we didn't think we can. And so the eye... we may be on evolutionary status in our ability to visualize and see... and to hear what's coming in to us. Our brain picks it up... I'm almost positive that we are a broadcasting and receiving station... and that's where geniuses come from... and we can pick it up. So if we have less stress in our life, our ability to perceive that.

Z: You know from a Biblical point of view, they say that we can't even see or behold... if we could see or behold what's really possible, it would destroy us. So I can't wait to get to heaven so I can see it all.

D: Well in the galaxy...

Z: The glory of God.

D: ... in the milky way galaxy, there's a cluster of 300 billion stars, which has the appearance of one star... that if we could see that, it meet that criteria.

Z: Hmm.

D: From whence the light comes...

Z: Then hence it goes.

D: So anyway, there was a book called "The Hand", which is one of my favorite books because of the chiropractic...

Z: Doesn't sound like it has anything to do with the eye, but...

D: Well, it does. I went to that and I looked in there and he... the hand of course is very integrated into the brain. But he started talking about puppeteers... most of what they do and how they make things work are based on the mechanisms of the eye muscles. They looked at the leverages and how the eyes could do so much... and they copied that in terms of their finger movements that they would make for the puppeteers. And

Descartes... everybody has heard of Descartes... he's the one who kind of separated spirit and body... he thought the eyes... muscle... everybody used to think eyes moved not due to muscles, but due to gasses or spirit.

Z: Mysterious gas ...

D: He thought fluid filled up the muscles and made them work. And then Galvante... entered...electricity came along and said it was electricity. But the perfect example is hand and eye coordination and jugglers are the perfect example of that.

Z: Huh. That's good. Magicians too.

D: Yeah and like I said before, human vision is our ability not to just detect motion but to make higher levels of feedback. And so... I'm going to use the word evolutionary, not to contradict or get anybody upset, but we are continuing to evolve. Our ability to see and use our hands and our eyes and...

Z: Growing and distinguishing.

D: Yeah, there is actually...

Z: Differentiating.

D: ... And like we talked a little bit at the time... we represented the internet as being almost the ... the beginning of consciousness evolution versus biological evolution.

Z: Hmm.

D: Okay? And then there was a book called the "Essential David Bohm"... and he has a book called... he writes about the implicate order of the universe... that everything is ordered. I don't know if everybody remembers that I used to study a thing called Browning movement... you know that random movement under a slide here. Do you remember that?

Z: Oh boy, that's like 10<sup>th</sup> grade or something.

D: Yeah... well they found that actually has a pattern and order to it. Everything has an order. And so he... he compared listening and seeing... Music is listening to the implicate order. It seems like it's tied together, but it's a series of individual notes. And vision is the same thing. It's a series of individual events. The movie being the ... movie you know where they show the different separate pictures...

Z: The little clips?

D: But the move fast enough it all seems like one.

Z: Mm hmm. Mmm.

D: And he says so that our ability to take unbroken... taken broken seams and put them together and integrate them is what makes our brain so... because it creates the implicate order.

Z: Cool.

D: Cool.

Z: This book, "Vibrational Medicine"... love that book.

D: Well in that one, it just said that the ruby is one of the ties to the eyes. And it maintains energy. It's for failing energy to the eyes. And also it ties to the heart and opens to love.

Z: So the vibration of the stone... a ruby... is healing to the eyes and the heart.

D: Yeah... people use crystals and that... Then there was another book called "Body Electronics" by Tom Chavez... and ... they have a lot to do with ... They use the eyes to determine how much energy moves around and how to organize it and a lot of chakras. It's quite a good book. People might enjoy looking at it.

Z: You know people thinks some of that is kind of woo-woo stuff, but I think kind of the point behind it is there's an energy and a vibration... and a frequency. And if you can tap into that, you learn different things and it's healing.

D: Well the other thing you'll notice is that everything we give you is tied... it may be woo-woo, but it's all tied into some scientific basis or background.

Z: Right. Things we thought were woo-woo actually do have a scientific basis.

D: And this whole profound concept really endears us to our vision of a spiritual god or universe. Everything is connected. And we're confused sometimes by religion, which is kind of back in the old way of looking at things... you know everything is cut and dried.

Z: Can be limiting.

D: Yes. We want to open the vision to see that there is really a magnificent... and the eyes let that light come in that do that. So... we have our final song that we want to play for that. Okay?

Z: This is one my favorites... Michael W. Smith, "Open the Eyes of My Heart"...

D: Thank you for today. Have a great BigBrain day week... a BigBrain week.

Z: Thanks. This is AM 950 Air America Minnesota. We'll be here next week.

(music – song: ... sing holy, holy, holy... Open the eyes of my heart Lord... open the eyes my heart. I want to see you. I want to see you. Open the eyes of my heart Lord, open the eyes of my heart. I want to see you. I want to see you.)

end of tape