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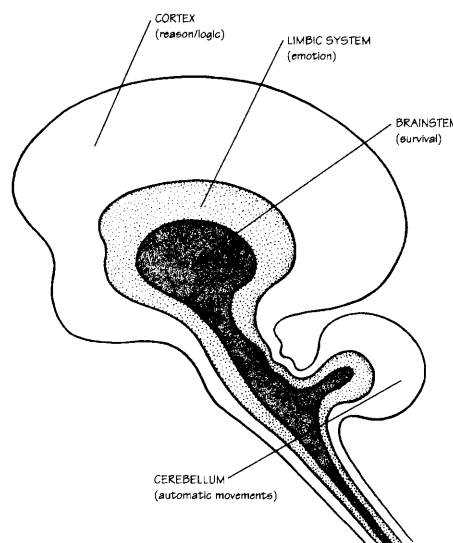


Emotions, Values, Good Thinking

Agnes Chang Shook Cheong & Ang Wai Hoong

To most laymen, emotions and thinking seem to be at the opposite ends of a continuum. Behaviors, especially negative or impulsive behaviors are perceived to be emotion-driven. At the same time, good thinking is usually associated with cleverness and intelligence. Indeed, good ideas and great deeds are originated from brilliant minds. However, a review of ancient as well as contemporary history would provide a plethora of cases on poor decisions or heinous deeds associated with illustrious people. Similarly, police files would also yield rich evidence of tragedies created by people with high intelligence. The question is: Does good thinking get undermined by strong emotions?

MacLean's Fig. 1
MacClean's Triune Brain Model



Neurobiologists and neuropsychologists could easily answer the question from the findings of brain research. From Paul MacClean's Triune Brain Model (1978), it is easy to locate the various brain structures of importance and their functions: the cerebellum (automatic movements), brain stem (survival), limbic system (emotion) and cortex (reason, logic). (Fig. 1) Cognitive scientists currently are in favour of a modular brain organization that increases the importance of the limbic system.

Our emotional system is a complex and error-prone system that defines our basic personality early in life and unfortunately, resistant to change (Sylwester, 1998). It has

also been found that there are more neural fibres projecting from the brain's emotional center into the logical/rational center than the reverse. This indicates that emotion is often a more powerful determinant of our behaviors than our brain's logical/rational process.

Two interrelated brain's systems share the regulation of our emotions:

1. The brain stem and the limbic structure around it focus inward on our survival, emotional and nurturing needs. The limbic system is our brain's main regulator of emotion and plays an important role in the selection and classification of procedural and declarative knowledge for storage in the long-term memory.
2. The cerebral cortex regulates the higher functions and addresses our interaction with the external world (Edelman, 1992). It responds very rapidly (in milliseconds to seconds to various space-time demands. The system (i) receives, categorizes and interprets sensory information; (ii) makes rational decisions and (iii) activates behavioral responses.

Factors that Impact our Thinking

From the hard evidence of scientific brain research, we realize that emotions indeed are strong determinants of our behaviors and often override our reason and logic. Before we can learn to override our survival and emotional impulses, we need to confront our own personal barriers in order to come on top.

Enculturation

Our racial traditions, religious beliefs and values are deeply instilled in us by our culture and parents at a very young age. These define the basis of our attitudes, and values which may be in conflict with the critical thinking and decision-making demanded of us in resolving a problem. There are religions which forbid operations and blood transfusions and the believers are left to die even though a simple operation could have saved their lives. Superstition has also been the cause of tragedies and scams. The importance of a male heir for many Asian races has led to infanticides, illegal abortions and abandoning of female babies. The comical irony is that this has also resulted in a lack of suitable brides for the males when they grow up because of male gender preference.

Superstitious Chinese parents are unhappy if their daughters are born in the Year of the Tiger as it would be difficult to marry them off. An open mind is indeed crucial for critical and creative thinking to take place.

Self-concept and Self Worth

A person with a positive self-concept tends to be confident and secure and is more likely to make unbiased and fair decisions. It is important for us to think of ourselves



as a worthy person. We are also more likely to use self-defense mechanisms, self-serving biases and other distortions to ensure that we appear good and worthy, at least to ourselves.

Ego Defenses

Ego defenses are psychological coping strategies that distort reality in order to protect ourselves from guilt, fear, pain or other negative feelings about ourselves. Common ego defenses are Denial, Projection and Rationalization.

Denial

Refusal to accept an unpleasant reality is denial. This is commonly seen in cases of parents denying the bad behavior of their children in school, or a wife denying the husband is having an affair, despite solid evidence. Denial inhibits our ability to think objectively of the situation.

