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Broadening and Building Through Positive Emotions

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My research on positive emotions has been motivated by the single, simple question, what good are they? Why should we care about whether people are experiencing interest, contentment, joy, love. Now certainly these positive emotions feel good, and that could be the answer. But then you could ask why exactly do we care about whether people feel good. And, you know, maybe this audience needs less convincing than some other audiences, but on the face of it, the answer is not exactly obvious, even within positive psychology.

For quite some time, in psychology business as usual psychology, which is I've heard Chris Peterson call the pre-positive psychology era, people cared about whether people felt good because that was simply a marker that they weren't feeling badly. That people weren't in despair and depression, experiencing anxiety and all of those negative repercussions that come with those emotions. So positive emotions were critical for telling us what people weren't feeling. And even within positive psychology, according to that older logic, positive emotions are important because they edge out negative emotions. But even within many corners of positive psychology, there's a tendency to view positive emotions as markers of well being or happiness. But possibly positive emotions may do something more than signal the absence of negative emotions or the presence of well being. Perhaps positive emotions have evolved to have a unique, adaptive function or value that we've been largely ignoring. And what I'll argue is that positive emotions don't simply signal or mark well being, but actually produce well being and transform people for the better.

I've been studying positive emotions for about twelve years, and early on, I was convinced that this was an important line of research, simply because very few were doing it. Twelve years ago, if you look at the literature on emotions, and this is still fairly true today, if you just take a review of the literature on emotions, so much of it is weighted toward the negative emotions, and just a handful of it is targeted to the positive emotions. And with that legacy our basic models and theories of emotion have been assumed to cover all emotions, and in general, people assume that emotions, in general, shared the same basic form and had the same basic adaptive function. And this premise that emotions was the unit to be understood led to models of emotion that were built to the specifications of those standout negative emotions like anger and fear. And positive emotions, if they were considered at all, were considered real briefly and often just squeezed into those original models. Well, I want to give you one example of this. Key to a lot of different theorists models of emotion is the idea that emotions are associated with urges to act in particular ways, or the jargon term for this is specific action tendencies. Fear, for example, is associated with the urge to escape, anger with the urge to attack, disgust the urge to expel, and so on.

Now the idea here is not that people invariably act out these actions when feeling emotions, but rather, people's ideas about what they'd like to do narrow in on a specific set of behavioral options. And whether these urges become actions depends on the complex interplay of impulse control, cultural norms, coping styles, a whole host of things. A key idea was that having these specific action tendencies come to mind is what made emotions evolutionarily adaptive. Because these are the actions that work best in getting our ancestors out of life and death situations.

Another key idea that's central to this notion of action tendencies is that these action tendencies reside in both mind and body and that as the, in fear, for example, as the idea of running away occurs to you, your body is also simultaneously mobilizing appropriate anatomic support for that action, in particular, increasing heightening cardiovascular activity.

Now this strategy of linking specific emotions to specific action tendencies has been used for positive emotions, as well, but there's a bit of a problem in that the action tendencies that had been identified were really quite vague. Contentment had been linked with inactivity. Joy had been linked with what was called free activation, which is defined as an aimless readiness to engage in whatever interaction presents itself. Affection had been linked with approach, relief with ceasing to be vigilant, but you could ask approach and do what in particular or cease vigilance and do what. And my basic point is that in the earlier literature, the specific action tendencies that had been named for positive emotions were not very specific. At best, they resembled generic orientations towards action or inaction, but not, they weren't carved out to be as specific as attack, flee, spit. Okay, so this is just one example of how emotion theorists had tended to squeeze positive emotions into the same theoretical mold, because their mission was to explain the adaptive significance of emotions, in general.

So if positive emotions do not share this hallmark feature with the negative emotions of promoting and supporting specific actions, you can ask what good are they. From an adaptive sense, what's their function? To answer this question, I think it's useful to begin to think about positive and negative emotions separately. I think there's good reason to retain these models based on specific action tendencies for the negative emotions, but to start fresh for positive emotions.

