

#298 - The Relationship Between Positive Psychology and Health Outcomes with Lisa Aspinwall, Ph.D.

David Van Nuys, Ph.D., aka Dr. Dave interviews Dr. Lisa Aspinwall

Introduction: My guest today is Dr. Lisa Aspinwall, an associate professor of psychology at the University of Utah. She was a recipient of the Templeton Positive Psychology prize in 2000 as well as grants from the National Science Foundation and the National Cancer Institute. To learn more about Dr. Aspinwall, please consult our show notes at Shrinkrapradio.com. Now here's the interview.

Dr. Dave: Dr. Lisa Aspinwall, welcome to Shrink Rap Radio.

Aspinwall: Thank you.

Dr. Dave: I'm really glad to have you on the show. I saw on your resume that you were a winner of a \$50,000 Templeton Positive Psychology prize in 2000. Allow me to offer you a belated congratulations.

Aspinwall: Thank you.

Dr. Dave: That's a very prestigious award. Was that in connection with a research proposal?

Aspinwall: It was in connection with my research on optimism and also positive affect or positive mood and how people process negative information. And our interest there was whether these good expectations or good feelings are helpful or hurtful to people as they confront adversity.

What we were able to show in a series of laboratory studies is that whether you take naturally occurring positive beliefs like optimism, the belief that things in general will work out for the best, or you induce positive moods in the lab it seemed to improve peoples' ability to attend to and remember negative information that might be useful for them.

Dr. Dave: That's fascinating. How did you get drawn to -- you know optimism certainly became mainstream as a result of Martin

Seligman's work and I'm wondering how you came to be involved in positive psychology.

Aspinwall: That started with my graduate work at UCLA with Dr. Shelley Taylor and her work on cognitive adaptation. It's a process that she's examined among people managing breast cancer and HIV infection and other serious illnesses. What she was finding is that people found a way to find meaning and mastery in what had happened to them even if what had happened to them was quite bad. The question was how do people do this? Why do people do this and is it ultimately good for people or not? Is it just a way to make us feel better or is it really adaptive in that finding meaning and mastery in adversity helps people handle whatever is next in terms of their medical care.

Dr. Dave: Well, that's really right at the heart of issues that we are going to be speaking about today. Are you able to encapsulate the findings of that research?

Aspinwall: Absolutely. Even when it looks like people shouldn't hold hope, for example gay and bisexual men early in the HIV epidemic who thought that their immune systems were stronger than other men and they'd be less likely to share or convert that is to develop symptoms of AIDS and go from being HIV positive to being symptomatic, even those folks seemed to live longer. Even though the beliefs that they held, those positive expectations seemed at odds with medical knowledge at the time.

Dr. Dave: Yeah, that's fascinating because that would be the sort of counter case that people would offer against optimism and positive thinking.

Aspinwall: Right, is that it's all very fine and well as things are going along well in your life but actually the study of positive thinking among people with serious illness offers a very different perspective. What seems to happen isn't that people persist in believing that they can continue to control their prognosis but people seem to shift and invest their interest in meaning and mastery in other aspects of their life like their close relationships or their personal priorities. It's not the case that people persist to the end believing that they'll be cured but rather that these early beliefs allow people to stay involved in their medical care and treatment and to avoid becoming discouraged and isolated.

Dr. Dave: Wonderful. Well, I've been doing a series of interviews on positive psychology and recently focusing not only on the pros because initially I was swept up in the enthusiasm of it all so I have a lot of shows on the pros.

Then more recently I've been focusing a bit on the critiques and in that connection I recently interviewed Dr. James Coyne of the University of Pennsylvania Medical School. In our interview he described a number of meta-analyses discrediting the notion that interventions derived from positive psychology have had any demonstrable positive impact on the lives of cancer patients in particular.

He looked at such things as the impact of positivity on fighting spirit, on benefit finding or what might be called reframing, on positive adaptational outcomes, post-traumatic growth and survivability.