Projection

Projection is the defensive mechanism whereby we see in others a negative part of ourselves which we cannot accept and often do not realize or recognize. We often accuse others of behaviors which are mirrored in ourselves such as deceit, laziness and incompetence. Sad to say, projection relieves a person of guilt but interferes with his ability to think critically about self and others. That is why an insecure and incompetent boss is more likely to be a suspicious, unfair and harsh leader.

Rationalization

Rationalization is distorted thinking that attempts to justify behavior motivated by self-interest. Rationalization is lying to ourselves about the real reason for certain behaviors and decisions. Indeed, the easiest person to deceive is ourselves.

Self-serving Biases

Biases in our thinking to protect us from threats to our self-concept are called "self-serving biases". According to Maslow (1954), most people tend to see what they want to see in order to maintain their strength and positive feeling about themselves. The self-serving bias is the tendency to take credit for our success and to blame our failures on external factors (Zuckerman, 1979, Bradley, 1978).

Expectation

We tend to think about the world according to what we want to see and what we need to see. We also tend to think of the world in terms of what we expect to see. Hence, we tend to perceive and think about others and situations in terms of the





ideas we have already formed about them. Often, we will distort the truth to make it fit into an existing scheme. This is how prejudice can mislead our thinking and decision-making.

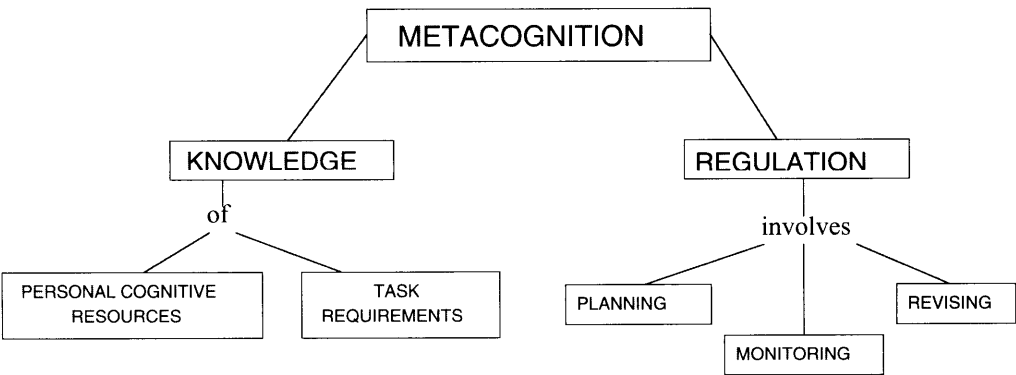
Emotional Influences

Anger, passion, depression, hatred and greed are some negative emotions which have been cited as the sources of poor judgements and crises. But positive emotions such as love and joy have also been known to lead to erroneous decisions being made. The indulgent mother's love for the child can lead to poor eating habits and obesity. Love for his wife has also led a man to commit mercy-killing. In the euphoria of celebration, young people are known to drink and drive recklessly, leading to a car crash and death. So, it is necessary to exercise discreet and critical thinking even when a decision originates from a positive emotion.

Emotions and Metacognition

One way to override the influences of emotions over logic and reason is to practise metacognitive processing or reflective thinking. In most definitions on metacognition, they refer to an awareness of the mental process and strategies required for the performance of any cognitive endeavor. This knowledge is manifested in the form of strategic control of the processes necessary for performance. Hence there are two parts to metacognition, knowledge and regulation (Schmitt and Newby, 1986). But knowledge here is strictly limited to knowledge of personal cognitive resources and task requirements. There is no reference to knowledge or awareness of personal emotions.

Fig. 2
The Components of Metacognition



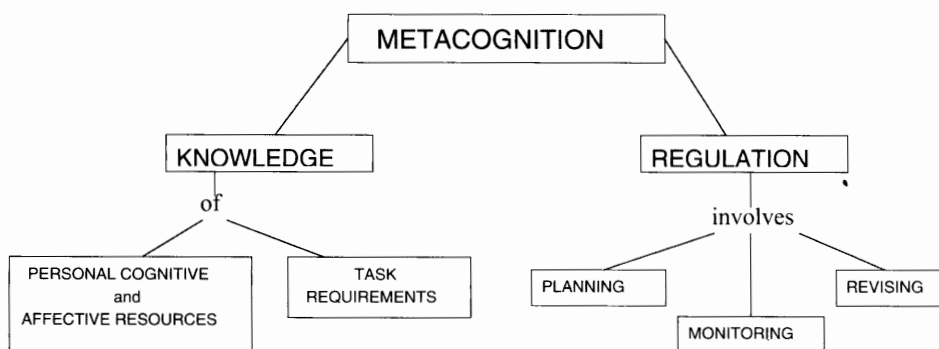
(Schmitt and Newby, 1986)



The knowledge that emotions can undermine reason and logic would cause one to pause to think about the role of emotions in this important component of thinking-metacognition. Awareness of one's own personal cognitive resources alone will not be sufficient to motivate one to plan the best strategies to solve a problem. For a bright but insecure manager, he is aware of the man he needs as his assistant and how to go about choosing the assistant manager. But his insecurity may distort his decision-making at the interview to dismiss a better candidate in favour of a weaker candidate.

