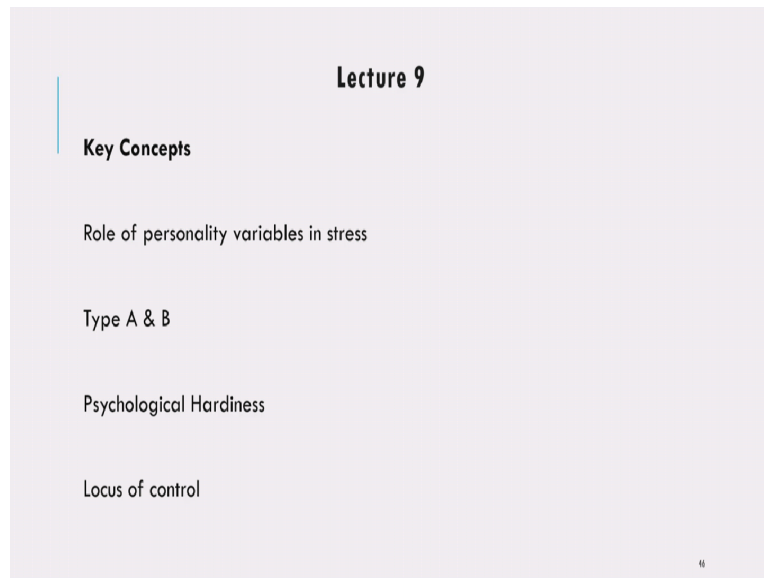


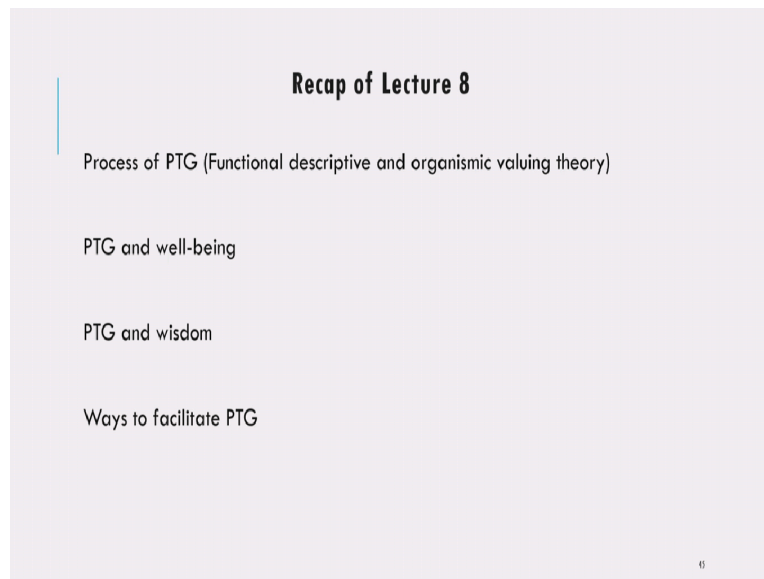
Psychology of Stress, Health, and Well-Being
Professor Doctor Dilwar Hussain
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Lecture 9
Factors Influencing Stress Tolerance

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I welcome you all to the ninth lecture of this NPTEL MOOCs course, titled Psychology of Stress, Health, and Well-Being. So this is the third lecture of module three and overall it is the ninth lecture. So, today we will talk about how some of the personality variables influence our stress reaction. So, before we talk about today's lecture, let us have a brief recap of the last lecture that is lecture eight.

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So, in the last lecture, actually the last two lectures, we have been talking about the concept of post-traumatic growth. In the last lecture, specifically, we were talking about the various theoretical explanation of PTG or posttraumatic growth. How posttraumatic growth happens and what are the theoretical explanations for it.

So, in that, we try to look into some of the popular models. So, we have discussed Janoff-Bulman's three explanatory models and this models. One is strength through suffering. This is a common idea in our collective consciousness that we develop strength or realize our hidden potential through suffering.

The second model was psychological preparedness. So, the idea was that adversities or crises in life or stressful experiences help us prepare for future stress simply because it changes our core beliefs and the assumptive world differently so that whenever such future occurrences happen, we are more prepared for it.

The third model was existential re-evolution. So, basically, that talks about how in the context of traumatic experience, people get involved in existential questions and the meaning-making process and how all this process of meaning making can lead to posttraumatic growth.

So, we have discussed these three models of Janoff-Bulman, then we have discussed the process of PTG using functional descriptive model proposed by Tedeschi and Calhoun, which is one of

the most widely accepted theories of post-traumatic development, which rely on the metaphor of an earthquake to explain how PTG occurs. So, they use this earthquake metaphor, where they say that, just as an earthquake shatters physical structures in our world, similarly traumatic events in our mental world shatters mental structures, especially our belief systems, core ideas, schemas, and assumptive worlds, and that we rebuild those mental structures as a learning process. we rebuild them in such a way that they are more stronger and more resistant to future shock, as we do it, while rebuilding physical buildings after earthquakes.

So, they used a similar metaphor to explain how PTG occurs, and then they elaborated on the processes and factors that are involved in posttraumatic growth, specifically how traumatic events cause distress by shattering our assumptive world and leading to various PTSD symptoms, and then in the process of how we can reduce this distress by using self-disclosure. So, we've gone over all of these processes in detail.

Then we have also discussed organismic valuing theory of PTG, which was proposed by Joseph and Linley in 2005. They use the idea of humanistic psychology that all human beings are intrinsically motivated towards growth. So, whether we actually achieve growth or not, but this motivation is there inside all of us that we want to grow and expand in our life. So PTG is consistent with that idea of growth. So even though many things get shattered by traumatic event, this inner motivation helps us to rebuild our world, which incorporates the growth and expansion in life. They use the idea of assimilation, accommodation to explain the diverse outcomes of trauma. Assimilation is happens when we add new information to the existing knowledge structure, and accommodation is when we change our existing knowledge structures to fit new information. So, they proposed that if we undergo assimilation, if we engage in an assimilation process after a traumatic event, it will lead to recovery, and people will kind of get back to the pre-trauma baseline functioning level. However, accommodation can happen in two ways. If a person undergoes negative accommodation, then obviously, his/her mental structure will change but in the negative direction, which explains all the psychopathology such as PTSD and other disorders. However, there can be a positive accommodation when mental structures change, but it is in a positive direction, and such changes can explain PTG and other thriving experiences.

Then, we have also discussed the relationship between PTG and well-being and most of the research showed there is a positive relationship between posttraumatic growth experiences and the indicators of well-being such as self esteem and other functionings.

PTG has also been correlated with the wisdom. The idea of wisdom is inbuilt in the functional descriptive model of PTG where post-traumatic growth is related to the development of wisdom, a learning experience, and insight into life, after experiencing crisis in life. And there is not much research available, but at least some research indicates that both are positively related constructs. Then we have discussed how PTG can be facilitated in our life, particularly using Tedeschi and Calhoun suggestions. They said one of the main things that can facilitate post-traumatic growth is called expert companionship, who are people around you who can empathetically listen to you to your problems and struggles. Empathic listening and active listening here is very important, if that is available then PTG is facilitated at a much better pace. They talked about specific other pathways that can facilitate PTG such as better understanding about the traumatic experience, education, getting educated to what trauma does to you and the processing of traumatic experiences, in terms of how it is shattering your core beliefs and so on. These are very important for PTG. Emotion regulation or coping strategies, which can reduce your overwhelming emotion, is also very important so that you come to your senses and, and get into the process of reflective processes for PTG to happen.