In one or more journal articles you've disputed his conclusions. In fact, you say he's throwing out the baby with the bath water. So why don't we start there. How so? How is he throwing out the baby with the bath water?

Aspinwall: Absolutely. By focusing only on a single criterion and that is on survival rate. For many of the researchers doing interventions to provide psychosocial supports to people with serious illnesses like cancer, questions of quality of life, anxiety and pain management and social functioning are important outcomes.

Pinning everything on whether life is extended. And if life isn't extended even for very serious cancers, like with some of his own work with head and neck cancer, it would not be reasonable to have that expectation. Then declaring the whole enterprise a failure, I think is overreacting.

Dr. Dave: Yes, and the research you described earlier certainly would certainly be an example of that, I think.

Aspinwall: Right. I think he does make some good points. One point that particularly resonates with me and that I really agree with is that cancer may be the only condition where we eventually say to people that you should be able to cure yourself. That's very dangerous and I will do anything it takes to discredit that kind of

thinking because it implies that people whose illness is progressive and who don't survive, somehow didn't want it badly enough.

Dr. Dave: Yeah.

Aspinwall: I think that's a very, very unfortunate misunderstanding of research on positive thinking and adaptation to serious illness.

Dr. Dave: Yeah, and it's also kind of a New Age assertion if you will and one that I was sensitized to by my mother who died of colon cancer. She wasn't coming from the New Age place but rather from a religious perspective. She felt for a while that she had a remission and then later when she fell back, she felt terribly guilty feeling like she had lost her faith; that she just hadn't held on to her faith strongly enough.

So I'm very leery of anybody who kind of implies that you've kind of caused your illness because you are not thinking the right kind of thoughts.

Aspinwall: Oh, absolutely. I think it is a disservice to people with cancer and their families.

Dr. Dave: Yeah. Now you say of Coyne that he neglects -- You have a section in one paper I read called "Setting the Record Straight." You were disputing, I guess, his claim that positive psychology does not -- you say that positive psychology does not promote false claims about cancer care or cure.

He was kind of attributing to positive psychology that it makes that claim but you say that really researchers have not made that claim.

Aspinwall: No, that's seriously misplaced. I know the folks at the University of Miami who do a lot of their mind body interventions and in their initial discussions with patients they say, this is not about how to think yourself well. This is about how to access social support and other resources to improve your quality of life. We're interested in studying immune function but this is not a service intended to improve your immune function.

Dr. Dave: Now you say he is throwing out the baby with the bath water. What is the baby?

Aspinwall: The baby is understanding how positive thoughts and feelings are related to human well-being, including health outcomes. The idea that it's related to immune functioning -- there are some very interesting controlled experiments that induce positive affect and measure how people respond to acute stress and find that it can have a protective effect.

There are also field experiments looking at law students. Law students are great for field experiments of people coping with daily stress. Your regular university students are too. But they are able to show that people are able to reduce their reactivity to stress under very controlled conditions even when they are out in exam land. Facing all the stressors of being a student in a rigorous program.

Dr. Dave: Right.

Aspinwall: And that's only one pathway. What I think the field, as a whole neglects, is that there are four or five complementary pathways. And by complementary I mean they are not mutually exclusive. That could explain a positive relationship between positive thoughts and feelings and health outcomes. Those includes things like social behavior, peoples own health behaviors and immune and neuroendocrine functions are certainly part of that. There's coping and then there's the appraisals of the problems that we face.

I think he's looking at one very narrow slice and saying people didn't live longer so let's stop studying this.

Dr. Dave: Mm-hmm.

Aspinwall: And I think that's wrong.

Dr. Dave: Yeah, I may come back to your pathways because that's something that I wanted to ask you about in a little bit more detail. I wonder if you read Barbara Ehrenreich's book, "Bright-Sided." She came down pretty hard on positive psychology and on the whole notion of positive thinking.

