

CRITICAL THINKING

Business Decision Making

foi



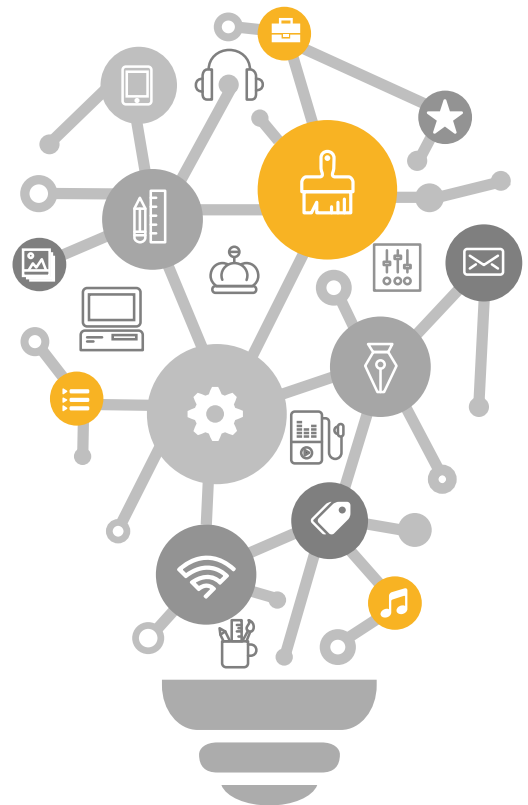
FACULTY OF
**ORGANIZATION
AND INFORMATICS**

AGENDA

- Main levels of thinking
- What is critical thinking?
- Elements of critical thinking
- Intellectual standards
- Intellectual traits
- Homework

MAIN LEVELS OF THINKING

- **Lower Order Thinking**
 - Unreflective
 - Relies on our intuition
 - Largely self-serving/ self-deceived
- **Higher Order Thinking**
 - Selectively reflective
 - Lack critical thinking vocabulary
 - Inconsistently fair
- **Highest Order Thinking**
 - Explicitly reflective
 - Routine use of critical thinking tools
 - Consistently fair



WHAT IS CRITICAL THINKING



- „Critical thinking is the art of analyzing and evaluating thinking with a view to improving it.”
[The miniature guide]
- For the topic that is being analysed
 - We defined statements that describe 8 elements of thinking
 - Each statement should be defined respecting the 8 intellectual standards

ELEMENTS OF CRITICAL THINKING

- **All reasoning has a PURPOSE.**
 - What am I trying to accomplish?
 - What is my central aim? My purpose?
 - EXAMPLE: *To give recommendations about how to behave in this corona-situation.*
- **All reasoning is an attempt to FIGURE something out, to settle some QUESTION, solve some PROBLEM.**
 - What question am I raising?
 - What question am I addressing?
 - Am I considering the complexities in the question?
 - EXAMPLE: *To make conclusions what each member of the society can do in this situation.*



ELEMENTS OF CRITICAL THINKING

- **All reasoning is done from some POINT OF VIEW.**
 - From what point of view am I looking at this issue?
 - Is there another point of view I should consider?
 - *EXAMPLE: Corona situation should be analysed from the perspective of doctors, teachers, students, salesmans, firemany, patients and others.*
 - *Now, we have to analyse the situation from each of those perspectives:*
 - *P1: ...*
 - *P2: ...*
 - *P3: ...*
 - *For each of perspective we have to give appropriate conclusions and reccomendations at the end of critical thinking.*



ELEMENTS OF CRITICAL THINKING

- **All reasoning is based on ASSUMPTIONS.**

- What am I taking for granted?
- What assumption has led me to that conclusion?
- EXAMPLE: *People are safe when they are distanced more than 1 meter from others.*

- **All reasoning is based on DATA, INFORMATION and EVIDENCE.**

- What information am I using in coming to that conclusion?
- What experience have I had to support this claim?
- EXAMPLE: *The virus is transmitted by droplet.*