In particular, I think there are two presumptions to reconsider. The first is that emotions must necessarily spark specific action. Although emotions do produce urges to act, they seem to be less prescriptive than the negative emotions about what exactly we should do. And free activation is a really nice example of this. It's not very prescriptive.

The second presumption I think that is worth questioning is that whether emotions, by definition need to be associated with urges towards physical action. Some positive emotions, not all, but some positive emotions seem instead to spark changes primarily in cognitive activity, and changes in physical activity are really far secondary. If you think of interest and contentment from this angle, they seem to be more about changing the way we think than changing the way we act. So in place of action tendencies, I think it's more useful to combine thoughts and actions together and think about changes in thought action tendencies, because there may not be as stark a distinction between thoughts and actions within positive emotions. And instead of thinking of these thought/action tendencies as specific, I think it's more useful to consider the relative breadth of someone's momentary thought action repertoire. And using this new terminology, you can simply paraphrase traditional action-oriented models by saying that negative emotions narrow a person's momentary thought action repertoire, and this is without question adaptive in a life-threatening situation that requires quick and decisive action. You want the proper life-saving urges to come to mind. Yet, threats to life and limb are not really typical for positive emotions, and it follows then that this narrowing of action urges that would support quick and decisive action may not necessarily characterize the positive emotions.

Even so, things do change when people experience a positive emotional state, and what I've proposed is that positive emotions have a complementary function and broaden people's momentary thought action repertoires. For instance, joy creates the urge to play, push the limits, be creative. Interest creates the urge to explore, take in new ideas and learn. Contentment creates the urge to sit back and savor your current life circumstances and integrate those into new views of yourself and the world around you. Other positive emotions, love seems to do a combination of these. I think there's ways that gratitude broadens, elevation broadens, as John Haidt has talked to us about a lot, and hope seems to do so, too.

So whereas these broadened mindsets sparked by positive emotion can be contrasted to the narrowed mindsets associated with negative emotions. Whereas a narrowed thought action repertoire is certainly adaptive in life-threatening situations. A broadened repertoire is adaptive in other ways. And most critically, a broadened mindset is adaptive over the long haul, because broadening builds a variety of durable personal resources, including physical resources, social resources, intellectual resources, psychological resources.

And I'd like to give you an example by focusing on the playfulness, that broadened playfulness associated with joy. We know from past literature that play seems to build physical resources. The animal, ethological literature has noted conspicuous similarities between juvenile play chasing behavior and actions later used in survival maneuvers. My favorite example of this kind of creates a cartoonlike image where there's one species of monkey where their young in their play chasing, one thing they do a lot is catapult themselves off of a flexible sapling or bush. And they catapult themselves in one totally unpredictable direction. Okay, and adults of the same species never do this, except when they're escaping predators, especially snakes. So it's the idea that play chasing helped build a very specific physical resource that could save their lives later.

Play also builds social resources. We certainly know this from our own lives, but if I stick to examples from the animal kingdom, Warren Holmes has found that squirrels who are not related to one another, but who play with one another in one season, the first season of their life, are more likely in the second season to sound an alarm call when a predator is nearby for a former playmate. So ethologists used to think that alarm calls, they're so risky, they draw attention to the self, the person who makes the alarm call could very well lose their lives, and they used to think that that was reserved for saving kin. But here he's found that former playmates do that for one another. So play among non-kin served to build up a social resource, someone who would put themselves on a limb for you.

Play also builds intellectual resources. Neuroscientists, Yia Pingsept has studied this a great deal and suggests that play fuels brain development. In his words, he says play lays fertilizer in the brain, especially in the frontal lobes responsible for executive function and impulse control. And he has made the bold claim that what children need, especially those with ADHD is more recess, more time to play, that will fuel brain development and allow them to better regulate their thoughts, their attention, and their behavior in the classroom, and that they need far fewer drugs to manage ADHD.

Now I can give similar examples with other positive emotions. For example, exploration inspired by interest increases knowledge and intellectual complexity, and therefore builds a variety of durable personal resources, as well. So distinct positive emotions not only share this feature of broadening people's momentary thought action repertoire, they also seem to share this feature of building durable personal resources. And the critical part here is that these resources are durable. They outlast the transient positive emotion that led to their acquisition. So by consequence then, an often incident effect of experiencing positive emotions regularly is an increase in one's personal resources. So this is what, in a nutshell, I call the broaden and build theory of positive emotions.