Self-disclosure is another factor they said is essential because until and unless you discuss and talk about traumatic experiences, PTG is not likely to happen. Narrative development is very important where you develop a coherent narrative after the traumatic event, a new narrative of your life, so that you kind of break from the older narratives and get into the new chapter of your life. So that is also very important. Finally, services, serving peoples who are of similar victims of trauma or survivors of trauma can also facilitate PTG. One is not just concerned about oneself but extend your support to other people who are similar to you. By looking at their struggle also, many times, people experience PTG. So these are some of the things that we have discussed in the last class.

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Lecture 9

Key Concepts

Role of personality variables in stress

Type A & B

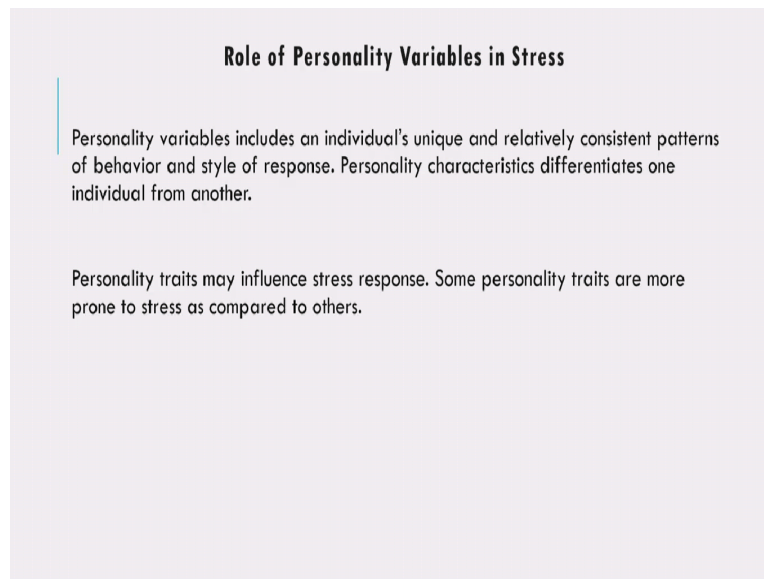
Psychological Hardiness

Locus of control

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Today, we will talk about how personality factors influence our stressful experiences. So in that context, we will talk about Type A and Type B personality traits, psychological hardiness, and locus of control. So these are some of the important concepts that we will discuss today.

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Role of Personality Variables in Stress

Personality variables includes an individual's unique and relatively consistent patterns of behavior and style of response. Personality characteristics differentiates one individual from another.

Personality traits may influence stress response. Some personality traits are more prone to stress as compared to others.

When we speak about personality variables, we simply mean an individual's unique and reasonably stable patterns of action, thought, feeling, or response style. So, what are the relatively consistent thought, feeling, and acting patterns? So that's what we're talking about when we talk about personality in the psychological literature. As a result, these personality characteristics or traits distinguish one person from another, allowing us to conclude that this person is distinct in terms of his characteristics. So, the personality traits or attributes that characterize the person are actually the traits that make that person. As a result, there may be very distinct and consistent patterns of thought, feeling, and acting. So, we must understand that when we speak about personality characteristics, we are referring to relatively stable qualities; we do not refer to anything as personality characteristics if it changes on a regular basis or within a few days; it is not part of your personality and is most likely affected by the situation.

So, personality characteristics have a temporal consistency in the sense that they do not change too much, and they also have a cross situational consistency in the sense that they do not change very much depending on changing situations. There may be some changes, but when you have very strong personality characteristics, you will exhibit those characteristics across situations.

So, if I say someone is extrovert or introvert, these are personality descriptions, it means that this person is more likely to be extrovert, extremely social, highly energetic, and involved in a number of activities. These are some of the extrovert characteristics. As a result, some of these

personality traits are closely linked to our stressful experiences. As a consequence, we will see some of these personality characteristics.

We won't go into too much detail about the conceptual foundations of personality and other topics, but there are a variety of personality theories. Some are trait-oriented personality theories, such as trait theories, which attempt to describe personalities using different traits such as extrovert and introvert, and process-oriented personality theories, such as psychodynamic theories or psychoanalysis, which attempt to understand the various mechanisms of personality. As a result, various theories exist to understand why such personalities exist. This lecture will not concentrate on such descriptions but rather on particular personality traits or attributes that are important in the context of stress.

So, personality traits can influence stress response, as well as what kind of person you are and how you react to stressful situations; some personality traits are more resistant to stress than others. As a result, some individuals are more susceptible to stress and will be greatly affected by stressful circumstances, while others will be less influenced simply due to personality differences.

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So, one such personality trait that is linked to stressful interactions is Type A and Type B personality traits, which we discussed earlier in the context of how stress is linked to coronary

heart disease. So, this kind, these traits were discovered when two cardiologists were conducting research to see if there were any specific people who were at a higher risk for heart disease.

So, in that context, they discovered that there are two types of personality characteristics that may have a correlation to heart disease, which we have addressed in-depth earlier. I will only briefly discuss here. One is Type A people, who are usually very competitive and achievement-oriented. They are highly competitive and have a strong desire to succeed. There is a great deal of time urgency, and these individuals display a great deal of anger and aggression, which may or may not be expressed. They do, however, share these characteristics.

Type B people are the polar opposite; they are more comfortable, have less time pressure in their lives, and are less achievement-driven. As a result, they are a more laid-back, relaxed type of person. As a result of these personality variations, Type A people are more likely to encounter stress as a result of their lifestyle, psychological makeup, and the type of life situation they put themselves in. They are more likely to encounter stress as a result of their characteristics, and high stress contributes to a number of diseases that we have addressed extensively in previous lectures. And it was discovered that Type A people are more likely to develop heart disease as a result of their high stress response or stressful life experiences. But I won't go into too much detail about that because we already talked about that when we talked about how stress is linked to coronary heart disease.

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Psychological Hardiness

Most of my life gets spent doing things that are meaningful

I really look forward to my daily activities

By working hard you can nearly always achieve your goals

How things go in my life depends on my own actions

I enjoy the challenge when I have to do more than one thing at a time

Changes in routine are interesting to me

-Sample items from DRS-15 by Bartone (2007)

Then there's psychological hardiness, which is a personality trait or group of traits related to stress. So, before we get started, let me ask you a few sample questions that are used to classify people who have the psychological hardiness trait. So I'll only read a few sample items from Bartone's DRS-15 questionnaire, which assesses psychological hardiness. So those are a few of the items.

So people are asked whether or not this is valid in their lives. So one item is most of my life get spent doing things that are meaningful. I really look forward to my daily activities. By working hard, you can nearly always achieve your goals. How things go in my life depends on my own actions. I enjoy the challenge, when I have to do more than one thing at a time. Changes in routines are interesting to me.

So these are some of the items that are used to assess psychological hardiness, and you may have guessed that those who answer yes and have a high level of these characteristics are more likely to exhibit psychological hardiness.

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Psychological Hardiness

The concept of psychological hardiness was introduced by Susan Kobasa (1979). She defines hardiness as a set of characteristics that differentiates stress resistant people from those vulnerable to stress.