ELEMENTS OF CRITICAL THINKING

- **All reasoning is expressed through, and shaped by, CONCEPTS and IDEAS.**
 - What is the main idea here?
 - Can I explain this idea?
 - EXAMPLE: *The main idea here is to protect human lives and influence on the duration of the pandemia.*
- **All reasoning contains CONCLUSIONS.**
 - How did I reach this conclusion?
 - Is there another way to interpret the information?
 - EXAMPLE: *Reccomendations:*
 - *Recc1: Stay at home:*
 - *Recc2: ...*
 - *Recc3: ...*



ELEMENTS OF CRITICAL THINKING

- **All reasoning leads somewhere or has IMPLICATIONS and CONSEQUENCES.**
 - If someone accepted my position, what would be the implications?
 - What am I implying?
 - Examples:
 - *Our recommendations influence the recommendations on lower levels. They have to follow them. We will give the additional explanations with each of our recommendations so that all members at the lower levels can follow the recommendations.*



INTELLECTUAL STANDARDS



- When defining each of previous element of critical thinking, we use one or more **statements**.
- Each statement should satisfy eight intellectual standards (or as much as possible).
 - **Clarity**
 - **Accuracy**
 - **Precision**
 - **Relevance**
 - **Depth**
 - **Breadth**
 - **Logic**
 - **Fairness**

INTELECTUAL STANDARDS



- **CLARITY**
- Bad example: *What to do in this corona situation?*
 - Who? What? Why?
- Better example: *What anybody of us can and should do every day to participate in preventing the spread of the virus and protect ourselves and all people around us?*

INTELECTUAL STANDARDS



- **ACCURACY**
- Bad example: *Virus can have no damage in population under 30 years.*
 - NOT TRUE
- Better example: *Virus is potentially dangerous for everyone.*

INTELLECTUAL STANDARDS



- **PRECISION**
- Bad example: *The mortality of corona is low.*
 - How much?
- Better example: *The mortality of the corona virus is 0.1%.*

INTELECTUAL STANDARDS

WASH YOUR HANDS



WATER AND SOAP



PALM TO PALM



BETWEEN FINGERS



FOCUS ON THUMBS



BACK OF HANDS



FOCUS ON WRISTS

- **RELEVANCE (for the topic)**
- Bad examples:
 - *The sky is blue.*
 - *Not relevant for the topic at all.*
 - *We should often wash our hands.*
 - *It is not necessarily relevant. It is important to accent proper hand washing.*
- Better examples:
 - *The number of new infected people today is 50.*
 - *We should often wash our hands using soap and following the procedure.*

INTELECTUAL STANDARDS



- **DEPTH**
- Bad example: *Don't go out.*
 - Why? Give more details.
- Better example: *Don't go out to decrease the possibility of spreading the virus...*

INTELLECTUAL STANDARDS



- **BREADTH**
- Bad example: *Older people should stay at home all the time.*
 - What about other people (and perspectives)
- Better example: *Older people should stay at home all the time, and others can go out, but only when necessary.*

INTELLECTUAL STANDARDS



- **LOGICAL**
- Bad example: *It's cold. We should not go outside.*
 - Not logical.
- Better example: *It's cold. Virus is spreading faster during the cold weather. We should be more careful those days (when it's cold).*

INTELLECTUAL STANDARDS



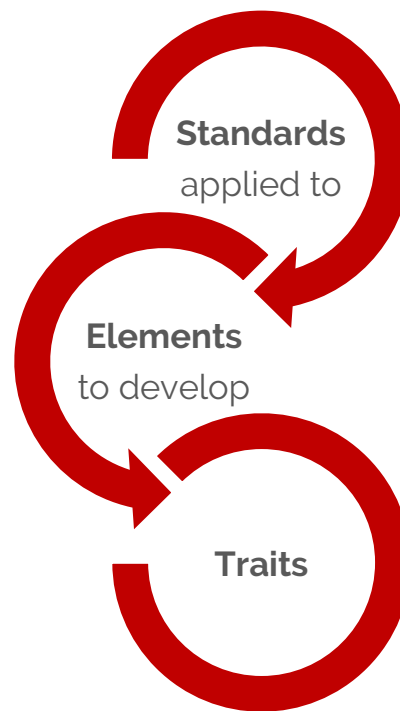
- **FAIRNESS**
- Bad example: *The number of affected people today in Croatia is 50; in Austria, it is 60. Croatia is better than Austria.*
 - Not necessarily fair.
- Better example: *The number of affected people today in Croatia is 50; in Austria, it is 60. We cannot claim which country is better because the methodology and criteria for determining that some person is infected are different in those two countries.*

