2009

Thinking About Thinking

Clear Thinking & Positive Thinking

Associate Professor Deborah Graham

Department of Psychology
Thinking About Thinking

For information to be useful there are two important components: **comprehension** and **evaluation**.

**Comprehension**

- An ability to understand material being provided in verbal and/or written statements
- This can be difficult if terminology is unfamiliar, technical or idiosyncratic
- An aid to this problem - Identify what is being communicated; paraphrase information; explain the material to a "naive" person

**Example (1)**: "Watching a violent movie after my brother's violent death was cathartic. This helps to demonstrate the construct validity of Breuer's hypothesis. On testing, however, no changes in circulating serotonin had occurred due to the movie. Thus, the ability of reconstruction to effect real change may be questioned".

What is being said in this sentence?
**Evaluation**

- Presupposes comprehension
- Involves seeing the significance and implications of material

*Evaluate* the statement made in example (1).

**A Further Distinction: Inductive and Deductive Thinking**

**Inductive Thinking:** From limited observation people form a theory to explain facts - eg: someone that knows nothing about Cairns is shown a film of people walking along the Esplanade; they may conclude that there is a high percentage of Japanese people resident in the city being viewed.

Inductive arguments have premises that purport to support the conclusion, however, there is no guarantee of the accuracy of the conclusion.

**Example (2):** Provide explanations for the following:
a) A married women goes to a single man's place 2 nights of every week for 3 hours.

b) Two police officers visit your next door neighbour's house

c) A person smelling of stale liquor is buying panadol at 6 am

How different are the responses within the group? What dangers are inherent in inductive thinking?

Examine the following inductive conclusions:

- Thirty six people walked through the door of the methadone clinic during the four hour observation period. Clearly, heroin problems in this city are widespread.

- The streets of Manunda are full of young people after dark. Residents do not feel safe leaving their homes at night.

“When Australians see politicians opposing issues for the sake of it, they know them for what they are: politically amoral opportunists” (John Spender, 2008). Parliamentarians are all rogues out to rort the system.
WARNING: BE CAREFUL OF GENERALISATIONS THAT OFTEN RESULT FROM INDUCTIVE THINKING.

Phrases that recognise (and thus legitimise!) the inductive nature of your argument include: ..it may be contended, ........it is reasonable to conclude,........on the basis of the evidence it may be argued, etc.

**Deductive Thinking** (a definition) - Refers to the use of scientific processes by people (in everyday life as well as scientific investigation!). The conclusion is related to the premise in such a way that if the latter is true, so must the conclusion be true.

**Example (3):**
All yellow bananas are ripe
This banana is yellow., therefore this banana is ripe
General rules arise from deduction (eg: a formula to work out the surface area of a cube can be applied to any cube; one doesn't need a new formula each time a cube needs to be measured).
Example (4):

A The most difficult part of any diet is the need to exercise continual willpower. Therefore those people with continual willpower will find dieting easier.

B "The neuroses are invariably the result of infantile sexual trauma, no matter how apparently non-sexual their symptoms. Necessarily, therefore, persons suffering from agoraphobia (a form of neurosis) must have suffered some emotional upset related to sexual experience" (Bell and Staines, 1979, p. 28).

In both of these examples if the premise is true, the conclusion is guaranteed to be true.

Deductive thinking also has many pitfalls for the unwary (and the wary!). Refer to the definition given above. What if the premise of a statement or argument is untrue?

To argue effectively it is critical to make clear whether one is arguing inductively or deductively.
So far we have explored what is sometimes referred to as vertical thinking. So what of lateral thinking (de Bono, 1970)? While de Bono (1970) recognises the importance of vertical thinking, he argues that people become "locked into" rigid thinking patterns, thus engendering the loss of creative problem solving.

**Lateral Thinking**

"The most basic principle of lateral thinking is that any particular way of looking at things is only one from among many other possible ways" (de Bono, 1970, p.58). Many different approaches are desired rather than the *best* approach.

Six Thinking Hats*
A method for thinking about an issue from different perspectives is described by DeBono (1985) in Six Thinking Hats. DeBono describes six hats; each is a different colour. Each colour represents a different way of thinking.

The white hat -- neutral, objective, fact-oriented thinking;
the black hat -- negative and points out every reason an idea might not work;

the red hat focuses on emotions, feeling, hunches, and intuition;

the yellow hat symbolises optimism and points out good things about an idea;
the green hat is creative and thinks of novel approaches;

the blue hat represents metacognition (thinking about the process of thinking itself).

People are encouraged to "put on each hat" when thinking about a situation. This exercise is helpful in making people aware of which modes of thinking are habitually practiced and comfortable, and which may not be used as often.

*NB: DeBono is popularist rather than scientific
Example (5):

How would you describe this figure?

Example (6):
Why are eggs sold by the dozen?

Lateral thinking attempts to break a rigid pattern of thinking. Searching for alternative arguments and explanations helps to achieve this.

Example (7)

Below is an essay topic, find three different ways of approaching the question.

Topic: Universities will ultimately be obsolete with the advent of the virtual classroom. Critically evaluate this claim.
Positive Thinking

How well you cope with university life has a lot to do with your attitude. Unfortunately, we have been encouraged since we were children to engage in a lot of negative self-talk that can be very destructive personally and professionally. The technique for changing the way we think is referred to by psychologists as cognitive restructuring.

Example (8):
The first piece of written work you receive back at university has been failed. You believed the work was good enough to at least pass. How do you feel?

People have been conditioned to treat failure as a personal judgement. It should never be viewed this way.

Example (9):

<table>
<thead>
<tr>
<th>Destructive</th>
<th>Constructive</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am a failure</td>
<td>I didn't do very well this time. I will find out where I went wrong.</td>
</tr>
</tbody>
</table>
I haven't got the ability

This is somewhat different to what I'm used to. I will aim to do better next time.

I'm bound to fail again

I will try harder next time and if I fail again perhaps I should look at a course more suited to me.

Failure is **not** bad. Only those people willing to take risks are placed in a position that allows failure. Risk taking is a form of very positive **growth**. Unless we take risks, we limit our potential (and we'll never fail!). When we fail we should congratulate ourselves for trying and re-evaluate our true interests. Areas that we find satisfying and enjoyable generally reflect our strengths.

Positive thinking is related to much more than situations of failure. How we view ourselves and how we believe other people see us helps to determine who we are. Always think about what you are thinking and *how* you are thinking.
Thought restructuring takes practise but is effective. Thought sampling and assessment is very important.

Albert Ellis

Ellis saw cognition and emotion as being closely linked. If a person can control their thoughts, they can exert control over their emotions.

Ellis (1977) used the "ABC" method to demonstrate the cognitive nature of his therapeutic approach.

\[
\begin{align*}
A & \quad \text{(an activating event - eg: you get rejected for 6 jobs in a row)} \\
\Downarrow & \\
C & \quad \text{(emotional and behavioural consequences - eg: you feel depressed and worthless)}
\end{align*}
\]

Did A cause C?

Ellis argues that B causes C. What is B? Your belief about A.
A
(an activating event - eg: you get rejected for 6 jobs in a row)
\[ \downarrow \]
B
your beliefs about A
\[ \downarrow \]
C
(emotional and behavioural consequences - depend on B)

It is contended that beliefs are the important elements that create irrational views that people have of themselves and situations encountered. This can be personal torture!. Remember to always THINK ABOUT THINKING.

Don’t let negative/depressing thoughts get in the way of action. The tiniest step toward facing and resolving a perceived problem can be a gigantic move toward control, resolution and peace of mind.
Selected References

(they’re oldies but they’re pretty good)