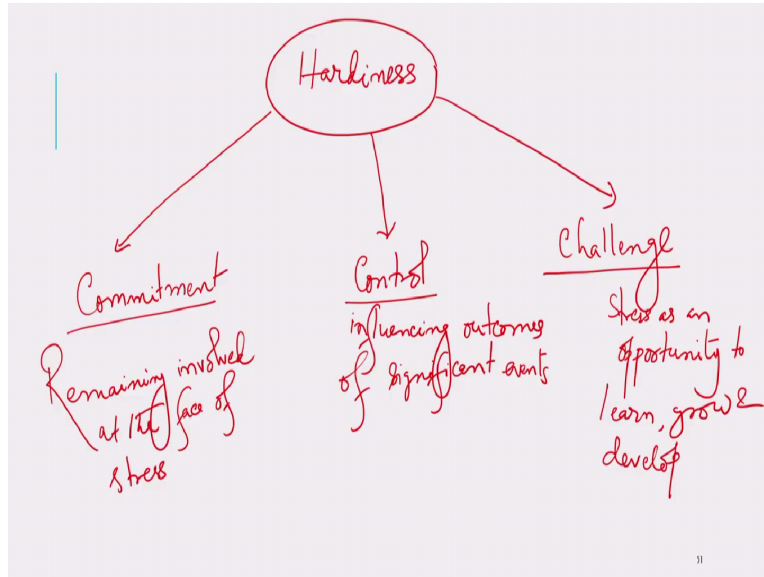
Hardiness is characterized by the combination of three characteristics called 3Cs: Commitment, control and challenge.

So what is psychological hardiness? It is a psychological concept to explain people's behavior and it was first introduced by a psychologist named Susan Kobasa in 1979. She defines hardiness as a set of characteristics. These are set of characteristics that differentiate stress resistant people from those vulnerable to stress. So, and hardiness is primarily characterized by three characteristics, which are called as 3 C's, which are commitment, control, and challenge.

We use the word hard or hardiness to mean something strong. So psychological hardiness means some qualities that make some people psychologically strong. They can endure a lot of pressure and stress in their lives and perform under pressure, challenging tasks. Some people are simply high on it, and some people are not so high in it and are not able to perform under pressure and challenging circumstances.

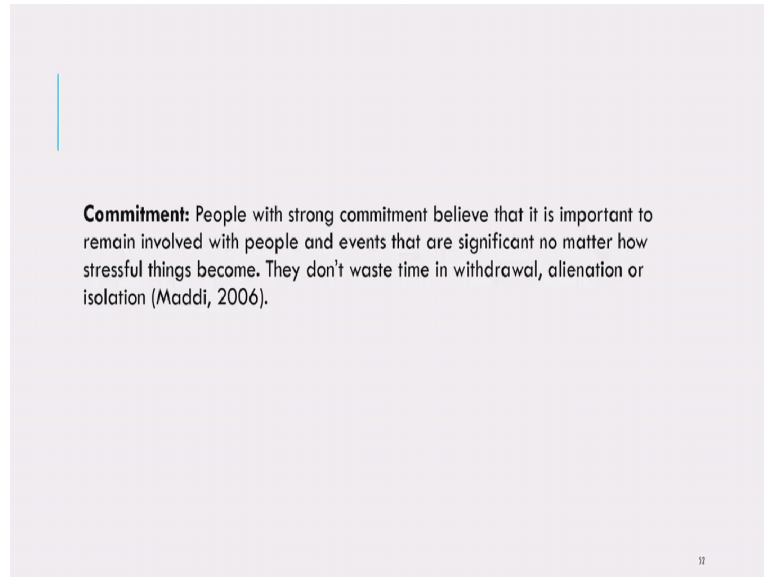
So psychologically hardy people are those people who have this quality of stress resistance and ability to perform under pressure and stress and challenging circumstances. And what are the characteristics of psychological hardiness? According to Susan Kobasa, there are three important characteristics that make a person psychologically hardy or tough.

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I will just write here. So these are the three qualities that are important or at least found in people who are psychologically hardy. They are a sense of commitment, a sense of control, and a sense of challenge. Commitment is about your ability to remain involved with the task, even in the face of stress and difficulties. Control is about your ability or your tendency to influence the outcomes; even when it seems very difficult, one still tries to make changes. And the sense of challenge is about looking at stressful circumstances as an opportunity to grow, learn, and develop oneself. These three qualities are very important. They kind of make or these qualities make the psychological hardiness or make the whole mental setup, which can be defined and psychologically hardy.

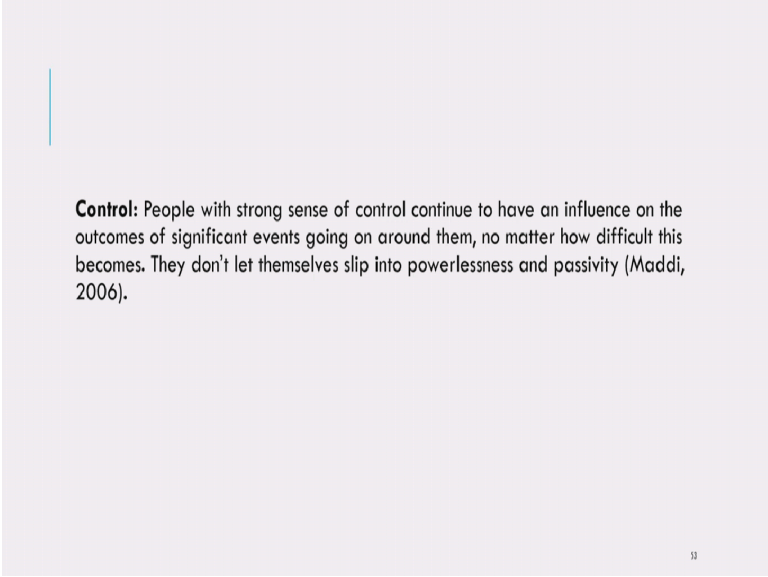
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So I'll just provide a few more meanings for each of these three characteristics. So, people who have a deep commitment feel that it is vital to stay involved with important people and activities, no matter how difficult things get. So, if you have a strong sense of commitment and feel it is necessary to stay involved even in the face of extreme stress, you try to involve, and if the task is big, you try to involve and commit to the task, even in the face of extreme stress.

As a result, they do not waste time withdrawing, alienating, or isolating themselves. People with a high level of commitment, on the whole, do not easily flee a circumstance or a task. They do not quickly withdraw and leave, alienating and isolating themselves. As a result, the tendency does not exist. You won't be able to run away as quickly if you have a high degree of commitment. You will give it your best. So, this commitment may be to the job, to the people, to the relationships, or to a variety of other things. As a result, people who are mentally hardy have a high degree of commitment.

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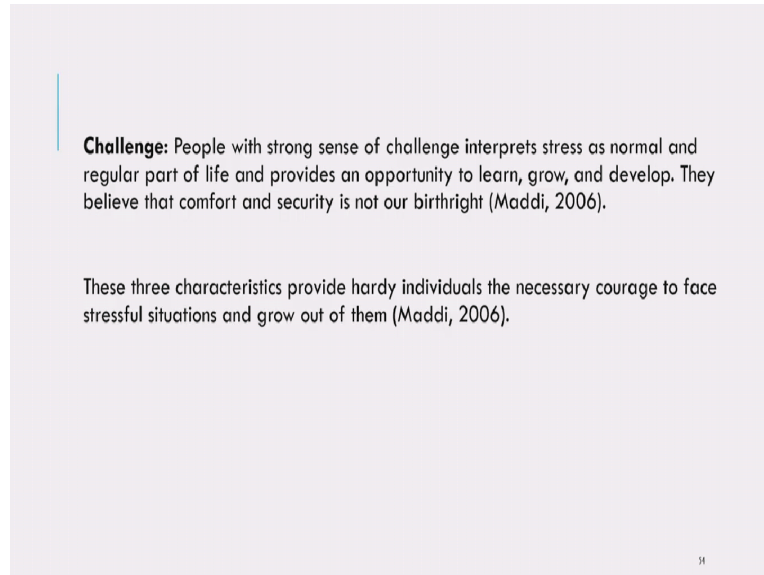


Control: People with strong sense of control continue to have an influence on the outcomes of significant events going on around them, no matter how difficult this becomes. They don't let themselves slip into powerlessness and passivity (Maddi, 2006).

