

Emotional Intelligence

Peter SALOVEY*

I am going to talk about emotional intelligence, which might be a new idea in the field of knowledge management, but I believe that when we are talking about transferring knowledge from person to person in organizational settings, in societal settings, that emotions are a misunderstood concept and one that plays a bigger and more important role than has historically been attributed to them. I think it does fit with the idea of Japanese Chi. You will recognize the relationship between emotional intelligence and knowledge management. Perhaps, the talk today will provide a new perspective where at least an additional perspective on the on the remarks made so far this morning and this afternoon.

Let me start with a story that I think illustrates the idea of emotional intelligence. It has to do with a time I met President Clinton. President Clinton came to Yale University, my university to give a speech. As you can see on the slide, he is looking at me warmly. He is making me feel comfortable. He is looking in my eye. He is giving a warm handshake. He is trying to make me feel that I am the important person in the room rather than he is the important person in the room. He recognizes that I am kind of anxious. I am feeling dokidoki. He knows that he needs to make me feel better. He, in fact, is very good at managing the emotions of other people. He is the president whose favorite expression was "I feel your pain", sort of showing empathy for people he interacted with. That is my wife in the middle in the black dress. He is also trying to make sure that she feels included in the conversation. You can see that he has his arm around her shoulder. But this also brings up another point about Bill Clinton. That is, although he has many emotional skills, he also has some deficits. His impulse control problems are what have occasionally gotten him into trouble. The illustration here is that someone may have some skills in this area, they can also have deficits at the same time. Unlike IQ, EQ, emotional intelligence is not a monolithic construct. It is not just one thing. Rather, it is a set of skills that people might have in abundance on some dimensions and lack on other dimensions.

The idea of emotional intelligence represents a historical trend in my field. I am a psychologist. While serving as a Dean of Yale Collage, I am also a professor in the psychology department. In psychology over the last 50 years at least in North America, there has been a shift in what we mean by or how we view emotion, and a shift in what we mean by

* Dr. Dean of Yale Collage, Chris Argyris Professor of Psychology, Professor of Management, Yale University

intelligence. Such that a old view of emotion is giving away to a newer one.

The old view, the traditional view of emotion is that is passion (emotion) and reason (thinking) are on opposite ends of the spectrum. They are antithetical. When one is feeling emotional, one's thinking is in chaos. One's thinking is haphazard. One's thinking is immature. This is an idea of Daycart and many others.

You can see this idea in all kinds of philosophical statements like this one. "Rule your feelings, or your feelings will rule you. If you took a class in psychology in North America in 1940's or 1950's, the way in which emotion would have been defined in your psychology textbook would be this way. "Emotions are a disorganized response, note the word disorganized.

Or, "Emotions are acute disturbances. . ." or, my favorite, "Emotions cause a complete loss of cerebral control and contain no trace of conscious purpose". If this really were emotion, what emotions are all about, one would try to stamp out emotions. One would try never to have an emotional experience. Why have a complete loss of cerebral control?

The new view of emotions says no, emotions are adaptive. That is, that they help us. They are functional. They organize our thinking. They help us know what to pay attention to, and they motivate behavior.

This idea was suggested in the 1940's but rejected at the time by Robert Leeper when he argued that we have emotions to because they arouse us, pay attention to something. They sustain our attention, and they motivate or direct our behavior.

This change from the old view of emotion as haphazard and chaotic to the new view of emotions as functional and adaptive and helpful in some ways has come about because psychology and other social sciences have rediscovered Charles Darwin. Darwin would have argued in his book the expression of emotion in men and animals that our emotional system is an intelligent system. He would not have used the word or phrase, intelligent system, but that is what he described when he argued that our emotional system we have evolved it, because it helps us survive by energizing behaviors required for survival. That is making it easier to run away when we are afraid. It is easier to run away from the predator. When we are angry, it is easier to fight someone that is blocking our goal. When we are happy, it is easier to cooperate. Also our emotions signal information to other members of our species.

So if an animal bares its teeth, shows its teeth, when angry, it signals an intention that I am angry and I am going to bite you, and the other animal can change its behavior and this helps both animals survive. Smiling of joy is supposed to signal that it is safe to approach me. The frown of sorrow or tears of sorrow means that I need to be taken care of. The wide eyes of fear show that I need to run away, or actually, we all need to run away. Darwin argued that this is an intelligent system. This is providing information. This is communicating knowledge.