Now the bottom line message is that positive emotions can literally transform people and spur on development, not because people are seeking out development, but because positive emotions feel good, and that good feeling draws people in that direction to have experience these situations more frequently, and that is evolutionarily adaptive design for getting people to develop themselves, simply because it feels good to do so, to play, to explore, to savor, things like that. So positive emotions can literally transform people into more creative, knowledgeable, resilient, socially integrated versions of themselves. Okay, and these various resources that positive emotions build can in turn function as reserves that people can draw on later in other circumstances, even in dire circumstances, and those reserves can improve coping and odds of survival.

You've probably heard about this study that came out a couple of years ago about nuns who were studied across their whole lives, and they actually went back to their writings from early life and found that those who had expressed the most positive emotions early in life lived up to ten years longer than those who had expressed the least positive emotions. And I'm offering the broaden and build theory as a possible explanation for that really remarkable correlational finding. That study didn't tell us how positive emotions did that work, but I think the broaden and build theory might offer some clues that should be tested.

Now the theory itself is still quite young and there are many, many studies that need to be done before we know whether to fully accept all propositions of it. My students and collaborators and I have started on that work, and I'd like to turn now to a sampling of some of that.

I'll first start with the broadening hypothesis. The hypothesis simply states that positive emotions broaden people's attention and thinking or their thought action repertoires, relative to neutral states and relative to negative emotions. And I'd like to describe briefly to you three different experiments. One targets the breadth of attention, another targets the breadth of action urges or thought action tendencies, and another targets the breadth of self views.

In the first two experiments, we induced five different emotional states, and we used two different positive emotions, contentment and joy, compared to a neutral states, and anger and fear were our negative emotion conditions. And immediately following each clip, in one study we used a measure of attention, global local visual processing, another, more direct measure of thought action tendencies. The global local visual processing measure works like this: participants are given three figures and asked which of these two comparison figures most resembles this target figure. Obviously there's no clear right or wrong answer, but this one resembles the target more in terms of global configuration, this one resembles it more in terms of local elementary details, and there have been past correlational research to suggest that people who score high on depression and anxiety are more likely to pick this kind of response across a number of stimuli, not just one, and that people who score high on subjective well being and optimism are more likely to choose the one that matches on global configuration which is an index of, is consistent with broadened focus of attention.

And our goal in this first experiment was to see whether positive emotions would induce this shift in an experiment, so you could link them to them causally. And also to include the critical neutral condition which is missing in this earlier work. So our results support a broadening hypothesis. Compared to the neutral condition, those who viewed either of the two positive films had a larger global preference. Okay, in this particular study, we didn't find evidence of negative emotions narrowing. Neither of these are significantly different from the neutral, even though this one is trending in the wrong direction, but they're not significantly different. I should note that recently we've turned to measuring this broadened scope of attention not through choice tasks like this, but through computerized reaction time tests, and we've found two different tests. We've used a global local processing reaction time test and a Posner's covert attention orienting test, and in both of those, we found that genuine smiles, or Duchen smiles as indexed by facial EMG, eye action and the smile action, predict broader scopes of attention on a later reaction time test.

The second experiment that I want to focus on is one where we used the same set of film clips but measured thought action repertoires more directly, and we did this by asking people who had just seen our films to step back from the specifics of the film and imagined being in a situation in which they themselves experienced similar feelings, and that given this feeling, tell us what you'd like to do right now. List all the things you'd like to do right now. And we gave them twenty blank lines that began "I would like to..." and just let them fill in the blanks. When we tallied what people wrote, we found evidence for broadening

here. Compared to the neutral condition, those who saw either of the two positive films listed more things that they wanted to do right now, and here we see evidence of the narrowing effect—those who saw anger or fear films listed fewer things that they wanted to do. And if you looked at what they said, people in these had more urges to be social, to be outdoors, to be playful, to play sports. And this experiment gives us initial evidence that positive emotions are changing something more directly. We have a broadening of attention, but also a broadening of action urges.

