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Happiness, Hope, and Optimism

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Introduction

On the surface, happiness, hope, and optimism appear to be three different terms for the same concept. But further research will show that they are three very different concepts. Although all three are generally thought of as positive, they each have different qualities. They are not interchangeable!

Happiness

What is happiness? Is it an emotion? Or a state of mind? As we learned earlier in this class, according to many emotion theorists (such as Paul Ekman) happiness is one of the "Big Six" emotions (seven if you count contempt) which also include surprise, fear, disgust, anger, and sadness (Cornelius, 1996). So, now that we have decided that happiness is an emotion how do we define it? And how does the concept of motivation apply to this particular emotion?

There are two main schools of thought on the definition of emotion. Hedonism is the psychological theory that organisms are motivated to seek pleasure and avoid pain (Franken, 1994). Hedonism usually involves the feelings that result from input into the five different sensory systems (vision, hearing, taste, smell, and touch). Happiness then, according to the hedonists, simply involves maximizing the positive effects of the different sensory systems. But happiness is a very complex concept. Maybe it's just not that simple. Cognitive theorists don't think so. Lazarus, a cognitive emotion theorist, defines happiness as that emotion which results from "making reasonable progress towards the realization of a goal" (Franken, 1994). Therefore happiness could have nothing to do with sensory input. If your goal, for instance, is to earn a Master's degree, then completion of the classes or steps leading to that goal, would, according to Lazarus, bring about happiness. In other words, the cognitive theorists view happiness as something you experience on the way to a goal, so happiness is goal-driven or goal motivated, while the hedonists see happiness as the end state or the goal itself. The motivation, according to hedonism, is simply the quest for pleasure and to avoid pain (Parducci, 1995).

Biological Component - Is there a biological component associated with happiness? Studies have shown that high concentrations of the neurotransmitter norepinephrine leads to feelings of elation and euphoria (extreme happiness) (Franken, 1994). Scientists have long known that there is a "pleasure center" or "reward center" in the brain. In 1956, James Olds discovered that rats quickly learned to press a bar attached to electrodes implanted in their brain that would trigger an electrical stimulation in that part of the brain. The human brain has also been found to have a "reward system". Studies with humans have shown that high levels of some neurotransmitters (specifically norepinephrine) can increase feelings of elation and euphoria (happiness) while low levels of norepinephrine have been linked to feelings of depression (unhappiness) (Franken, 1994). So it seems clear that, yes, there is a biological component to happiness.

Learned Component - Is there a learned component associated with happiness? Studies also show that

the applications of coping strategies (learned behaviors) can increase a person's level of happiness. How do coping strategies improve a person's mood? Again, successfully coping with a challenge increases the amount of norepinephrine released in the brain. For instance, aerobic exercise (which is used as a coping strategy by many persons) can actually stimulate the output of norepinephrine by as much as four and one half times normal (Davis, 1973; Howley, 1976). This would explain the phenomenon of "runner's high". Studies also indicate that, like an addiction to drugs, runners (and others who regularly participate in an aerobic exercise) need to increase the amount of effort put forth in order to obtain the same level of arousal. The theory here is that there is a "tolerance" effect and that a person's body gets used to a certain level of the drug (in this case norepinephrine) and needs increased amounts to get the same stimulation.

More recent studies with humans (Stein, 1980) also show that certain drugs, like cocaine and amphetamines, stimulate the release of two neurotransmitters, dopamine and norepinephrine, which activate the reward pathways in the brain. Furthermore, cocaine and amphetamines impede the reabsorption or reuptake of these neurotransmitters leading to an increase in the firing of neurons which results in a persistent state of high arousal or happiness. So it seems likely that there is also a learned component to happiness but only in the manner that learned activities will increase the levels of norepinephrine (and other neurotransmitters) in the brain which bring on the state of happiness.

Cognitive Component - Is there a cognitive component associated with happiness? Studies also show that when people use coping strategies successfully it can lead to feelings of pride or self-efficacy (Lazarus, 1991). Interestingly enough, these studies show that when people are experiencing feelings of pride and self-efficacy their bodies are also releasing a number of chemicals. Among the chemicals released is the neurotransmitter norepinephrine, which produces feelings of happiness (Franken, 1994). So, again, there seems to be a cognitive component to happiness but only in that it leads to increased levels of norepinephrine and therefore the feelings of euphoria that result from the increased levels.