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The second characteristic is a sense of control. People with a strong sense of control continue to have an influence on the outcomes of significant events going on around them, no matter how difficult this becomes. Another thing is this sense of control. Basically, we are talking about the internal locus of control that we will discuss after this, which is also other traits or characteristics, personality characteristics connected with the stress. People with an internal locus of control try to influence events and try to make changes whatever is possible, using their own skills and understanding. No matter how difficult this becomes, they still try to influence the outcome, try to change things. So they do not let themselves slip into powerlessness and passivity so easily. So, people with psychological hardiness have a high sense of control.

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The third quality is a strong sense of challenge; people who have a strong sense of challenge see stress as a natural and expected part of life. So, while stress is an inevitable part of life, it also provides an opportunity to learn, grow, and develop. So, instead of being defeated by an obstacle, you see it as an opportunity to develop your skillset and learn and grow from it, the conviction that comfort and protection are not our birthrights, so you don't always seek comfort.

If you are only looking for comfort, you will never be able to do something worthwhile in your life. People with a good sense of challenge are more likely to put themselves in difficult situations because they see it as an opportunity to learn, grow, and develop. As a result, these three traits give psychologically hardy people the confidence they need to face and overcome adversity. So, these are the three main traits of people with psychological hardiness.

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The initial research

The initial research on hardiness came from a 12 year longitudinal study on 450 male and female supervisors, managers, and decision-makers of Illinois Bell Telephone (IBT) conducted from 1975 through 1987 by Maddi and Kobasa.

The objective of this study was to find out individual differences in stress reaction that can be explained by the concept of hardiness.

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It's also fascinating to see how this whole idea arose from a long-term study. As a result, the first research on hardiness was based on a 12-year longitudinal study. So, Maddi and Kobasa, these two scholars, studied 450 people over the course of 12 years. That is why it is referred to as a longitudinal study: when you study a group of people for a period of time and collect data again and again after a certain time interval, those studies are referred to as longitudinal studies.

As a result, they obtained information from 450 Illinois Bell Telephone Company supervisors, administrators, and decision-makers, both male and female. So it was a US telephone company that was, which is essentially an IBT company, and from 1975 to 1987, they gathered data from people in high positions who do a lot of stressful work, such as supervisors, managers, and decision makers. And the purpose of their research was to determine individual differences in stress reactions. Is it true that some people are more prone to stress than others? And are any people more susceptible to stress than others? They were attempting to examine certain individual differences in terms of the stress response.

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At the start of the experiment the IBT was under the federal regulation. However, after the 6 year of the study in 1981 deregulation hit the company and created a lot of chaos such as the company reduced its employees from 26000 to 14000 in just one year.

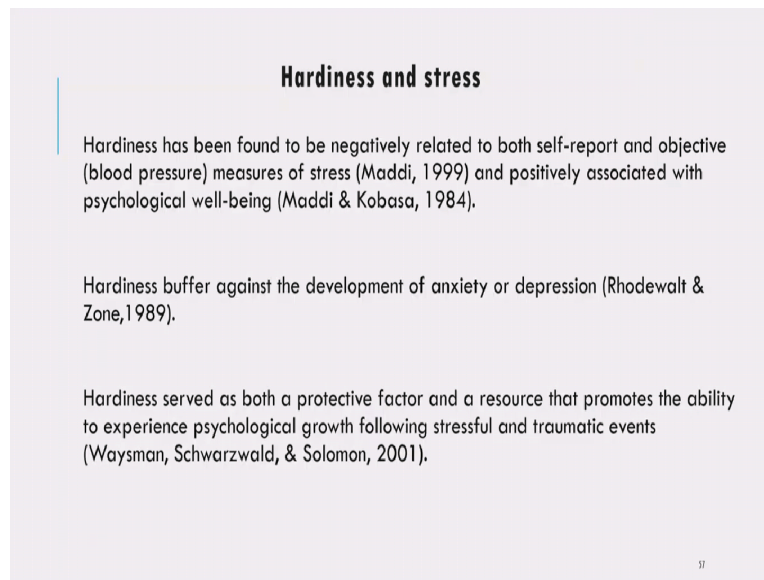
The data collected 6 years after this event showed that about two third of the sample suffered and collapsed in terms of performance problems, violence, absenteeism, divorces, health problems such as heart attacks, mental problems etc. However, the other one third of the sample interestingly not only survived but thrived also. For example, some of them rose up in the management, some joined other companies and made significant contributions, some started their own firms etc.

This research indicated that psychological hardiness differentiated this two groups of sample.

So at the start of the experiment, in that company, that company was under federal regulation at that time. After six years of research in 1981, which began in 1975 deregulation occurred, which affected the company adversely. As a result, it was no longer controlled by the federal government. So it was deregulated, and as a result of this dramatic change, there was a lot of uncertainty in the company in terms of job cuts, structure changes, and so on, as shown by the fact that this company decreased its workforce from 26,000 to 14,000 employees in just one year. As a result, the company was in a state of chaos. So they continued to gather data six years after the incident, and they discovered that two-thirds of their sample suffered and collapsed in terms of performance problems, violence, absenteeism, divorce, health problems, such as heart attacks, mental problems, and so on. So they discovered that two-thirds of their sample actually collapsed under these stressful conditions, and this collapse manifested itself in terms of performance, absenteeism, and a variety of personnel problems in their lives, as well as a variety of diseases and disorders. However, they discovered that the remaining one-third of the sample not only survived but also thrived in their carrier amid the company's chaotic situation. So, many of those in the sample left the organization, and many, many of them rose through the ranks and thrived, they developed from the experience and made substantial contributions, and some even started their own businesses, and so on. As a result, two-thirds of the employees collapsed under the strain or stress of the company's new changes. However, one-third not only survived but thrived as a result of the experience, and they learned that psychological hardiness was the difference

between two-thirds and one-third. That is, people with a sense of commitment, control, and challenge were more mentally hardy and had these three essential attributes that helped them thrive and grow out of that pressure and under challenging circumstances. As a result, they took this concept and performed several studies to discover that it is a significant concept in dealing with stressful situations in life.

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Hardiness and stress

- Hardiness has been found to be negatively related to both self-report and objective (blood pressure) measures of stress (Maddi, 1999) and positively associated with psychological well-being (Maddi & Kobasa, 1984).
- Hardiness buffer against the development of anxiety or depression (Rhodewalt & Zone, 1989).
- Hardiness served as both a protective factor and a resource that promotes the ability to experience psychological growth following stressful and traumatic events (Waysman, Schwarzwald, & Solomon, 2001).

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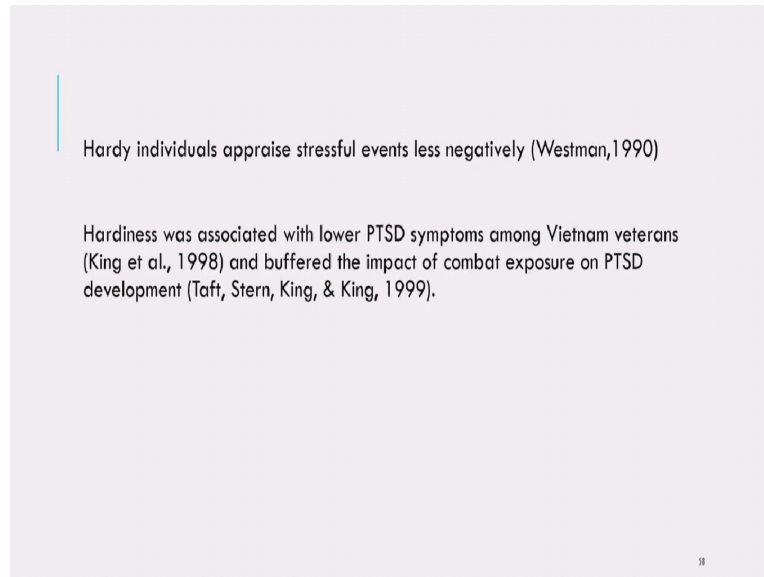
Hardiness has been shown to be negatively linked to both self-report and objective measures of stress in a variety of studies performed later on. So, people with a high sense of hardiness usually feel or perceive less stress, both in terms of subjective and objective measures such as blood pressure, and hardiness was positively correlated with psychological well-being, implying that people with high psychological hardiness also have better psychological well-being.