We have evolved this system, because it helps us survive. Unfortunately, this view of emotions largely has been ignored until quite recently. One of the reasons why this new view is becoming popular is because evidence from the study of the brain from the imaging of an active

brain suggests that our emotional system and our cognitive system, the parts of the brain dealing with feelings and the parts of the brain dealing with thinking, are actually in close contact with each other, constantly communicating. Interestingly, when there is damage to the parts of the brain having to do with emotions people make poor decisions. Their judgment is impaired. Their cognitive activities are weaker. So the idea that emotions and cognition, the feeling and thinking, are opposites is very much contradicted by evidence of the brain, for example described by Damasio in his book. Descartes' Error is now getting a little outdated in terms of brain imaging work that is reported in it, but it is still a good description of this idea

At the same time that our view of emotions is changing, our view of intelligence is changing. A *Chi*, which we talked about this morning, is the traditional view of intelligence. That is a kind of general analytic ability. This is what is measured by an IQ test. Many psychologists have suggested that we need a broader definition of what it means to be a smart human being. Bob Sternberg is my colleague at Yale. He argues that not only do we have to consider analytic abilities, but we also have to consider creativity and practical intelligence. Practical intelligence is what in a slang term might be called "street smarts". Your ability to make sense of the world, not just book smarts.

Howard Gardner is a psychologist at Harvard who also argues that maybe there are seven or eight or ten or eleven kinds of intelligence. He even says one of them might have to do with emotions. He calls it intra-personal intelligence, and he argues that this is intelligence about one's emotional system. This is an intelligence that allows you to discriminate among your emotions, to label them, to draw upon them, to use them as means of understanding the world around you and as a way of guiding your behavior.

My collaborator, Jack Mayer who is a professor at the University of New Hampshire, and I took these ideas about emotion that is changing view of emotion and this changing view of intelligence and suggested in 1990 that maybe there is an emotional intelligence. Maybe the idea of emotional Intelligence is not a paradox, but rather, a sensible idea. In an early paper we published, we defined it as the ability to monitor your own and other people's feelings, to discriminate among them that is to tell the difference among them, and to use this information to guide thinking, and guide behavior

Over the past seven or eight years in my laboratory at Yale, we did many many experiment showing that when we induce emotions in the lab, there are cognitive activities like inductive and deductive reasoning that people can do better in certain emotional states. For example, inductive reasoning and creativity is enhanced by positive emotional states, but deductive reasoning is actually enhanced by more negative emotional states. There is a Darwinian explanation that I could provide for that, but I won't do it because it would take too long.

In 1997, we rearticulated our definition, and I think I will go right from the definition to the four major points in it. Emotional intelligence involves perceiving and expressing emotion accurately. That is, understanding my emotions and understanding your emotions.

For example in the face expression, using emotion to facilitate thinking that is harnessing your emotions to think in a more rational way, understanding emotions in language, and managing emotions, that is changing my own emotions or your emotions when that is adaptive. So right now, if I was feeling angry, I probably would not give a very good lecture, so I would want to engage in some kind of strategy to manage that emotion in order to be able to present to you today.

Now we looked around the world around us to try to find examples of using these four skills. So perceiving emotion might be not just the ability to see emotions in yourself and other people, but also to understand the emotions in objects of art, in a story, in music. That using emotion to facilitate thinking might involve actually creating certain kind of emotion in oneself in order to be a more creative person or to solve certain kinds of problems. Understanding emotions in language involves understanding the transitions between the emotions, how irritation can turn into anger can turn into rage. And as well how emotions might blend together to create yet other feelings. And finally, managing emotions as I said involves being open to changing one's own feelings or other people's feelings when it is adaptive and when it helps one grow.

Now if one is going to take the idea of an emotional intelligence seriously, we need to find a way to measure it in people and then look at whether these measures of emotional intelligence predict anything important in the world. Today I am just going to focus on what they predict in a work place setting, but we can also look in school, families, in friendships. I will mostly talk about work place. Our test called "the Mosquite" in Japanese Mosquito, is Mayor, Salovey, Kruso, Emotional Intelligence Test. The three names an emotional intelligence test. We had an earlier version called the "MIS" which we also sometimes see. It is organized around four sets of skills - perceiving, using, understanding, and managing, and each skill is measured in two different ways like faces or pictures. Let me give you an example. For perceiving emotion, we might show you a picture of a person like this and say, "What is the emotion she rs experiencing right now?" I think she looks a little happy, but she is not very happy. Her eyes do not look happy even though her mouth looks happy. Maybe she is also feeling a little bit anxious, a little bit worried, I do not know. We could show you a picture and say, "What emotions was the artist here trying to express in painting this picture?" Maybe this is calm, but also the calm before the storm. That is, there is something on the horizon that does not look quite right. For using emotion, we might ask you questions that ask you to use to take emotional language and describe those emotions using the language of other senses. Here, we are describing a feeling having to do with being surprised when you are given a gift that you did not expect to get, and asking you to use the language of colors and temperature and taste to describe these feelings. We might ask you direct questions about what emotions might be helpful when trying to solve a problem. These are based on our research. As I said earlier, more negative emotions help with deductive reasoning, and that would be a correct answer to this question.