Hope

What is hope? Is it an emotion? Or a state of mind? Most current theories of emotion do not include hope as an emotion (at least not a prototypic emotion). However, in previous times (especially during the Medieval period, before the industrial revolution, when we did not have the benefits of scientific knowledge and technology to explain most natural phenomenon) hope was considered one of the most fundamental of all the emotions (Averill et al, 1990). However, James Averill, a social constructivist, believes that hope does fit an emotional model. Averill bases his conclusion that hope is an emotion on the findings of a study that compared hope to two other emotions (love and anger). Averill and his colleagues found that subjects rated anger, love, and hope as all having the same five features: 1) all are difficult to control, 2) all affect the way you think or perceive events, 3) all affect the way you behave, 4) all motivate behavior, increase persistence, enable one to go on (even in the face of adversity), and 5) all are common universal experiences. But the conclusions derived from this study can be questioned based on the fact that very few theorists consider love an emotion (at least not a prototypic emotion).

So, how do we define hope? Again there are many different definitions of hope, depending on which theorist you follow. But there are several common themes in all the definitions of hope. Hope usually involves some uncertainty of an outcome, typically concerns matters of importance, and usually reflects a person's moral values. Hope is frequently considered a temporary condition that is specific to a given situation and contingent upon one's skills or abilities.

Biological Component - Is there a biological component associated with hope? I could not find any theorists who study hope who supported a biological model of hope. In fact, James Averill states that "hope is not associated with any specific physiological responses or reflex-like actions" (Averill et al,

1990).

Learned Component - Is there a learned component associated with hope? Actually hope appears to be a primarily learned concept. In a series of studies done by Averill, et al (1990), he and his colleagues came to the conclusion that hope includes learned behaviors and thought processes that are acquired through the socialization process. This was demonstrated in a study of the implicit theories of hope as reflected in 108 metaphors, maxims, and proverbs related to hope that are common in many cultures. These findings support the theory that hope is a culturally determined concept and is implicitly acquired by children during the language acquisition process. Additionally there is a strong religious component to hope. Many Christian religions are built on hope and models of hope are implicitly taught in religious teachings.

Cognitive Component - Is there a cognitive component to hope? There is but only in the restoration and maintenance of hope - not in the actual acquisition of hope. Many studies have shown that cognitive strategies such as positive self-talk, reading uplifting books, envisioning hopeful images, listening to uplifting music, and lightheartedness (humor and laughter) are used by hopeful persons when suffering some "crisis" or adverse life event (Farran, 1995). But I could not find any evidence that people actively "think" about hope or about using any of these strategies. We do not seem to "think" about whether or not it would be helpful or wise to have "hope" in any given situation. We are either hopeful or we are not. And, if we are hopeful, it (the condition of hope) seems to "automatically kick in" based on a person's earlier learning.

Hope also seems to be a powerful motivator. C.R. Snyder, a University of Kansas psychologist, posed the following hypothetical situation to college students: "Although you set your goal of getting a B in a class, after your first exam, which accounts for 30% of your grade, you find you only scored a D. It is now one week later. What do you do?" Snyder found that hope made all the difference. Students with high levels of hope said they would work harder and thought of a wider range of things they could do to improve their final grade. Students with moderate levels of hope thought of several ways to improve their grade, but had far less determination to pursue them. Students with low levels of hope gave up attempting to improve their grade, completely demoralized (Goleman, 1995).

This study is not just a theoretical paradigm. When Snyder also compared the actual academic achievement of freshman students who scored high and low on hope, he found that hope was actually a better predictor of their first semester grades than were their SAT scores (which are highly correlated with IQ and therefore widely accepted as a predictor of how successful students will be in college) (Goleman, 1995).

Optimism

What is optimism? Is it an emotion? Or a state of mind? Although some theorists (Lionel Tiger) consider optimism to be an emotion it seems to be more of an explanatory style than an emotion.