Hardiness has also been shown to protect against the development of anxiety and depression in studies. As a result, it acts as a protective factor in psychiatric conditions such as anxiety and depression in general. As a consequence, this assists in the prevention of psychological disorders.

Hardiness also acts as a protective factor and a resource that facilitates the ability to develop psychologically after a stressful or traumatic event, according to research. As a consequence, it acts as both a resource and a protective factor. As a consequence, it protects you from stressful life situations, and it also serves as a resource for coping with stress. As a result, you have more

psychological energy to cope with life's challenges simply because you have a different perspective on life as a result of these attributes.

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Research also shows that hardy individuals appraise stressful events less negatively. That is why they experience less stress because, as we have already seen in the first lecture, stress is more about how you appraise it. It is more about how you perceive it rather than an objective situation. So perception plays a very important role, showing that hardy individuals appraise stressful events less negatively.

Research also shows that hardiness was associated with lower PTSD symptoms among Vietnam veterans. So, veterans who had more psychological hardiness reported fewer PTSD symptoms, and it buffered the impact of compact combat exposure on PTSD development. So it also protected them from combat exposure and trauma.

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Psychological hardiness and performance under stress

Individuals high in hardiness have shown better performance under stress in diverse environments and occupations such as-

- military (e.g., Maddi et al., 2012),
- academia (Maddi, et al., 2009),
- sport (Hanton, Neil, & Evans, 2013),
- fire-fighting (Maddi et al., 2007),
- business (Luszczynska & Cieslak, 2005).

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Psychological hardiness research has also been conducted on performance indicators, or how people perform under stressful circumstances, and several studies have shown that people who are high in hardiness perform better under stress in a variety of environments and occupations, including military jobs, academic jobs, sports, firefighting jobs, and businesses.

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Hardiness also predicts better performance longitudinally and helps to buffer stress within a stressful environment (De La Vega, Ruiz, Gomez, & Rivera, 2013).

People with high hardiness respond in a facilitative way to the negative stressors in the environment (Mosley & Laborde, 2016)

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Hardiness also predicts improved results longitudinally, or as time passes, and helps to buffer stress within a stressful environment; people with high hardiness respond to negative stressors in the environment in a facilitative way. As a result, this is a crucial quality. So, rather than running

away from it, they get involved in it and do better while they are under stress. As a result, their performance is facilitated in stressful situations.

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Hardiness training

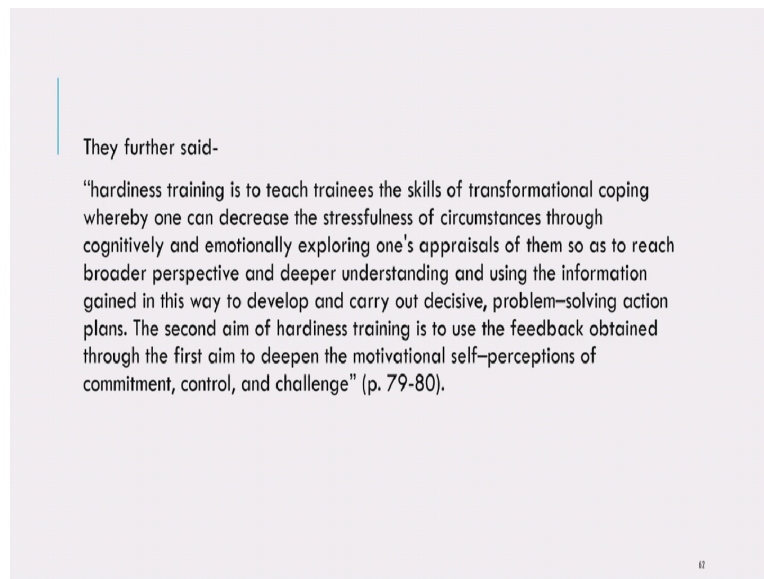
- Several studies have reported that hardiness can be taught.
- Maddi (1987) developed a hardiness training program to enhance the quality of hardiness among people.
- They proposed that “hardiness training engages cognition, emotion, and action in coping effectively with stressful circumstances and uses the feedback from this process to deepen commitment and control and challenge beliefs about oneself in the world” (Maddi, Kahn, & Maddi, 1998, p. 79).

In general, personality traits or characteristics are difficult to alter or modify. However, some research suggests that, while hardiness can be a part of one's personality, it can be modified or at the very least improved in people by the use of training modules.

As a result, some studies have concluded that people can be taught to be hardy. Maddi created a hardiness training program in 1987 to help people improve their hardiness. As a result, some training modules have been developed, and many people still use them. So they suggest that hardiness training engages cognition, emotion, and action in dealing effectively with challenging situations and that the feedback from this process is used to deepen commitment and control and challenge.

So, in hardiness training, people are usually taught how to cope effectively in the environment or under challenging conditions, and how to take input from these coping situations in order to increase or deepen their sense of commitment, control, and challenge, which are three essential qualities to improve for psychological hardiness. As a result, in addition to teaching coping mechanisms, they also teach how to use or improve these attributes of commitment, control, and challenge in various environments and challenging situations.

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They further said that the aim of hardiness training is to teach trainees transformational coping skills. So, primarily, a coping mechanism that can transform you, whereby one can reduce the stress by exploring one's appraisal of them cognitively and emotionally.

So, in stressful situations, appraisal and perception are extremely critical. So that teaches you how to appraise it differently, so that stress becomes less so that they reach broader perspective and deeper understanding and using this information to carry out the decision and solve problems.

Second, and most importantly for hardiness training, is to use the feedback from the coping situation to deepen the perceptions of commitment, control, and challenge, as I have already said. So, since there are specific modules that people use, I won't go into too much detail. However, the basic concept remains the same: these three characteristics can be improved in a coping condition and through training.

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Maddi (1987) showed that hardiness training can increase personality hardiness and decreased subjective (e.g., anxiety and depression) and objective (blood pressure) signs of strain. They found that results persisted over the 6-month follow-up period.

Some later study also indicated that hardiness training is more effective than relaxation/meditation and placebo/social support conditions in increasing self reported hardiness and job satisfaction and decreased strain and illness severity (Maddi, Kahn, & Maddi, 1998).

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And some research shows that hardiness training can increase hardiness and decrease subjective and objective signs of stress, and they found that results actually persisted over a long time, at least for six month follow-up period. Some later studies also indicated that hardiness training is more effective than some other coping strategies such as relaxation, placebo, and support conditions for increasing sense of hardiness. The training was much better in terms of increasing hardiness quality compared to other coping strategies.

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Locus of Control

1. (a) Becoming a success is a matter of hard work; luck has little or nothing to do with it.
(b) Getting a good job depends mainly on being in the right place at the right time.
2. (a) What happens to me is my own doing.
(b) Sometimes I feel that I don't have enough control over the direction my life is taking.
3. (a) Most people don't realize the extent to which their lives are controlled by accidental happenings.
(b) There is no such thing as "luck".