When a person's mind is crowded with highly emotional conflicts, he is in no position to do critical thinking. Hence, it is important to introduce the sub-component of awareness of personal emotions as part of knowledge.

Fig. 3
New concept of Metacognition



(Chang and Ang, 1999)

Character Traits that support High Level Thinking

According to Shari Tishman (1990) there are character traits that support critical thinking-traits, like perseverance, commitment, honesty, integrity and empathy. Though critical thinking is often associated with impartiality, empathy and integrity are very critical traits to ensure that consideration is given to context. Cold impartiality can prevent us from perceiving the important human perspectives that shape many of the intellectual and moral issues we face. Hence, we must consider different options in decision-making and always consider consequences of taking a particular option. This provides opportunity for developing empathy in the participants in a decision-making exercise.

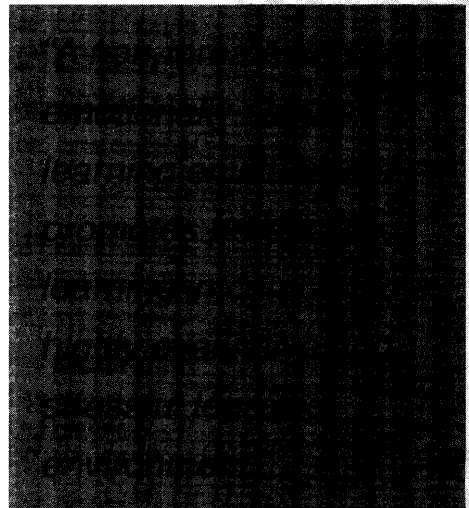
Implications for the Classroom

How would the knowledge that emotions affect thinking and learning help teachers in their classroom practices? According to Sylwester (1998), teachers should not only focus on developing the cognitive abilities of students but should also attempt to integrate emotional experiences into classroom life. There are some suggestions for classroom teachers:

1. Students need to learn and develop alternative ways of self control that encourage non-judgmental and non-aggressive forms of emotional expression. Teachers will need to be role models of such behavior.
2. Classroom activities should promote more metacognitive activities that encourage students to be open about their feelings, to learn to listen empathetically to others and be sensitive to others' emotions. Swartz's thinking strategies and attitudes on decision thinking promote effective thinking and are easy to follow (Swartz and Perkins, 1990). The suggested strategies are:
 - 2.1 Explore options thoroughly.
 - 2.2 Examine the pros and cons of options.
 - 2.3 Allow "heart" as well as "head" reasons to count when appropriate
 - 2.4 Retain the feeling that decisions matter a lot because they shape people's lives.

Practices are essential for the development of reflective thinking in students. Role play and debate on issues arising from historical events and literature texts help students develop empathy and compassion. The use of reality therapy in disciplining misbehaving students is another opportunity offered to impulsive youngsters to think through their actions and to chose alternative ways of behavior.

3. Classroom activities should promote social interaction. Tishman (1995) emphasizes that collaborative activities provide the means for developing empathy, integrity, trust, high-level thinking and positive interpersonal attitudes in students.
4. Classroom activities which draw out students emotions should be encouraged. Role play, simulations, debates and cooperative project work would be useful memory prompts for emotional releases.





5. A non-threatening and emotionally secure learning environment promotes productive learning in contrast to a highly evaluative and stressful learning environment.

A recent 1999 survey administered on a group of 30 post-graduate Diploma-in-Education trainee teachers solicited their views on the impact of emotions on thinking and learning. The results show that they were able to relate the effects of positive and negative emotions to attitudes towards learning, achievement and good thinking. This group of students participated in the survey at the end of the course on Effective Strategies for Thinking and Learning.

Conclusion

Acknowledgement of the crucial function of emotions in thinking and learning is important for teachers, students and parents alike. Promotion of positive attitudes and practices which encourage reflective thinking, empathy, integrity, cooperation and self-discipline should be given serious considerations by all involved in the welfare and learning of young people.

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