I want to turn now to one more recent study here, broadening of self views. And here we used an index of broadening, we're calling it an index of broadening, borrowed from Art Aaron's work on self expansion. The underlying idea in Art Aaron's work is that close relationships expand the self by increasing our abilities and resources. Put differently, as we become close to another person, that other person's resources, perspectives and identities become ours as well. So this might include their circle of friends, their cooking skills, their views on politics and religion. Self expansion has also been called including the other in the self. Okay, that as people become close, aspects of the other person become incorporated into our own self views. And we reasoned that self expansion is a form of broadening, because as you include the other in the self, the boundaries of the self are becoming expanded, at least made more permeable. And Aaron and colleagues discussed self expansion as a source of positive emotions. They claim that self expansion is the reason why falling in love feels good, because its rapid self expansion produces positive emotions. And what we did is made the reciprocal prediction, that positive emotions also produce self expansion, which may be why falling in love happens so fast. So, and that works because positive emotions broaden thinking. And we tested this using two different procedures developed by Aaron and his colleagues. In an initial assessment, we had participants rate themselves and their best friend on ninety traits, and they also indicated how close they were to this best friend using a one item self report scale called the inclusion of the other and the self scale that Aaron developed. But basically you choose which of two overlapping circles best represent how close you feel to your best friend. Are you this close, this close, this close, and they just get continually overlapping.

The next thing we did was induce an emotion. We used joy, neutral and fear in this case. And then in a computer task, subsequent computer task, participants saw the same 90 traits as they'd seen earlier. They don't judge anything about their friend anymore, they just make a me, not me judgment as quickly and accurately as they can on a computer and we're timing reaction time. Now later, afterwards, based on the initial ratings that we got, we divide all of those 90 traits into those that they share with the best friend and those that are unshared with the best friend. And Aaron's original work, they found that the closer a relationship is, the slower we are to respond to unshared traits. That is, to the extent that your self is expanded to include the other, it's hard to judge whether your friend's unique traits aren't in fact your own. So, for example, the close other becomes so fused with the self, it becomes confused with the self. So if, for example, you're not particularly gracious, but your best friend is, you might in a lot of situations benefit from their graciousness and maybe take you a moment to filter through when gracious comes on the computer that oh, it's not me that's gracious, it's my best friend who is gracious. So that's the logic here.

At the very end of the study, we had them do another inclusion of the other and the self scale. I just want to show you the data from the inclusion of the other and the self scale first. Okay, if you induce a positive emotion, you, on a repeat measure of the inclusion of the other and self scale, you get a lot more self/other overlap. So you've had more self expansion there, simply by showing people a film that induces joy. And that effect was corroborated by what we learned on the computerized reaction time test. Now the first thing you notice here is the large difference between shared and unshared traits. Shared traits are in blue. And the unshared traits are in gold, and this main effect across all the conditions is a replication of Aaron's finding that were slowed on unshared traits relative to shared traits. But there's also, this main effect is qualified by an interaction with the emotion condition where we're slowed even further when you're in a positive emotional condition. But this difference is largest for the positive emotion condition. And so across these two measures of self expansion, we find that positive emotions broaden people's views of self to include the other to a greater degree. So when experiencing positive emotions, people may be thinking because of their broadened cognition more in terms of we than in terms of you versus me. It becomes a broader unit of social importance.

Each of these experiments on broadening are consistent with classic work done by Alice Eisen and her colleagues which shows that positive emotions make people more creative, more flexible in their thinking, more integrated, and we see those findings as downstream consequences of this more basic broadening of cognition.