-Sample items from Rotter's (1966) I-E scale

The next personality trait is called locus of control, and it is linked to stressful situations or influences stress reaction. So, before we get into what locus of control is, let's look at a few sample items from another scale developed by Rotter to assess the locus of control. So there you have it, three examples of a pair of items. So, one statement may be more correct for one person, while the other statement may be correct for another.

So, the first pair of the sentence talks about a becoming a success is a matter of hard work, luck has little or nothing to do it. So, one person may believe in it; or b getting a good job depends mainly on being in the right place at the right time. So, this could be another belief among individuals. So some people may believe in first part, and others on b statement.

Second, a; what happens to me is my own doing; b sometimes I feel that I do not have enough control over the direction my life is taking. So, again, these are two different statements for some people, one may be true, for some people other may be true.

Third, most people do not realize the extent to which their lives are controlled by accidental happening; b there is no such thing is luck. So, you can understand these three parts of the statement, one pair is more about inner control, or you have a sense that you can make changes in life, you have more control over things in your life, and the other statement is about you do not have much control over your life, things depend on external circumstances.

So based on this idea, some people are actually more inner-oriented or they find causality inside, causality of actions and outcomes inside themselves and some people are more prone to find causes outside themselves. So this is what is the locus of control is all about.

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Locus of Control (LoC)

Rotter (1966) proposed the concept of locus of control which was found to differentiate people on stress vulnerabilities. He coined the term locus of control (LOC) to describe individuals' generalized beliefs about causality and control

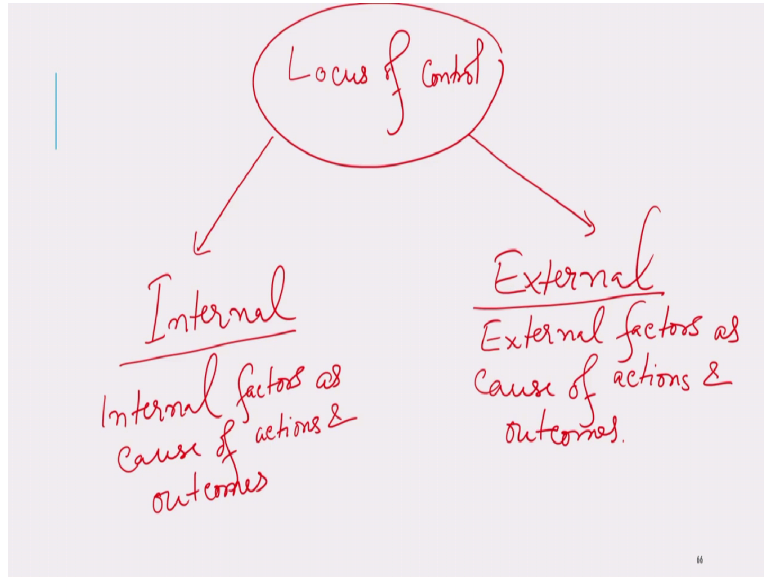
LoC includes our general expectancies about the connections between one's action and its outcomes.

Locus of control refers to the generalized expectancy to perceive outcomes in life as a result of one's own actions and within one's own control (i.e., internal locus of control), as opposed to being determined by external factors, such as chance or powerful others (i.e., external locus of control) (Rotter, 1966)

So, Rotter is one of the main researchers who started research in the area of locus of control, who proposed this term, to differentiate people on stress vulnerabilities. He coined the term locus of control to describe individual's generalized beliefs about causality and control. What is the belief about causes of actions and outcomes? These are generalized beliefs, some people think like that and some people think in some other ways.

So locus of control includes our general expectancies about the connection between one action and outcomes. What is the connection between your action and the outcome that happens in your life? Locus of control refers to the generalized expectancy to perceive outcomes in life as a result of either one's own action and within one's control, which is called as internal locus of control as opposed to being determined by external factors such as chance or powerful others, which is called an external locus of control. So locus of control basically could be of two types.

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So, there can be two types of locus of control. So, depending on the origin of your sense of control, whether your sense of control is coming from within yourselves or your sense of control is outside yourself. So, what is your belief general belief about the causality of your actions and outcomes? If you believe it is within you, then it is an internal locus of control. If you are more likely to believe that the causality lies outside you, then it is called an external locus of control.

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Internal vs external locus of control

Internal locus of control: People with ILoC generally expects that their actions will lead to predictable outcomes and consequences. They tend to make internal attributions by explaining what happens to them as due to their internal or personal factors.

External locus of control: People with ELoC generally expects that outcomes are more influenced by external factors such as luck, chance etc. They tend to make external attributions by explaining what happens to them as due to the external or circumstantial factors.

People with high internal locus of control generally try to master their environment, while those with high external locus of control often perceive that outcomes in life are outside their own control and feel helpless ([Keenan and McBain, 1979](#)).

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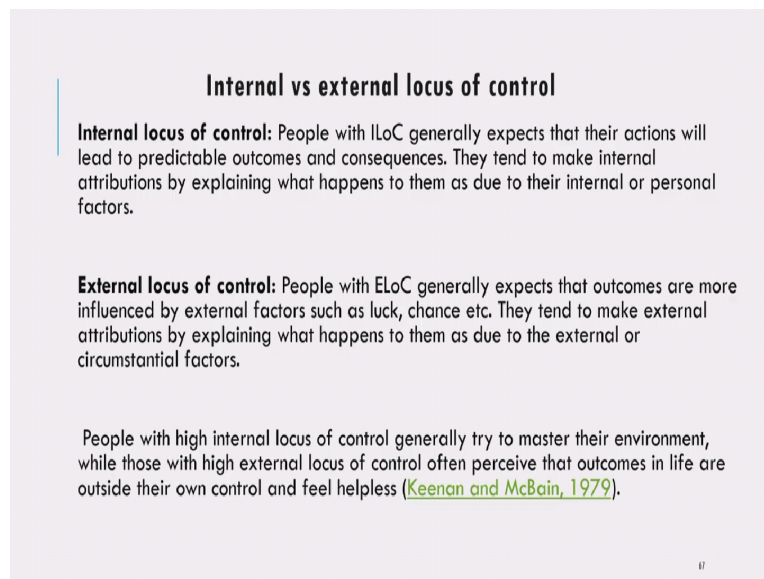
So, some people are more oriented towards the internal locus of control, and some people are more oriented towards the external locus of control. So, people with internal locus of control generally expects that their action will lead to predictable outcomes and consequences. So, they have more internal locus of control. So, they believe their own actions will make differences in the outcomes.

So, they tend to make internal attributions that things are happening because of my internal actions or my actions by explaining what happens to them as due to their internal or personal factors. So, if I say, I succeeded because of my hard work, so hard work is an internal factor or if I say, I failed in a situation because the task was very difficult or situation was not favorable to me, then you are making an external attributions.

So, people with the external locus of control generally expect that outcomes are more influenced by external factors such as luck, chance, et cetera. They tend to make external attributions by explaining what happens to them is due to external or circumstantial factors. So, people with high internal locus of control, generally try to master their environment, while those with high external locus of control often perceived that outcomes in life are outside their control and feel helpless.

So, this psychological makeup or individual differences has an effect on your perception of life and your persistence on a task simply because it will influence your sense of perception and what possibilities are there in your life. So, people with internal locus of control, they will try to make changes and master the environment. Whereas, external locus of control they see because things are outside my control. So, they will not put much effort to change it, they are more likely to feel helpless.