How do we define optimism? Two theorists (Scheier and Carver, 1985) define optimism "as a generalized expectancy that good, as opposed to bad, outcomes will generally occur when confronted with problems across important life domains" (Franken, 1994). In general, optimism is used to denote a positive attitude or disposition that good things will happen independent of one's ability.

Biological Component - Is there a biological component associated to optimism? One argument for a biological explanation of optimism comes from Lionel Tiger whose book, *Optimism: The Biology of Hope* was published in 1979. Tiger maintains that when early man left the forests and became hunters

many of them suffered death and injury. He reasoned that since the principles of learning tell us that humans tend to abandon tasks associated with negative consequences it was biologically adaptive for humans to develop a sense of optimism. He further argues that when we are injured our bodies release endorphins. Endorphins generally have two properties; they have an analgesic property (to reduce pain) and they produce feelings of euphoria. Tiger reasons that it was biologically adaptive for our ancestors to experience positive emotions instead of negative emotions when they were injured because it would reinforce their tendency to hunt in the future. Therefore, Tiger reasons, optimism is a biologically induced state (Franken, 1994). In fact, many personality theorists consider optimism a personality trait and not an emotion. They believe that optimism may be an inborn temperament; some people are, by nature, either optimistic or pessimistic.

Learned Component - Is there a learned component to optimism? Several researchers have come to the conclusion that optimism is a thinking style that can be learned. In fact, that is what Martin E.P. Seligman's book *Learned Optimism* professes. Daniel Goleman, author of *Emotional Intelligence*, agrees with Dr Seligman. He believes that hope and optimism can both be learned. He feels that self-efficacy, the belief that one has mastery over the events of one's life and can meet challenges as they come up, lead to hope and optimism. But I disagree with this theory. I don't think optimism can be learned. Dr Seligman's method of teaching optimism relies heavily on active thought processes which I believe is more of a cognitive activity. I do think that optimism can be reinforced or stifled. Additionally, if optimism IS biological (and we currently have no proof that it is) then it would be very difficult to LEARN to have something that is inherent.

Cognitive Component - Is there a cognitive component to optimism? Some researchers, such as C.R. Snyder feel that optimism differs from hope in that it contains a proactive component called planning (Franken, 1994). Additionally, optimistic statements are usually based on logical, concrete facts. Both of these concepts (planning and logic) implies some sort of cognitive activity (as opposed to rote learning or habit). Consider, for instance the following two statements, "I hope that the economy will improve" and "I am optimistic that the economy will improve." The first statement can be made without any evidence to support it. We can all hope for anything at anytime. The second statement, however, conveys more confidence. Optimistic claims are usually based on evidence that can be judged or evaluated in terms of rational criteria.

Like hope, optimism is also a great motivator. In the 1988 Seoul Summer Olympics, Matt Biondi lost the gold and silver medals in his first event, his best event, the 200-meter freestyle, by mere centimeters. Many sportscasters predicted that this early defeat would dispirit Biondi and cost him any chance of winning gold medals in any successive events. They were wrong. Biondi went on to win gold medals in five of his six remaining events (he took the silver in his second event). Why? According to University of Pennsylvania psychologist, Martin E.P. Seligman, Biondi was able to make a successful comeback because of optimism. Seligman had tested Biondi, and his teammates, using the Attributional Style Questionnaire (ASQ) four months before the start of the 1988 Seoul Summer Olympics and Biondi had scored very high on the optimistic scale. Then Seligman had subjected Biondi and his less optimistic teammates to false feedback from their coach during a controlled study. Biondi, and others, were told that they had not swam very fast in a practice he at when in fact they had done remarkably well. Each swimmer was told that they had swam 1.5 to 5 seconds slower (depending on the distance of the event) than they had actually swam. These times were selected because they would be both believable and disheartening. Then the coach told each of the swimmers to "rest up and then try again" giving it their best. As predicted by Seligman the swimmers scoring high on the ASQ did as well or even better than the previous swim session. The swimmers scoring low on the ASQ (the pessimists) all did even worse on their second try. This group of swimmers had been dispirited and had just given up (Goleman, 1995, Seligman, 1990).