Aspinwall: Yes, I've read most of it. I was a little, sort of, big fan of hers and I was actually disappointed that she didn't look more at the research evidence. I agree with her critique of the cultural interpretations that you should be a cultural mandate to be positive at all times and to think yourself well. I think for breast cancer

survivors that's huge. There isn't an unhappy pink ribbon that you can wear. I agree with her. I think it's oppressive and I think it has the potential to be dangerous to mandate positive feelings but I am disappointed that she didn't look at the research.

Dr. Dave: Getting back to Dr. Coyne, one of the things that you said is that he neglects other cancer-related outcomes. What are some examples of that?

Aspinwall: Those are things specifically like pain, fatigue, anxiety, quality of life, social functioning. By focusing exclusively on survival that would seem to say that we should only care about things that extend life not improve the quality of life that people have no matter its lengths.

Dr. Dave: Well, he did focus on some other things. For example, benefit finding or reframing of the cancer experience and I think you are critical of his assertions in relation to that. So take us through, if you will, your critique of his critique of benefit finding.

Aspinwall: (chuckle) That gets a bit involved. I think he's referring to a large scale study by Patricia Frazier and her colleagues that I had not refreshed on. (chuckle) What they were doing was looking at, for the most part, was how healthy young college students who had or who had not had negative life events.

Dr. Dave: Mm-hmm.

Aspinwall: And it wasn't clear that the events were of the kind of magnitude that would change how people think about their values and priorities.

Dr. Dave: Yeah, I think that's sort of the elephant that long has lurked under the psychology tent of so much research based on undergraduate students and that's not always really comparable to real life situations.

Aspinwall: Right. I appreciate what they were trying to do is to study prospectively, that is, to understand something of people's values beforehand, wait to see who has any qualifying life event over the next couple of weeks and then survey them again. That's the only grail for most researchers of life stress that you have to leave enough -- have to start with a large enough sample for people to have big ticket negative life events. Bereavement, for example.

Their own serious illness, serious familial illness and loss, and then follow people over a longer period of time to understand different trajectories.

By that I mean that sometimes people do show increases in distress and the question is for how long. Short term would be fairly understandable. Longer term you would wonder what made the difference. Some people show no distress and some people show distress that they already had which is the reason you want to do a prospective study.

Dr. Dave: Is there not research on benefit finding? Is there not research that supports that the idea of reframing things, of looking for the silver lining or the positive or changing one's attitude towards the event is in fact a good idea?

Aspinwall: Well, it's interesting. What is clear is that people think they've changed. What's harder to demonstrate conclusively is that people have changed and so there's a study I'm thinking of by Amaro and her colleagues that looked at people in the lab and again this is undergraduate students over a much shorter period and no one was dying. What they found is that people pretty much thought what they always thought and that they misrepresented what they thought before so they perceived that they had changed.

Dr. Dave: But there's so many anecdotal accounts of --

Aspinwall: Right and they are very, very telling.

Dr. Dave: -- of people who've really changed the direction of their life. They've changed careers, for example. I have an example of that in my own family where I have a son who came down with cancer and he's totally changed his life. I don't know that his personality changed but he got serious about finding a career that was meaningful to him because the way he framed it for himself was that he kind of felt that the cancer probably was the result of the fact that he had been pretty unhappy with what he was doing with his life and that the cancer challenged him to turn that around. Now he's in a graduate program to become a nursing -- what do you call it? Family practitioner.

Aspinwall: That's terrific.

Dr. Dave: Yeah, finding tremendous meaning and excitement in that. That's just an end of one but there are so many people who've reported similar kinds of turnarounds.

Aspinwall: Right. I think the issue though is are there people who haven't so it would be fairly contrarian to phone into a radio program and say, "I've had cancer and it hasn't changed a thing about me. My priorities weren't wrong to begin with."

