



# Decisions

I&E Basics





# Today....

Decisions and rationality models

- What is a decision?
- How does the environment affect our decisions?





**How does this relate to I&E?**





# Examples of decisions

How did you make them?



# Decisions in certainty



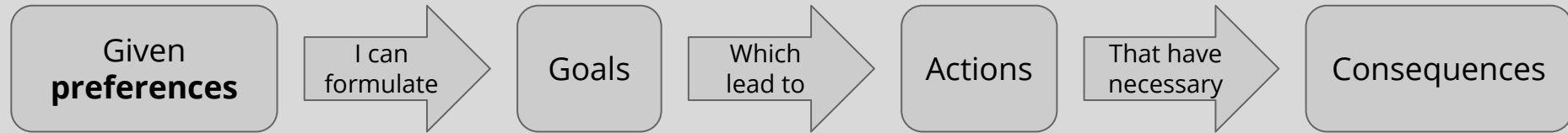
# Olympic decision making



- Everything is known and necessary
- Deliberation is instantaneous and equal for all actors



# Decision making in certainty





# Reflections

If everything was known and necessary...

- Is choice possible?
- Who is the entrepreneur?
- What differentiates one actor from another?





# Decisions in risk

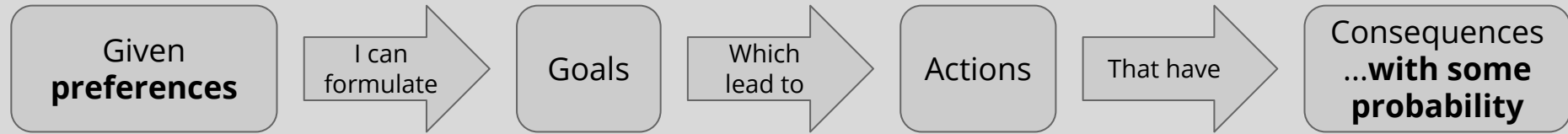




# Olympic decision making - risk

- Probabilities are known
- Optimal strategies are instantaneously deliberated upon
- Can we find a global optimum?

# Decision making in risk





# Reflections

If everyone knows the risks...

- How can choices be informed?
- Who is the entrepreneur?
- What differentiates one actor from another?