The broadening hypothesis has clear implications for the strategies people might use to regulate their own negative emotions. Specifically, it lays the ground work for what I call the undoing hypothesis, which is basically that if negative emotions narrow the thought action repertoire and positive emotions broaden this same repertoire, then positive emotions should be efficient antidotes to any lingering effects of negative emotions. Now, the basic observation that positive emotions are somehow incompatible with negative emotions has been around for a long time. The roots of it are in systematic desensitization theory, the practice of using relaxation techniques to combat phobias. But even so, the precise mechanism for why positive and negative emotions are incompatible has not been adequately identified. And it may turn out that broadening is the mechanism. By broadening our mindset, positive emotions may loosen the hole that negative emotions have gained on our minds and

bodies, and dismantle or undo that preparation for specific action that goes along with negative emotions. So one marker of the narrowed mindset associated with negative emotions is cardiovascular activation, which represents the body's preparation for specific actions. So positive emotions by that analysis should quell or undo cardiovascular activation following negative emotions. By returning the body to base line levels of cardiovascular activation, it's kind of setting the stage for people to pursue a broader array of actions than just a flight or fight response.

My students and I tested this undoing hypothesis by first inducing a negative emotion. We did this with a high pressured speech anxiety test, or speech preparation task where college students are given one minute to prepare a speech on why they're a good friend. They're told we're going to videotape this and have it be evaluated by their peers. And amidst this context of anxiety, we introduce one of four different emotions. Here we use films to elicit contentment and joy or a neutral film or, and compare that to a sadness eliciting film. And our dependent measure was the duration of cardiovascular activation to the speech task once the films came on. The undoing hypothesis predicts that those who experience positive emotions right on the heels of a negative emotion will recover the fastest and show the most effective emotion regulation.

Just very quickly, we collected all kinds of continuous measures to index cardiovascular activity, ranging from heart rate to systolic and diastolic blood pressure, and the speech task elicits significant reactivity across all of these measures. And participants are also reporting significant levels of anxiety. The key question with respect to the undoing hypothesis is what happens to this reactivity depending on what films people see next... (inaudible)... levels of activation.

I should have mentioned earlier that if you just show these three films, the one that elicits contentment, joy and neutral to participants and look at what they do to the cardiovascular system, you'd see no difference. They essentially do nothing to the cardiovascular system when viewed against a resting baseline. But in this context, they're viewed against a baseline of anxiety, if you will, and there we see that they can undo thing within the cardiovascular system, even though they don't seem to by themselves create any reactivity. So they differ, the positive emotions differ from neutral in what they can undo although they don't differ in what they, in reactivity in and of themselves.

So the positive emotions seem to have a unique capacity to down regulate negative emotional arousal. In a subsequent series of studies with Michele Togaty, we found that there are appreciable individual differences in people's abilities to harness this undoing effect of positive emotions. Specifically people who score high on a self report index of resilience compared to their low resilient peers, show a faster cardiovascular coverage just like this from a speech task. And more intriguingly, their faster recovery is mediated by or counted for by the positive emotions that they experience in that stressful situation. And that has led to what we call the resilience hypothesis, and that is that positive emotions are an active ingredient that accounts for trait resilience. In other words, resilient people are able to bounce back from adversity quickly because they are people who effectively recruit positive emotions. So it may be that resilient people are using positive emotions intelligently, maybe unwittingly, but intelligently, to achieve their superior outcomes.

Last fall, we had an opportunity to explore this relationship between resilience and positive emotions more deeply in the context or in the aftermath of the September 11th attacks. In the days right after September 11th, I was thinking, you know, who's going to care about positive emotions anymore in this, in what we're going through, and I realized that my bleak outlook there was really the depression about the state of affairs talking, and to combat that for my own sake, I decided that what I needed to do was gather some data that might possibly reaffirm the value of positive emotions, even in that really unthinkable dire circumstance. So I did a follow up study based on a sample that I had tested earlier in 2001, and I already knew their levels of trait resilience, and I knew their levels of certain psychological resources, including optimism, tranquility and life satisfaction. And in the weeks after September 11th, we measured symptoms of depression, we measured the same resources as before, and we also measured a wide range of emotions, including nine different positive emotions, ranging from gratitude to interest, love and more.

And the first thing we found is not surprising. It's that resilience predicts lower levels of depression. This is just a resilience measured earlier in the year predicts how depressed people were after September 11th. And this basically shows you that resilience is a good trait to have. That it buffers you against depression. The more important thing is what we found next, which is that that relationship between resilience and depression was completely remediated by the positive emotions that people experienced after the attacks, how grateful they felt to be alive and have their loved ones be alive, the love they felt for their close others and so on. Resilient people had more of those, and that accounted for this depression effect.

