

Tools

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CS 305

Critical Thinking

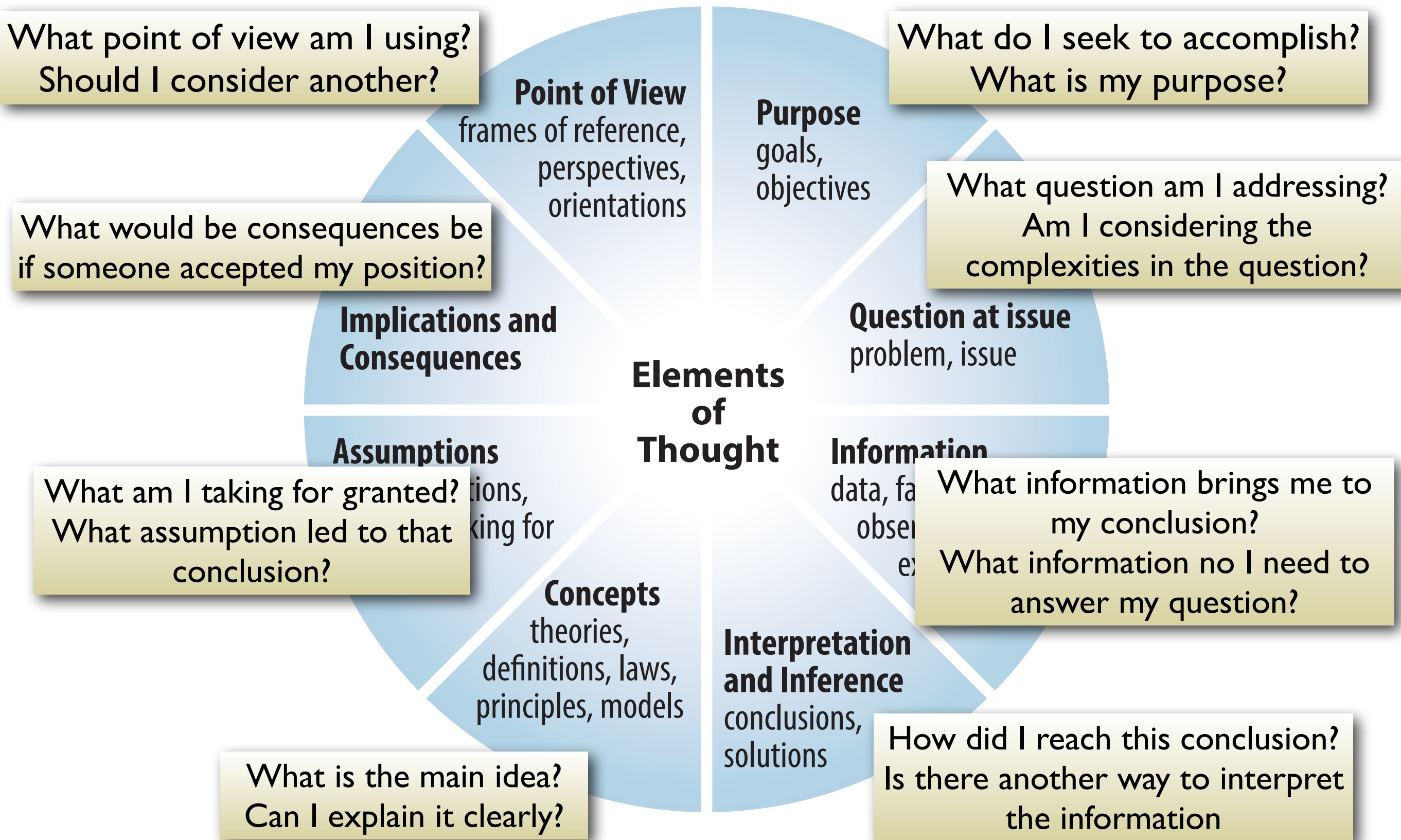
- Everyone thinks, all the time ...
- Why “Critical Thinking”?
- Much of our thinking is biased, distorted, partial, uninformed, or down-right prejudiced.
- This costs us money, and quality of life

Critical Thinking

- A Definition:
 - ▶ Critical thinking is the art of analyzing and evaluating thinking with a view to improving it.
[Paul & Elder, *Critical Thinking*, 2014]

A Critical Thinker:

- raises vital questions and problems
- gathers and assesses relevant information
- comes to well-reasoned conclusions and solutions, testing them against relevant criteria
- keeps an open mind, using multiple systems of thought with different assumptions and implications
- communicates effectively



Use these “Universal Standards” to critique your own thinking:

- Clarity
- Accuracy
- Precision
- Relevance
- Depth
- Breadth
- Logic
- Significance
- Fairness

Could you elaborate further?

Could you give me an example?

How could we check on that?

How can we find out if that's true?

Could we be more specific?

Could you give me more details?

How does that relate to the problem?

How does that help us to decide this issue?

What factors make this a difficult issue?

Breadth:

Is this a complex issue, the pervasive problem of drug use among young people, or is it a narrow, specific issue? It fails to deal with the point of complexity of the issue. Is there another way to look at this question? What would this look like from a conservative standpoint? What would this look like from the point of view of...?

Fairness:

Are we considering all relevant viewpoints in good faith? Are we distorting some information to maintain our biased perspective? Are we more concerned about our vested interests than the common good? (The conservative or liberal standpoints which gets decided into an issue but only recognizes the insights of one side of the question).