Dr. Dave: (chuckles)

Aspinwall: So the appeal of a scientifically controlled study, again we can't have the ultimate one; we can't randomly assign people to having cancer or not having cancer. But if being able to follow a large cohort of people and ask whether there are enduring changes such as the one you described with your son is an interesting question.

Dr. Dave: Yeah, yeah. If it hasn't been done, it should be done I think.

Aspinwall: It's really tough because you can't identify people without a great deal of expense. You can't identify people before their diagnosis.

Dr. Dave: Mm-hmm.

Aspinwall: And once they are diagnosed, if the hypothesis is true that this does create changes in values and priorities, then it may already be too late to get a good baseline.

Dr. Dave: I see. So you are saying that one could do that study retrospectively but there's the fear that it's contaminated by inaccuracies of memory.

Aspinwall: Inaccuracies of memory and people might also add motives to remember particular things -- to remember oneself as less caring or generous before or less serious or less passionate.

There is one incredible example of what it would take to do right and it comes from the bereavement literature and it's going to sound terribly morbid, and it is a bit morbid, but it's scientifically beautiful. It's work by Camille Wortman and George Bonanno on bereavement. What they did is recruited heterosexual couples where I believe the men were between 50 and 60. They recruited

10,000 participants and waited for them to pass away so that they could study the effect to spousal bereavement. So again morbid but fascinating.

Dr. Dave: Yeah, I actually interviewed George Bonanno on my other interview series, "Wise Counsel" podcast. You told us what they did. What did they find out?

Aspinwall: There are many theories of how you're suppose to grieve and what it means if you do or do not display distress over a particular interval. Their findings refute almost all of those theories.

Instead there were four different trajectories of outcomes with short-term distress and then recovery with persistent distress. People who were distressed before remained distressed. People who showed very little distress on a variety of measures and they were all declared by the researchers to be normal. That is appearing with sufficient frequency for us not to call anyone of those people strange in how they managed their bereavement.

Dr. Dave: A very freeing finding because --

Aspinwall: Absolutely.

Dr. Dave: -- through our culture we've kind of internalized a variety of shoulds about how one should mourn; how long it should last, etc.

Aspinwall: Right and I think we've done the same thing with how one is supposed to adjust to a cancer diagnosis. One should be empowered. One should join a movement. One should raise funds. One should seek support. One should find it to be the best thing that ever happened but I think that may not be the case for all people.

When people talk about things such as Jimmy Holingsworth, "The Tyranny of Optimism" or my favorite phrase from the psychologist R. C. Murphy, the "saccharine terrorism," that we should all feel happy at all times even when something happens that should make us unhappy I think is very dangerous.

Dr. Dave: Yes, yes. Now what about the question of post-traumatic growth? That was another concept that Coyne challenged and it is kind of counterintuitive in a way. What evidence do we have? Is that part of the baby that he's throwing out with the bath water?

Aspinwall: Absolutely. I mean as you point out, there's ton of antidotal evidence and also some large scale survey studies of people managing a wide range of stressors that people report growth and change. Instead of saying it doesn't exist, ask is it a motivated phenomenon? We want to find it and so we will find it.

How does autobiographical memory work? How good are people at remembering what they were like before? This is slightly out of my area but people who study adult development and narrative often talk about these turning point stories that people tell and that they acquire great meaning in how people think about their lives and I don't think we want to throw those things away.

Dr. Dave: Yeah and to me it's a little bit academic because if a person -- let's say people misguidedly think that they're better and misguidedly they become more optimistic, how can that be a bad thing?

Aspinwall: That's exactly what I wanted to understand in my research. Let's find out if people are optimistic about various things. You can be optimistic about life in general or about finance or romance or medical care or whatever it is and ask once those beliefs are in place what is the relationship to paying attention to bad news in the same domain.