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So, thousands of studies indicate that an internal locus of control is more beneficial as compared to an external locus of control in the context of stress and health. For example, external locus of control is associated with ill health, and internal locus of control was found to act as a buffer against the effect of stress and health.

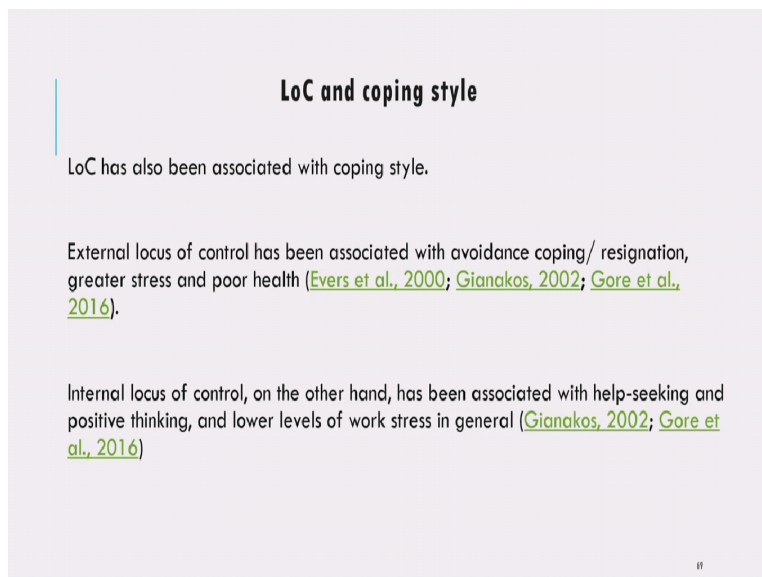
So, people with a high internal locus of control are less likely to experience stress in their life, simply because they are more actively coping with the situation. External locus of control people are mostly using avoidance and running away, which does not solve a lot of problems, and in the end, actually, they experience more stress. So, people with an internal locus of control seem to have a beneficial effect on their sense of perception in terms of health and dealing with a stressful circumstance.

For example, an individual may make an external attribution or external causality by believing that there is no point in joining a course or a professional course, as it is very less likely that he will get a job in the future. So if he believes what is the point of joining a course, if I do not get a job in it? So he may feel I will not be able to get a job in this area. So what is the point of doing or joining a professional course?

So, if a person makes such an external attribution, there is a high chance that he or she may feel more stressed and helpless. Furthermore, job stress is often related to a lack of control over the nature of work. So, many time people who experience more stress in their job situation, external locus of control could be one of the important reasons.

However, it is also important to understand that extremes of either are not good. So, people with too extreme internal locus of control may become a perfectionist, and they want to do everything on themselves, which may not also be good in the long run. So, a decent sense of internal locus of control is more beneficial than an extreme sense of internal locus of control. So, some people may have an extreme sense of either of these two, which may not be very good.

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LoC and coping style

LoC has also been associated with coping style.

External locus of control has been associated with avoidance coping/ resignation, greater stress and poor health ([Evers et al., 2000](#); [Gianakos, 2002](#); [Gore et al., 2016](#)).

Internal locus of control, on the other hand, has been associated with help-seeking and positive thinking, and lower levels of work stress in general ([Gianakos, 2002](#); [Gore et al., 2016](#))

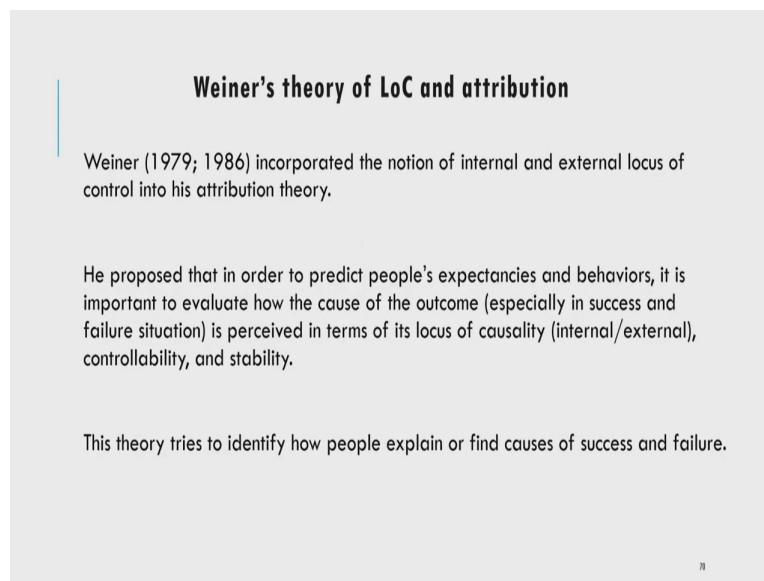
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The coping style has also been linked to the locus of control. So, in the next class, we'll talk more about coping. So, locus of control has been linked to some coping styles, such as avoidance

coping is linked to an external locus of control, where individuals with an external locus of control are more likely to avoid situations resulting in increased stress and poor health.

Internal locus of control, on the other hand, has been linked to seeking help, positive thinking, and a lower degree of job stress in general. As a result, they use more constructive and healthy coping mechanisms to cope with stress.

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Weiner's theory of LoC and attribution

Weiner (1979; 1986) incorporated the notion of internal and external locus of control into his attribution theory.

He proposed that in order to predict people's expectancies and behaviors, it is important to evaluate how the cause of the outcome (especially in success and failure situation) is perceived in terms of its locus of causality (internal/external), controllability, and stability.

This theory tries to identify how people explain or find causes of success and failure.

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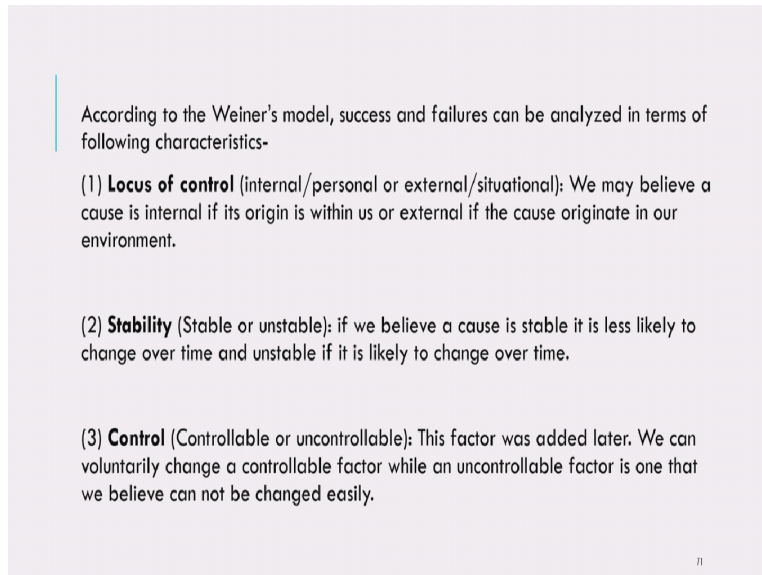
Weiner's locus attribution theory was created to understand how people find causes in an achievement situation or when they succeed or fail in a task, and how they explain their success and failure. What factors have an effect on them? So that was the gist of his theory.

In order to understand how people explain their success and failures, Weiner incorporates the concept of locus of control into his theory. As a result, he suggested that in order to predict people's expectations and behaviors, especially in the context of achievement, it's crucial to consider how the causes of the outcome are viewed in terms of locus of causality, controllability, and stability.

So he said there are three important factors in terms of how people explain their life situation, specifically in the context of success and failure, whether they explain it using internal locus of control or external locus of control, or in terms of stability, whether it is a stable factor or

unstable factor, or controllability, whether it is a controllable factor or uncontrollable factor. So, look at what these three variables are a little bit more.