Conclusion

So, how are happiness, hope and optimism related? They are all three positive conditions. They are all three great motivators. How do they differ? They differ in the mechanism in which they are acquired. It is also generally accepted that happiness is an emotion and that hope and optimism are not (at least not fundamental emotions). Hope and optimism differ in that hope is situation specific (specific condition) and contingent upon one's own abilities (internal condition). Optimism is an overall explanatory style (global condition) that positive things will occur independent of one's ability (external condition).

In short, it seems, at least to this author, that happiness is nothing more than a biological state brought about by the release and blocked reabsorption of certain neurotransmitters (primarily norepinephrine, dopamine, and serotonin) triggered by physical and cognitive activities. Individual differences, primarily acquired through learning, could account for the differences in reported levels of happiness by different individuals after experiencing certain activities.

Hope seems to be a primarily learned condition. It seems that it is usually learned at an early age through the socialization process. It seems to require little cognitive thought and, in fact, actively thinking about the pros and cons of some situations could lead an individual to lose all hope.

Optimism, in comparison, seems to me to be a primarily cognitive activity. It seems that some people do indeed have a tendency to have an optimistic attitude about life and situations in general, but that their optimism, unlike hope, is based on logical, rational facts that are processed cognitively.

So we have three very different, but complimentary, conditions. One, happiness, being primarily biological in nature, seems to be the most basic, fundamental condition of the three. Hope, being primarily a learned condition, can lead to happiness, and optimism, a primarily cognitive condition which, in the words of one researcher, spawns hope. And, in turn, happiness seems to reinforce optimism leading to a cycle of happy, hopeful, optimistic persons.

Web Resources

[The Psychology of Happiness](#)

This site offers a few conclusions made by Michael Argyle in his book, *Psychology of Happiness*, on what makes people happy.

[Chemical evidence for personality, happiness.](#)

Summary of an article by a Cornell psychologist where he presents evidence for a chemical model of happiness.

[The Need for Hope](#)

This site is a submission from the Institute of HeartMath on the importance of hope.

[FAITH, HOPE, AND JOY.](#)

This is a site called Balance Quest which is committed to searching for the best ideas and tools - be it scientific, traditional, or spiritual - to promote happiness. It is a collection of

resources to cultivate psychological literacy. Headed by a group of M.D.s and Ph.D.s This particular site is a sample from Chapter 10 of David Myers' book *The Pursuit of Happiness*.

Mind & Body "Learned Optimism" Yields Health Benefits.

Summarization of a study done by Martin E.P. Seligman, and Gregory Buchanan, from the University of Pennsylvania on the relationship between learned optimism and physical health.

DYNAMIC OPTIMISM Philosophy and Psychology for Shattering Limits.

A description of Dynamic Optimism, which is a combination of philosophical understanding and psychological knowledge, as theorized by Max More, Ph.D. The construct of "dynamic optimism" focuses on overcoming limits to achievement and happiness.

Der Zeitgeist: The Student Journal of Psychology

Scholarly paper written by an undergraduate which examines the relationship between religion and optimism.

Optimism May Not Prolong Life For Cancer Patients But Pessimism May Shorten It

Summary of a study published in an American Psychological Association publication which considers the relationship between outlook and cancer prognosis.

The Optimist Creed

The philosophy that optimists strive to live by.

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Life satisfaction (SWLS) Vitality Subjective happiness Optimism (LOT) Hope. Agency Pathways Positive and negative affect Positive subscale Negative subscale Psychological symptoms (BSI) Anxiety Depression. .53**a .46**a .50**a .51**a. On the surface, happiness, hope, and optimism appear to be three different terms for the same concept. But further research will show that they are three very different concepts. Although all three are generally thought of as positive, they each have different qualities. Is it an emotion? Or a state of mind? As we learned earlier in this class, according to many emotion theorists (such as Paul Ekman) happiness is one of the "Big Six" emotions (seven if you count contempt) which also include surprise, fear, disgust, anger, and sadness (Cornelius, 1996). So, now that we have decided that happiness is an emotion how do we define it?