What we consistently find is that people pay more attention to bad news, potential risks and failures even when they have an equal opportunity to read only good news. It's not the case that you bury your head in the sand when you're optimistic. It leaves one to ask what is it about optimism that helps people manage negative events and information. Do people feel more able to handle it? Do people crave it in a more positive light? It's not the case that optimism predicts denial of bad news.

Dr. Dave: Coyne focuses on cancer but what about other disease outcomes? You kind of suggested that he's ignoring a lot of other evidence relating to other diseases.

Aspinwall: Oh, absolutely. In the heart disease literature and in the HIV literature, in particular, there's a lot of really good evidence about immune outcomes and survival outcomes as a function of initial positive moods. There are three meta-analyses that show that the predictive value of positive moods.

The reason I'm not saying effect is that these aren't experiments where you induce optimism or induce positive moods. They were measured so the predictive effect of these was just as strong as the deleterious effect associated with such well-known states as depression and anxiety. It's not just the same effect being explained from a different way so the effect of positive states are independent from those of negative states.

Dr. Dave: We're pretty far along this road here but maybe, at this point, I should ask you how you define positive psychology.

Aspinwall: Sure. I think of it as the scientific study of positive thoughts and feelings and how they are related to human well-being. I'd like to see that expanded a little bit to talk about things that promote positive social interactions and well-being at a community level.

One criticism of positive psychology that I agree with even though my own work I'm guilty of this is that it treats positivity as a individual phenomenon that we can all individually be positive if we want to regardless of social situations or economic situations, whether we live in a stable environment, torn by war or not. To ignore social and structural contributions to well-being is a disservice.

Dr. Dave: I certainly agree and it's probably kind of a cultural affect, isn't it, since we live in a culture that emphasizes individualism to such an extent that it's kind of the water we swim in if you will.

Aspinwall: Absolutely. That story that you individually alone can think yourself well is very damaging. It prevents people from seeking social support. It prevents people from seeking others who might acknowledge and say, "Yes, this is a terrible, terrifying, expensive, uncomfortable and painful thing." We should acknowledge that.

Dr. Dave: Earlier you referred to the five pathways to which positive interventions might work to achieve health outcomes. Maybe you could take us through those five with some explanation of the importance of each. I have the list that I found in one of your articles. The first pathway is biological.

Aspinwall: This is the one that has generated the most research attention. Looking at how either naturally occurring positive states or induced ones seem to reduce the magnitude of specific stress responses. There's some very exciting new work on inflammatory

responses being reduced among people in a good mood. For people interested in the mind-body connection that's catnip right there.

Dr. Dave: Right. How was that study structured?

Aspinwall: There are a number of different paradigms. Most studies like that use a laboratory stress paradigm because peoples' lives are so different. Your son's cancer diagnosis is not the same as your mother's. Even if you stayed within what looks like the same event, it isn't.

Dr. Dave: Yes.

Aspinwall: Having a controlled situation where, there are some who will appreciate this, public speaking is a very well known stressor.

Dr. Dave: Right.

Aspinwall: It's very easy to manipulate in a laboratory setting. You tell people they are going to be preparing to give a speech. You point out to the TV monitors where their audience is going to be and you have them wired up and you watch them get stressed out.

For many people math is a stressor. There's a technique called rapid backward serial subtraction, which is a mouthful and it simply means you are given a weird number like 1,013 and asked to count backwards by seventeen.

Dr. Dave: Oh, come on.

Aspinwall: As you do it, people are hectoring you. "Go faster." "Do better." "Get it right."

Dr. Dave: Oh, wow.

Aspinwall: And that discombobulates most people fairly effectively.

Dr. Dave: I think I'm getting anxious just hearing --

Aspinwall: I know this is the task and I'm getting a little bit nervous describing it. It's a very pressured performance situation and the idea there is then everyone is responding to the same thing -- that aspect of control.

Dr. Dave: Must be a precondition where some people are given a positive mood invoking experience and others are not?