For understanding emotions, we might ask you about language. I do not know how well

this will translate, but if we describe a feeling like contempt, we would then ask what emotions does this also involve? Surprise, anger, fear, maybe disgust and anger is a good answer. We might describe a progression of emotions. Tom felt anxious, and he became stressed when he thought about all the work he needed to do when a supervisor brought him an additional project. Now how does he feel ? Perhaps overwhelmed is a good answer to this question.

Finally for the forth set of skills, managing emotions, we might present scenarios. I apologize this is difficult to see, but you have the slide in your notebook. We will give a story like person named Debbie who comes back from her vacation feeling peaceful and happy, content. How well would each of these actions preserve this happy mood? Would she still feel happy if she started to make a list of things she needed to do? Would she still feel happy if she began thinking about where to go on her vacation? Would she still feel happy if she ignored the feeling? Would she still feel happy if she called her friend to discuss the vacation? We can also give scenarios about other people. These are two people who work together, Ken and Andy. They have worked together for ten years, but Andy was just promoted and is now the manager of Ken. Now they have a problem. Ken feels that Andy is bossing him around, but Ken would like to maintain the relationship. What might he do to manage these feelings? Could he try to understand Andy's new role? Should he confront Andy and challenge him? What should he do? Now, one might ask, at this point, how do we decide what the correct answer to these questions would be? We could do this in a couple to different ways. One is we have given the Mosquite to 5000 people all over the world. We can look at how a person's answers match on mach with the 5000 people who have taken the test How in tune are your emotional responses with others? That approach might bother some people who feel that that just sounds like conformity, that you are like everyone else, so we can try another approach. We have emotion experts. These are members of a research society called the International Society for Research on Emotion. These are people who have studies emotions professionally all of their lives. We ask them to answer to provide the correct answers, and then we map your answers onto the experts' answers. We can give you a score either way.

I do not know if this is a group that likes statistics, so I will not talk about them too much. Other than to say the test is a reliable test. These are a split half correlation. If we take half the test and give it to you and then we take the other half and give it to you, your score on one half of the test is highly associated with your score on the other half of the test. These correlations can range from zero, which is no associations, to 1 which is perfectly associated, or -1 which is perfectly associated in the opposite direction. I think you can see that the scores range from 0.9, 0.8, and 0.7. This is very high agreement. Also if you take the test one time and take it again a month later, your scores will show a high level of agreement, about 0.86.

What is related to high scores on these tests? People who score high on emotional intelligence report that their relationship with their parents, psychologists call this the attachment relationship, was secure, was a mature, and appropriate kind of relationship.

They are the kinds of people who display more photographs of their family members in their office and in their home. They are more likely to work as care takers, but they are less likely, note the negative correlations, to use drugs. They are less likely to get into fights. They are less likely to vandalize.

This is a study. This is a complicated slide, but this reports a study where we asked a 106 college students in Germany to keep track of every social interaction they had for two weeks. Every time they interacted with another human being, they had to fill out a little card describing the quality of that interaction. You can imagine how many cards they created. In fact there were 4552 cards. Then we looked at their emotional intelligence measured with the Mosquite and found that people were good at managing their emotions. Our fourth branch, reported higher quality interactions particularly with members of the opposite sex, with women if they were men, with men if they were women.

This slide, columns moved around a little bit, but what I am showing here is that in Yale college students, their scores on the emotional intelligence, that is their Mosquite scores can tell us who over the course of the next year will report having a problem with depression or anxiety. You see, that the scores on the Mosquite are negatively correlated, negatively associated with depression and anxiety, but positively associated with their satisfaction with college

The SAT is an examination that students need to take before going to college. They take it in high school. Even if we know their IQ, we can still predict how well they will do on the test over and above IQ with some of the tasks on our emotional intelligence test. This is a regression model. I think what we are picking up here is that the people who do better than their IQ says they should do or who do worse on their college entrance examination than their IQ says they should do because these are the people who can manage the emotions of a testing situation. These are the kind of people who can manage their own feelings in order to study for the test. Again in adolescence, we had 207 teenagers keep a diary for a month of how many times they smoked cigarettes, how many times they use alcohol. We found that the ones who scored lowest on the emotional intelligence test were more than twice as likely to use alcohol or tobacco as the ones who scored high.