I want to turn now to the build half of the broaden and build theory or the build piece. We've also tested whether over time positive emotions build personal resources like resilience and coping. Specifically, because positive emotions broaden people's modes of thinking, they should also broaden and improve the way they cope with adversity, in effect building resilience over time, not just being the active ingredients of resilience, but actually increasing resilience which can be an enduring personal

resource. And that increased resilience, in turn, should predict future experiences of positive emotions. So in other words, over time, the effects of positive emotions should accumulate and compound, and as the cycle continues, positive emotions should trigger an upwards spiral towards enhanced emotional well-being and growth. Now, the cognitive literature on depression had already identified a downward spiral in which depression and the narrowed pessimistic thinking that it inspires influenced one another reciprocally and lead to ever worsening moods and even clinical levels of depression. That broaden and build theory is predicting a comparable upward spiral in which positive emotions and broadened thinking also influence one another reciprocally and can lead to appreciable increases in well being.

Now Thomas Joyner and I have tested the hypothesis that through broadening positive emotions trigger this upward spiral, and our strategy was to assess positive and negative emotions, as well as the concept that we call broad-minded coping at two time points five weeks apart in a prospective study. And our measure of broad-minded coping included items like I try to think of different ways to deal with the situation, I try to step back from the situation and be more objective, and our aim was to predict changes in positive emotions and changes in broad-minded coping over time. What we found was evidence of at least a fragment of an upward spiral. We have initial levels of positive emotions predicting improvements in broad-minded coping from time one to time two, and that these improvements in broad-minded coping in turn predict subsequent increases in positive emotion. We also tested the reciprocal relations and found that broad-minded coping at time one predicted improvements in positive emotions, which in turn predicted subsequent increases in broad-minded coping. Another way to think about this is that the best predictable of the same variable at a later time is that same variable at time one, that is partially being accounted for by the changes in broad-minded coping. So positive emotion at time one predicts positive emotions at time two, through broadened thinking.

Now importantly, these effects were shown to be unique to positive emotions. If you substituted in negative emotions into these same regression equations, none of these relationships show up as significant. So these mediational tests suggest that over time, positive emotions and broad-minded coping mutually influence one another and mutually build on one another. And showing that through their effects on broadening, positive emotions can build psychological resilience, better coping, and trigger an upward spiral towards improved emotional well being. So it's one way that positive emotions that you feel today can make it more likely that you experience positive emotions down the road.

We also found support for the building hypothesis in our study of students' reactions to September 11th. Here we found that preexisting levels of trait resilience actually predict post-crisis growth in psychological resources. And this is especially interesting because national polls, Gallup Polls especially, indicated that after September 11th, the norm was for people to feel depressed and hopeless. That was pretty normative. But some of those people, many of those people who scored high on trait resilience actually emerged from the crisis more optimistic, more hopeful, and more satisfied with their life than they were before. We had these measures both before and after the crisis. So they experienced you might call it post-crisis growth. And a more important finding was that this post-crisis growth was completely mediated by the positive emotions they reported experiencing. So this shows that positive emotions are the vehicle or the fuel that's building critical psychological resources just as the broaden and build theory would suggest, and it also shows that this building effect or upward spiral occurs more for highly resilient people than it does for low resilient folks. So everybody could potentially have this upward spiral, but resilient folks are sort of on a faster upward spiral. So what these data from the aftermath of September 11th show is that positive emotions remain valuable and functional even during times of crisis. They're buffering against depression and fueling post-crisis growth.

And all of this research suggests that positive emotions have the capacity to transform people for the better. In particular, positive emotions can make people better copers, more resilient to life's adversities, instead of succumbing to downward spirals, leading to depression, people who regularly experience positive emotions can be drawn on an upward spiral towards enhanced growth and well being. The broaden and build theory holds that people who regularly experience positive emotions will not be stagnant, they will not languish. Instead, they will flourish and continually grow towards optimal functioning.

If you consider again those nuns. At aged 20, they were conveying a lot of positive emotions. They got to live ten years longer than those for whom positive emotions were scarce. So I think we're beginning to understand some possible mechanisms in that finding.