Aspinwall: Yes, you can do that in a variety of ways. Depending on the kinds of positive mood you want, people can watch comedy clips, people can look at pleasant pictures of puppies, flowers and kittens. There's music that induces positive mood. Let's see Mozart and divertimenti – those are very nice just to get for your own use.

Dr. Dave: (chuckles)

Aspinwall: You can give people success on a prior task although that contaminates things a bit by changing people's self-belief about their competence. You may just want positive mood and then there's a very nice technique developed by Alice Isen that involves giving people a simple free gift.

Dr. Dave: You say these kinds of interventions in the lab demonstratively create differences in immune response?

Aspinwall: Yes.

Dr. Dave: And inflammation, I think, was what you said.

Aspinwall: Yes, yes, and stress responses like cortisol.

Dr. Dave: Great. The second pathway that you discussed was cognitive and emotional. What are you getting at there?

Aspinwall: The pattern of the kind of studies I was describing earlier where optimists seem to differentially pay attention to bad news when it's useful to them. They orient to it more quickly. They spend more time reading it and they remember it a week or two later. Whereas people who are pessimistic tend to disengage from bad news.

Dr. Dave: The third pathway that you mentioned was coping and how is that different than say cognitive and emotional? That sounds related.

Aspinwall: It is highly related and I'm really glad you asked. Coping in general is effort that people take to solve problems or to manage their feelings about them. A highly reliable finding is that positive

beliefs like optimism and self-mastery, a sense of control and personal agency are related to much more active coping, which includes information seeking, gathering social support, getting advice and so on. Whereas the flip sides of those, pessimism and low personal agency, are related to denial avoidance and disengagement. So sleeping, drinking, doing things to avoid thinking about the problem, avoid engaging with it.

Dr. Dave: Okay.

Aspinwall: What we've argued is that those two pathways, the cognitive and the coping, go hand in hand because if I engage more with the problem, I am more likely to yield information that I can then act on that. Whereas if I'm sleeping at home, I'm not learning anything new so the cognitive pathway wouldn't become relevant.

Dr. Dave: The fourth pathway that you mentioned is social. What are you getting at there?

Aspinwall: That's a really interesting line of work and I think it's probably the most neglected aspect of positive psychology and this is the work by Laura King, Sonia Lyubomirsky and Ed Diener who did a wonderful meta-analysis looking at the relationship between positive mood, optimism and other positive states and social behavior; either the number of friends that people have or the degree to which they report that their social experiences are positive and satisfying and their relationship was very strong.

Dr. Dave: Mm-hmm.

Aspinwall: It leads you to ask what is it about positivity that makes people more outgoing but also makes those interactions go more smoothly and be more satisfying. If we take that to the case of someone managing a cancer diagnosis, someone who's able to navigate how to access social support, not to suggest that people shouldn't help those who aren't in a good mood, but there are dozens of experimental studies that show that when people present with a bad mood, people flee.

Dr. Dave: Yes, right.

Aspinwall: People may conscientiously hang up the phone. Connie Hammond did a study in the 70s on depression and social interaction.

People hung up the phone sooner when the caller was simulating a negative mood.

Dr. Dave: Mm.

Aspinwall: That's unfortunate and implies, wow, that people who actually need help can't get it.

Dr. Dave: Right.

Aspinwall: I think that's terrible but those are the findings.

Dr. Dave: Yeah.

Aspinwall: But those are the findings that people will spend much more time with people who are in a more positive mood.

Dr. Dave: The final pathway that you talked about you described as behavioral. What are you getting at there?

Aspinwall: What I'm getting at there are the individual behaviors that people can take to improve their health—diet, exercise, sleep quality, avoiding risk behaviors like unsafe sexual behavior, getting in fights, smoking, tanning bed use, adolescence substance use. There's really a strong association between these negative mood states and greater risk taking substance abuse behaviors, which is easy to understand. People are self-medicating.

Dr. Dave: Mm-hmm.