Those were all studies about students in school. What does this have to do with world of work? What we find that in a work place, emotional intelligence is also associated with positive outcome.

This is a study done by a woman named Sheryl Rice. She is a psychologist. She studied 160 claims adjusters in an insurance company. These are people who settle with customers when there is damage to a house or automobile. They decide how much the customer is going to be paid for that damage. What she found is that the emotional intelligence of the claims adjuster was correlated with customer satisfaction. The higher the emotional intelligence of the claims adjuster, the more likely that the customer was to be satisfied with the interaction and with the settlement. These people were not more productive. They took just as long to settle these claims, but the customer was more satisfied.

Another study involved asking people in a work place to work together to solve a problem. This is a group problem solving task that took 10 weeks of weekly interaction in a meeting. We measured the emotional intelligence of every person in each of these groups. And we looked at who at the end of the 10 weeks was rated by the other members of the group as having more strategic vision, being a more satisfactory communicator, as interacting more in a more satisfying way with their peers in the group, at providing more social support, and it was the people with higher scores on the Mosquite. We measure emotional intelligence, controlling for standard measures for personality, that is already taking into account standard measures of personality and intelligence.

We just finished a study in a Fortune 400 health insurance company in the state of Connecticut in the United States. This is a study of 44 people working in a finance division of this company. In this study, we had hard outcome data. We could measure their emotional intelligence at the beginning of the year, and then look at their salary at the end of the year and their supervisor's recommendations about their salary at the end of the year. We also had measures of their peers and supervisors ratings of them on important aspect of work. So here, you see those ratings. The first column is the correlation between the person's emotional intelligence and the ratings of their peers in the work place on these dimensions. The second column is the ratings of their supervisors on these dimensions. What you see here is that the people who score high on emotional intelligence are rated as more sensitive, as more sociable that is more friendly, as generally having more positive interactions, as helping to create a positive work environment, as being more tolerant of stress, of generally being in a better mood, and as showing more leadership potential. Correlations of point 5 in this kind of work are actually quite high. Generally in psychological work, correlation of point 3 is considered as something to take note of. In this workplace study, as I said, we can also look at the salary increases recommended for these workers. You can see that their scores on the Mosquite overall as well as their branch scores, the four parts of emotional intelligence, generally correlate positively with salary increases. The people with are most emotionally intelligent, one year later, are receiving the biggest raises. They are also rising to higher rank in the company, and their overall salary tends to be higher. It looks like managing emotion is the most important part of emotional intelligence from a salary point of view. So we can predict by giving our emotional intelligence test at time one a year later which workers are going to be recommended for salary increases by their bosses.

Now why have you probably heard about this idea of emotional intelligence? 10 years ago, a book published by a psychologist who is also a journalist, Danielle Goldman, was a bestseller all over the world. This is the best selling book in popular psychology in the United States ever. It was translated into 30 languages and sold all over the world. The book makes some claims that are probably too strong such as that emotional intelligence matters more than IQ. We do not know if that is true. It probably is not true. It does matter. It matters in ways that I think people found quite interesting, because in the workplace everybody is of fairly high IQ.

IQ is not going to predict what makes for success in your workplace, something else has to, and it looks like emotional intelligence. Danielle Goldman was very nice to us. He talks about our research in his book. He talks about many other things such as brain research, work, and schools. It is a very interesting book. It is available in Japanese. After the book came out, there was much media coverage of the idea of emotional intelligence including media coverage in Japan. This came out in 2000. It describes the high IQ or the highly emotional intelligent sales person. This kind of media coverage occurred in Germany, Spain, France, and United Kingdom, really all over Europe and, to some extent, all over Asia. What has happened in the aftermath of this media coverage is much interest in emotional intelligence in many different areas : in human resources development, in understanding politics. Why do some political candidates connect with voters even when their political positions on issues are not in the interest of those voters? I won't say who I am thinking about when I say this sentence. Also in marketing, the idea of connecting to customers through emotions, emotional branding that is to make an association between the brand and emotion. We have heard about Honda motorcycles earlier today. In the US, another popular brand of motorcycle is Harley Davidson. Harley Davidson tries to connect around emotions having to do with rebellion, almost a little anger. You can treat society with contempt if you own a Harley Davidson motorcycle. Other areas include the personal growth area, therapy, worker education, and educational curricula in our schools. More and more there are examples of students learning about their emotions as part of their educational program. I will mention a couple of these today. Here in Tokyo, probably the best known approach to emotional intelligence in organizations is taken by EQ Japan who measures emotional intelligence and then uses it to help place people in careers, in career counseling, in out placement counseling, in career development and leadership training.