So to just return to the question that I said motivates me from the start is what good are positive emotions, why should we care about them. I hope I've convinced you that positive emotions do more than simply signal current well being. They're not just a marker of success from a positive psychology output. They are potentially the vehicle for getting there. And positive emotions should be taken seriously as targets of study, because they can broaden attention and thinking, so that the theory and the data both combine to suggest that these are things that we're beginning to understand. They undo lingering negative emotions. They fuel psychological resilience. They build enduring personal resources like resilience, broad-minded coping, optimism, life

satisfaction. And in doing so, they trigger upward spirals towards growth and enhanced well being. So I'd like to argue that the broaden and build theory begins to explain exactly how those nuns got those ten extra years of life. So, anyway, I'd like to thank you for your attention and take any questions you might have.

Question & Answer

A lot of your studies had transient conditions where the positive emotions (inaudible) And I'm wondering what lies beneath a person's propensity to exhibit positive emotions more consistently across the span of their lives in their day-to-day lives. What's the underlying cause. Is it virtues, is it lifestyles practices, is there an authentic definition of self-esteem that we can tie to it?

Well, you're right, the laboratory studies are critical in sort of seeing what are the in the moment effects of positive emotions, but it's not like resilient people are watching those comedies more often and following the lab paradigm so closely. What I think the best source of—and you can't just call up positive emotions by saying I want to have a positive emotion right now. The best leverage point is to focus on positive meaning, I think. If you look at appraisal or a cognitive perspective on emotions, emotions come from our interpretation of our life events. So when people are interpreting life experiences in a positive manner, or finding the benefit in adversity, or finding and infusing every day ordinary events with positive meaning, those are situations that might be a leverage point for people to increase their levels of positive emotions. And resilient folks we know from some of our research are more likely to find positive meaning in stressful circumstances, in ordinary events. So we're beginning to get a handle on what it is that they're doing to experience those more frequent positive emotions. So it's not necessarily magic, it's sort of how we're interpreting events of our lives. If we're finding meaning and positive meaning and benefit in those, even if they're negative experiences, even if they're seemingly ordinary experiences, you know, there's ways to infuse those with positive meaning. Good question.

How or why do they interpret positive meaning? What's the difference in those that use positive meaning as to those that don't?

How or why do they do it? Hmm. Well, it could be that through experience people realize that it kind of puts you on a better trajectory, so it may reinforce the good outcomes that come from finding positive meaning, experiencing positive emotions, broadening and building. You've experienced those good outcomes that could reinforce the habit of finding positive meaning, but also, the sheer broadening that comes with positive emotions that I've been able to show in the laboratory experiments may make it easier for people to find positive meaning in the next circumstance, because they're not in this sort of narrow, rigid tunnel vision like the world is awful and I just need to survive. They may have a broader mental set that allows them to see, well, this is a bad situation, but look at these good things that are coming out of it. So it may be that there's a reciprocal relationship between broadening and finding meaning that again helps explain this upward spiral and how they're chained together. How it's not just that it happens once, find positive meaning, positive emotions, broadening and building and it stops. But that broadening may set up the stage for the next experience that you have for it to be interpreted in terms of positive meaning and the subsequent positive emotion that occurs. See my sense that it's an ongoing dynamic chain here, that there may be some, because of these reciprocal causality links kind of pulls people up on that upward spiral.

Have you looked at the difference of positive emotions drawn from the pleasant life or the good life, you're talking here about positive emotions drawn from the meaningful life. Is there a difference between those other two types?

Good question. I mean that's a new framework that has been kind of growing out of positive psychology and I think that'll be an interesting thing to look at. I think that the places where positive emotions broaden and build are more in the good life and the meaningful life, and I think of pleasures as something different than positive emotions. Because pleasures are more about bodily needs and satisfactions, you know, being warm, eating good food, things like that. They're a little more basic and hedonic, where emotions, in my perspective and a lot of emotion theorists would share this, really come from meaning assessments and not just from addressing a bodily need. And so that's where I would say it's the good life and the meaningful life frameworks where you'll see this broadening and building.

(end of session)