INTELLECTUAL TRAITS

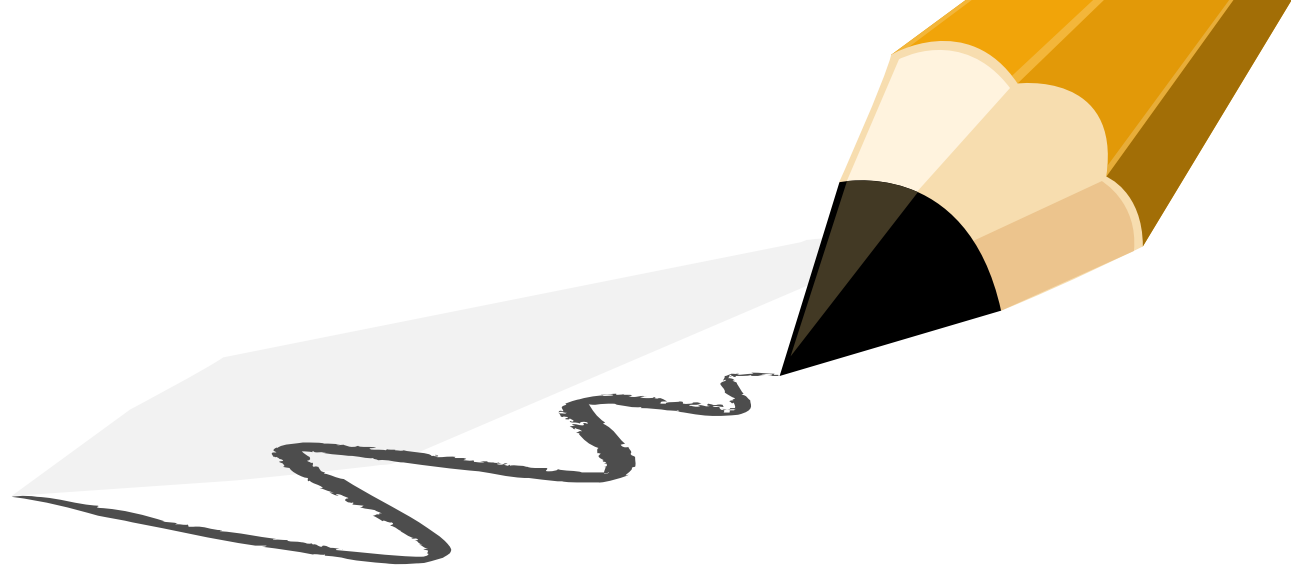
- Intellectual Humility vs Intellectual Arrogance
- Intellectual Courage vs Intellectual Cowardice
- Intellectual Empathy vs Intellectual Narrow-mindedness
- Intellectual Autonomy vs Intellectual Conformity
- Intellectual Integrity vs Intellectual Hypocrisy
- Intellectual Perseverance vs Intellectual Laziness
- Confidence In Reason vs Distrust of Reason and Evidence
- Fairmindedness vs Intellectual Unfairness



CONNECTION BETWEEN ELEMENTS, STANDARDS AND TRAITS



HOMEWORK



- Choose any problem situation you want (actual social issue, some problem from your place, scientific or professional paper) and do reasoning on it:
 - Try to obtain as many elements you can
 - When describing the elements, try to satisfy as many intellectual standards as you can
- Make video (3 to 3.5 minutes), not written paper, and upload it on Moodle (Forum)
- Make reflections and evaluations on two your colleagues' works