Aspinwall: You are in a chronic bad mood; you want to get out of it. One of the things that I think people neglect in this idea that you can think yourself well, is that people who are optimistic tend to take much better care of their health and that could explain some of the good outcome seen for certain illnesses.

Dr. Dave: What does positive psychology need to advance?

Aspinwall: I think it needs to continue to pay attention to these multiple pathways because they suggest that when you're doing research, even on a particular illness, that there are many different kinds of thoughts and behaviors that you should be accessing to try to get a more complete picture of outcomes.

I would like to see it move from its individual focus on exclusive personal responsibility for wellness to include some of these more interactional properties. How do people engage with the health care system? How do people secure and maintain social support especially when they're ill and they're going to need it over the long run. I think that would be good. I don't think it should be distracted by a unique focus on survival as an outcome. There's a lot more to life than just survival.

Dr. Dave: Right. Ultimately, we don't survive. (chuckle)

Aspinwall: Right. Might as well focus on the parts of it that we can control. That would be very consistent with the cognitive adaptation literature.

Dr. Dave: Yeah.

Aspinwall: I think also a clear refutation of these popular views about positive thinking. Things that are reinforced by "The Secret" that you just send good thoughts into the Universe large amounts of money will come to you. That you should avoid people who are in bad health because they will poison you with their negative thinking. All of these things I think are dangerous and they are not related to research on positive phenomena.

Dr. Dave: One of the things that strikes me in your work and the work of others is that it seems like as we move forward the research gets more and more nuanced -- the distinctions that are being made so that some of the broad sweeping generalizations go away.

Aspinwall: Yes, and that is what you'd hope with people becoming more interested in what some of the moderators arguing factors that would make a finding be stronger in one place than another or flat out absent somewhere but very strong elsewhere. I'm all for nuance. It means that we would have a better understanding of how something is working rather than to say a huge main effect that covers everything that seems unlikely.

Dr. Dave: Yeah, in fact, some people are saying well, we need to be looking not only at how positive thoughts and attitudes and so on effect health outcomes but there may be ways in which negative ones actually lead to positive outcomes. Do I have that right?

Aspinwall: Right. That's an argument that Julie Norum often makes about defensive pessimism that there are certain negative sets of expectations that lead people to prepare more for things than they might otherwise. That's true one limitation in that line of work is that the physiological and emotional cost of being always vigilant to negative things do tend to eat away at people's quality of life. And so again, extending the range of outcomes you consider and saying well it helps with this but it's pretty taxing with that.

Dr. Dave: Okay, as we wind down here, I wonder if there is anything that you'd like to add. I've sort of run through all my questions but there might be more to be said here.

Aspinwall: Sure. I think there is one more thing I'd like to emphasize, thanks, about how the field could change. I think we tend to think of positive beliefs as a property of individuals and we talked about that a little bit. It's led to an unfortunate trend to say well then let's only hire the happy people -- people who are high on what's called positive affectivity. I think what that really neglects are other contributors. Some of the experimental studies that show that simply receiving a small gift or one might imagine a compliment from someone else can produce some of the same effects I think is remarkable and it means that we could continue to pay attention to the conditions in which people live and work or the conditions in which people seek and receive medical care and ask do those support positive thoughts and feelings rather than putting it all on people and saying well, some people are just happy and others aren't.

Dr. Dave: Yeah, you know what that makes me think of is my experience in the classroom where some students exude a lot of likeability and they probably tend to be extroverted and very active in class. Yet, I've had to learn over and over again that some of the quiet, more introverted students, are having deep experiences and really processing the information and are standout students even though they are not "standing out."

Aspinwall: Oh, absolutely. If you graded a class only on class participation, your views of how much people had learned would be terribly off. The strong, silent types write wonderful papers.

Dr. Dave: (chuckles) Right, exactly. Well, Dr. Lisa Aspinwall, I want to thank you for being my guest today on Shrink Rap Radio.

Aspinwall: My pleasure. Thank you for having me.