The next 10 years, I believe, are going to be a very important and interesting one for seeing where this emotional intelligence idea can go. I am very pleased that people who are interested in knowledge management are beginning to make connections with these ideas of emotional intelligence, that there may be a way in which the kind of networking, communication, at the individual level, at the interpersonal level, social networking, at the organizational level, organizational communications, and as we heard this morning, even at the societal level, in the design of architectural spaces, and even cities might take an emotional component into account. The idea being that we need to encourage emotional states that actually lend themselves to effective communication to building social bonds, to developing bonds, not just social bonds between people but between people and societies, between people and organizations. But there are still many questions to ask. We have been doing research, as I mentioned, since 1990, but we still have more questions than answers. We do not yet know which parts of emotional intelligence are most important. It does seem that the managing component seems especially important. We think that maybe the most important one.

There are going to be many times when emotion will help people reason more rationally, but that will not happen all the time. Even though I am a supporter of emotion, I know there

are times when people can be so overwhelmed by fear or anger that they are not going to be rational. That can happen. We need to know where the threshold is, how much emotion helps reason, how much emotion gets in the way of reason.

A question that might be interesting to you because this is an international group is the issue of emotion and culture. The emotional style of North Americans is somewhat different from emotional style of Japanese. Do people see those differences? Is part of emotional intelligence being aware of these differences? I have a minute or two so I will give you a few examples. The stereotype of Americans is that they smile a lot. Americans walking down the street in Europe, the Europeans look at them and say, "He must be an American. He is smiling at nothing". Eastern Europeans smile less. Americans like to smile at their own individual accomplishments. They individually are happy today. That is why they are smiling. In Japan, that seems a little individually focused and you will see people hiding their smiling a little more. For example, this gesture, when you smile and then cover it up with a hand and look away. You will never see an American make that gesture, but you will see Japanese make that gesture. It is a little big embarrassing to smile about an individual accomplishment, maybe okay about one's country or one's family, or one's company, but it is a little embarrassing to be so self-focused. Another good example is to look at a way in which people behave emotionally at funerals. In the United States where I live, the original immigrants to that part of the United States are from the United Kingdom, generally from England, and they at funerals do not show much emotion at all. They look respectful, but they do not cry very much. On the other hand, later waves of immigration from Southern Europe (Italy, Greece) and Eastern Europe (Poland, Hungary, Russia) which is where my family came from when my grandparents came to New York much more likely to cry at a funeral, hug each other at a funeral, look openly distressed at a funeral, and then eat more after the funeral. I was once at a funeral in New Orleans, Louisiana of an African American family. They were dancing and celebrating in a very happy way at the funeral because they believe that it is important to celebrate the person's life and the fact that he/she is going onto something even better. Different cultures have different display rules when it comes to showing emotion, and I believe that emotional intelligence involves understanding these cultural differences. I think they are quite interesting. I think as our workforces become international and as companies become global, the miscommunications in the work place at the end of the day are going to be likely the ones that involve emotional misunderstandings rather than cognitive misunderstandings. If you saw the movie, I am sure many of you did, called "Lost in Translation", the character played by Bill Murray, he has many personal problems, but he also fundamentally does not understand Japanese emotional culture. He thinks that too many people are worrying about him ; he thinks people are invading his personal space, and really it is just Japanese hospitality, but he does not understand it. That is emotional problems across cultures. We believe that emotional intelligence can be learned. It is not just a genetically based skill. Because it can be learned, we are going to see more and more interventions in workplace settings and in schools design to help build emotional intelligence and these skills as part of what it means to develop human capital.

References

If you are interested in the ideas I mentioned, I do recommend to you the website:

www.unh.edu/emotional.intelligence.

At that website, we have put many of our papers that you can download copies of and have information about the test if you are interested. Also, we have some books' available that you might find interesting. The one I will mention is the last one, because just two weeks ago, the Japanese version was published and it is now available in Japanese here in Japan.