We naturally think from our own perspective, from a point of view which tends to privilege our position. Fairness implies the treating of all relevant viewpoints alike the combination of thoughts are mutually supporting and make sense in combination, without reference to one's own feelings or interests. Because we tend to be biased, the thinking is “logical.” When the combination is not mutually supporting, is in favor of our own viewpoint, it is important to keep the standard of fairness at the forefront of our thinking. This is especially important when the situation may call on us to see things we don't want to see, or give something up that we want to hold onto.

Controlling technology

Technology impacts society, often in unforeseen ways

Examples

- **Digital photography eliminating dark rooms**
- **E-mail reducing snail mail volumes**
- **Laptop computers increasing neck and back pain**
- **Cell phones making users feel safer**
- **Refrigerator freon and the ozone layer**
- **Internet allows us to communicate effectively but enables outsourcing of programming jobs overseas**

Questions

Give examples of how new Internet applications require society to create new rules

Have computers made some things possible that you wish had never been created?

Ethical frameworks

How can we develop rules in a consistent manner to best resolve these issues?

Kantianism

Reasoning method to determine “universal morals”

- Immanuel Kant (1724-1804)
- Often coincide with those in the Bible, but derived via reason

Formulation

- What is always good without qualification?
 - Intelligence and courage applied to rob a bank is not good
 - A good will is
- Kant argues for dutifulness
 - Doing what we ought to do (based on moral rule) versus what we want to do
 - How does one know if an action is grounded in a moral rule?

Kantianism

Kant's categorical imperative (first formulation)

- Act only from moral rules that you can at the same time will to be universal moral laws
- False promises
 - To determine if this is moral, apply it universally
 - Fails Kant's categorical imperative by producing a logical contradiction
 - Promises are meaningless when they are universally false!
- Contradiction in what I wish to do and what I expect others to do

Kantianism

Kant's categorical imperative (second formulation)

- Act so that you always treat both yourself and other people as ends in themselves, and never only as a means to an end
 - Empathy!
- Chip plant example
 - Manager must hire employees to finish a job
 - Manager knows the plant will close in a year
 - Best candidates are from out-of-state
 - Should the manager inform the candidates of the pending closure?
 - » No disclosure – you treat candidates as a means to an end
 - » With disclosure – you treat them as the ends in themselves
 - » From Kant's second formulation, the answer is to disclose

Act utilitarianism

An action is right (or wrong) to the extent that it increases (or decreases) the total happiness of the affected parties/beings

- Bentham (1748-1832) and Mill (1806-1873)
- Based on the principle of utility (greatest happiness principle)
- Focus is on consequences (consequentialist theory)
 - Motive is irrelevant (compared to Kant?)
 - Agreeing on affected parties is an issue (animal rights?)

Rule utilitarianism

Adopt moral rules which, if followed by everyone, will lead to the greatest increase in total happiness

- Principle of utility applied to moral rules not individual actions
- A workable theory for evaluating moral problems

Social contract theory

Morality consists of rules governing how people treat one another, that rational people agree to accept, for their mutual benefit, on the condition that others follow those rules as well

- **Hobbes (1603-1679)**
- **Requires two things**
 - **Moral rules to gain the benefits of social living and prevent us from living in a “state of nature”**
 - **Government must be capable of enforcing the rules**
- **Arrangement of giving rights to rational people is the “social contract”**

Example: Censorship

Child Internet Protection Act (CIPA)

- **Government requirement for installing antipornography filters before receiving federal funds for Internet access**
 - **Argument for: Libraries do not provide X-rated magazines or movies so they should not be obliged to provide Internet pornography. Damage to children significant unless filtered.**
 - **Argument against: Filters are inaccurate and inconvenient. They restrict freedom of speech from some web publishers**
- **Upheld by U.S. Supreme Court in 2003**
 - **Not the role of libraries to provide a public forum for free speech**

Is CIPA ethical?

Kantian evaluation

Act utilitarian evaluation

Social contract theory evaluation

Is CIPA ethical?

Kantian evaluation

- Protecting children from harm using filters
- Assumption is that some non-pornographic web pages are filtered
- Filters treat the creators of non-offensive, but blocked web pages solely as a means to the end for restricting children's access to pornographic materials

Act utilitarian evaluation

- Up to each of us.
- Enacting CIPA results in fewer children being exposed (+)
- Some legitimate sites filtered (-)

Social contract theory evaluation

- Private viewing of pornography does not make social living impossible
- Public libraries offers arguments on both sides (assumption is that filters block useful sites)

Catching chat-room predators

Police sting operations to lure pedophiles

- Ethical?
- Kantian analysis
- Utilitarian analysis
- Social contract theory analysis

Catching chat-room predators

Police sting operations to lure pedophiles

- **Ethical?**
- **Kantian analysis**
 - Is the will leading to the action OK?
 - Yes and no
 - » Overall goal is good
 - » But, using deceptiveness to do so is always wrong to a Kantian!
- **Utilitarian analysis**
 - Result is a public benefit (e.g. harm one pedophile so that the rest of society benefits)
 - Publicity may deter other pedophiles
 - Impact on chat rooms as an effective medium for communication if one knows they are being “watched”?
- **Social contract theory analysis**
 - Misrepresentation by pedophile should be punished
 - Police are also misrepresenting themselves
 - Not a clear cut argument