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According to the Weiner's model, success and failures can be analyzed in terms of following characteristics-

- (1) **Locus of control** (internal/personal or external/situational): We may believe a cause is internal if its origin is within us or external if the cause originate in our environment.
- (2) **Stability** (Stable or unstable): if we believe a cause is stable it is less likely to change over time and unstable if it is likely to change over time.
- (3) **Control** (Controllable or uncontrollable): This factor was added later. We can voluntarily change a controllable factor while an uncontrollable factor is one that we believe can not be changed easily.

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As a result, performance and failure, according to Weiner, can be evaluated in terms of these variables. So, we've already discussed the locus of control. We may assume that a cause is internal locus of control if its origin is within us; or it is because of external locus of control if the cause originated in our environment or circumstances or outside ourselves. Hard work, for example, is an internal factor. Luck, on the other hand, or the characteristics of the situation in which we are performing the task, is an external factor.

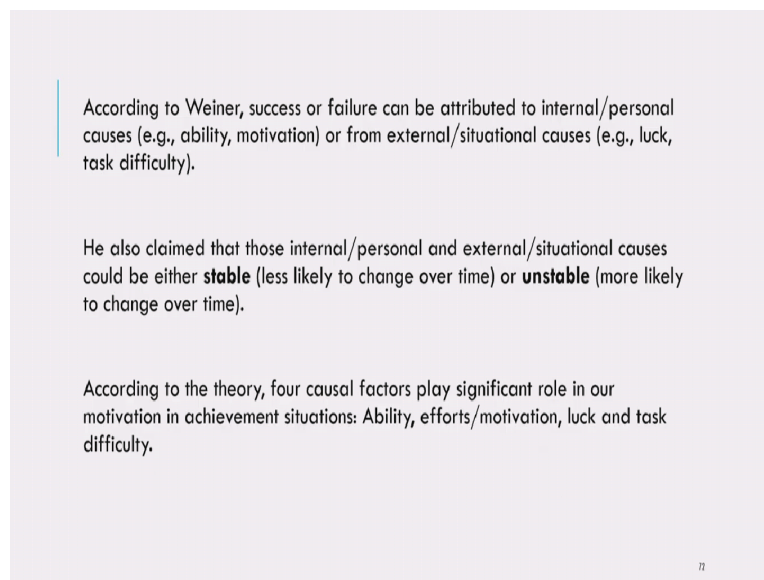
The second factor is stability. As a result, the stability of internal and external factors will differ. It is less likely that a cause will change over time if you assume it is stable. As a result, stable factors do not change frequently, while unstable factors change frequently. Hard work, for example, is an unstable factor since we can alter our level of effort. I have the ability to work very hard or very lightly. As a result, it's an unstable factor.

My ability and intelligence are examples of stable factors; you cannot alter your ability and intelligence in days, weeks, or months; these are more stable attributes that are affected by genetics, environment, and a variety of other factors. So, factors can be stable, unstable, or

controllable. A controllable factor is one that that we can believe or willingly modify, while an uncontrollable factor is one that we believe cannot be changed easily.

So, it's kind of linked to stability variables, but it can also vary depending on the situation. So, in that sense, let us conclude that effort and motivation are largely controllable variables, whereas ability and intelligence are uncontrollable. As a result, these three sets of factors have an impact on how we explain life events, especially in the context of success and failure.

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According to Weiner, success or failure can be attributed to internal/personal causes (e.g., ability, motivation) or from external/situational causes (e.g., luck, task difficulty).

He also claimed that those internal/personal and external/situational causes could be either **stable** (less likely to change over time) or **unstable** (more likely to change over time).

According to the theory, four causal factors play significant role in our motivation in achievement situations: Ability, efforts/motivation, luck and task difficulty.

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So, according to Weiner, success or failure can be attributed to internal personal causes or external situational causes, and these internal - external factors could be either stable or unstable, and they focused on four important factors that play a significant role in our achievement situation in terms of finding causes. These are ability, efforts or motivation, luck, and task difficulty. So, I will just show you how these factors interact with each other.

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Locus of Control -

		Internal	External
Stability	Stable	Ability	Task difficulty
	Unstable	Efforts, Hardwork, Motives	Luck

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So, if you use this locus of control and stability, so these could be the four important factors. So, a stable internal factor is ability; internal unstable is effort, hard work or motivation. So, the stable external factor is like task difficulty. It is external and stable in the sense you do not have much control over it. Then in the category of an unstable external factor, one factor that influences our decision is luck, which basically means you do not know whether you will become lucky or unlucky; it is very unstable, sometimes you feel lucky, sometimes you feel unlucky. So, luck is an unstable factor. So, these four characteristics or factors play an important role in explaining our successes and failures or achievement situations in our lives.

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Stability attributions influence our expectancy or predictions about the future

Controllability influences our persistence on a task

Locus of control influences our emotional reactions

For example a student fail in an exam and he attributes the cause of failure to

(1) Lack of ability (internal, stable, uncontrollable factor)

Low expectancy of future success, low self-esteem/humiliation/shame, leaving or quitting the setting

(2) Lack of efforts (internal, unstable and controllable factor)

Hopeful and positive anticipation, motivate to amend past

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So, stability attributions, whether a factor is stable or unstable, it will influence our expectancy or prediction about the future. So, if you think a stable factor caused my success and failure, it is likely to influence your prediction about future. So, if it is a stable factor (such as ability) you are not likely to give much effort in future, or in terms of expectations of what will happen in future.

However, it is if it is unstable, you are likely to have different expectations or at least you will have an expectation that things could change in the future. Controllability influences persistence on tasks. So if you believe a factor is controllable, you will put more effort in it; if you believe it is uncontrollable, you will likely run away or avoid it.

Locus of control influences our emotional reactions. So, whether you are explaining internal locus of control or an external locus of control, there may be a diverse emotional reaction, positive, negative, etcetera. Or so let us give you an example, how it can influence let us say a student fail in an exam and there are two cases, in one case the student is attributing his failure to lack of ability. So a student fail in an exam and he sees or at least explains himself, that he failed because of his lack of ability. What will happen to his expectations and future outcome? What are the possibilities? So lack of ability is an internal stable, uncontrollable factor. So, it will lead to low expectancy of future success because he thinks that he lacks ability and future hard work may not change his situation. It would likely to decrease his self esteem, he may feel humiliation, shame or leave or quit the situation. Simply because he feels there is no point in it, because I am

not able to do it, or I do not have the ability to perform. So, his expectancy for the future will be very less, it will decrease his motivation, and probably he will leave or quit the situation.

However, on the other hand, let us say the student attributes the cause of his failure to lack of effort, which is an internal, unstable, and controllable factor. Such attributions will lead to more hopeful and positive anticipation because it may lead to thinking that he can change the future because he can change his effort and may motivate him to amend what he has done wrong in the past.

So you can see, based on what kind of attribution a person does, outcomes can be very different. So, people use all these explanations in their day to day life and this may influence them. Some people intentionally use certain attributions. For example, in the case of success, people may interpret their environment in such a way to maintain their self-esteem or positive self-image; one may attribute their success to internal factors and failure to external factors.

So, such kind of attribution also protects you that I succeeded because of my ability, my effort, and when you fail, you may say I failed because of the situation was not good, people were not good, et cetera, et cetera. So, sometimes we intentionally or unintentionally do such attributions also to protect our self-image. So these are some of the factors that can influence our stress reaction in a certain situation. So personality may also play an important role. So with this, I end today's lecture. Thank you.