# Decisions in uncertainty



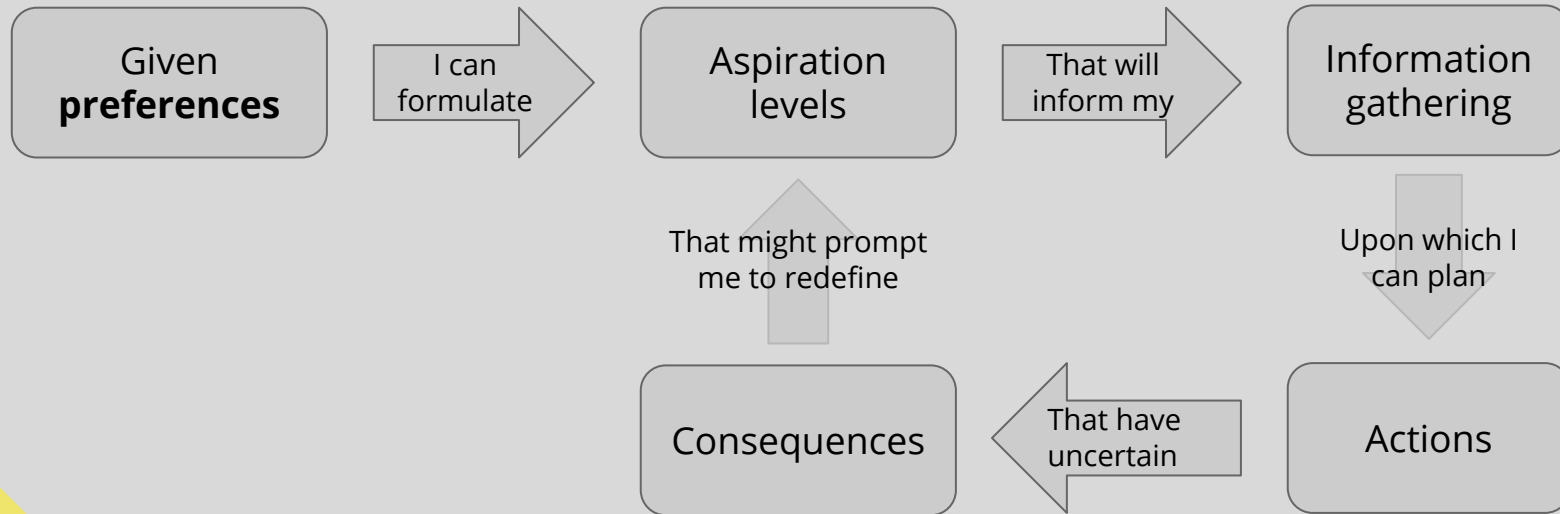


# Bounded decision making

- Search is needed to find probabilities
- Assumption is still that the truth is “out there”
- Deliberation takes time and resources



# Decision making in uncertainty





# Reflections

If we're searching the same world...

- How can routines be defined?
- Who is the entrepreneur?
- What differentiates one actor from another?





# Decisions in ambiguity



# Retrospective decision making

- Act first, justify later

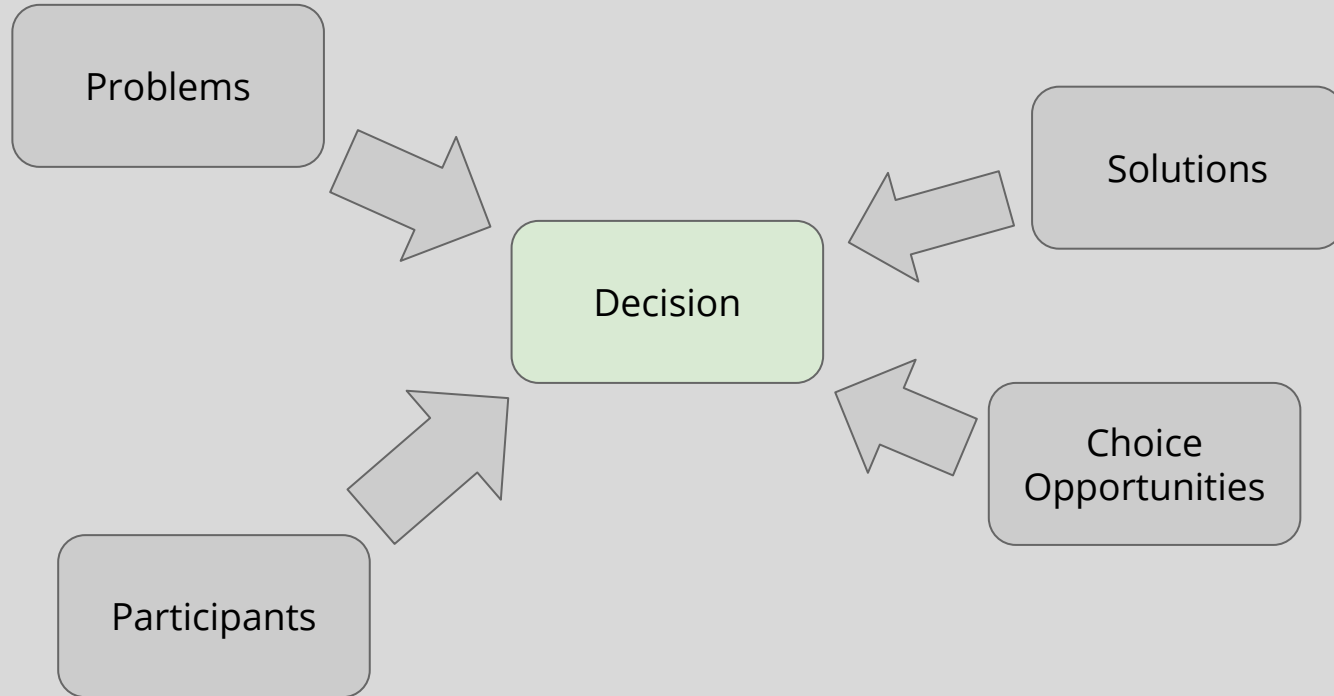




# Revisiting the garbage can

- Decisions are the result of a garbage:
- Problems, decision makers, solutions and decisional situations are together
- In the right temporal orders

# Decision making in the garbage can



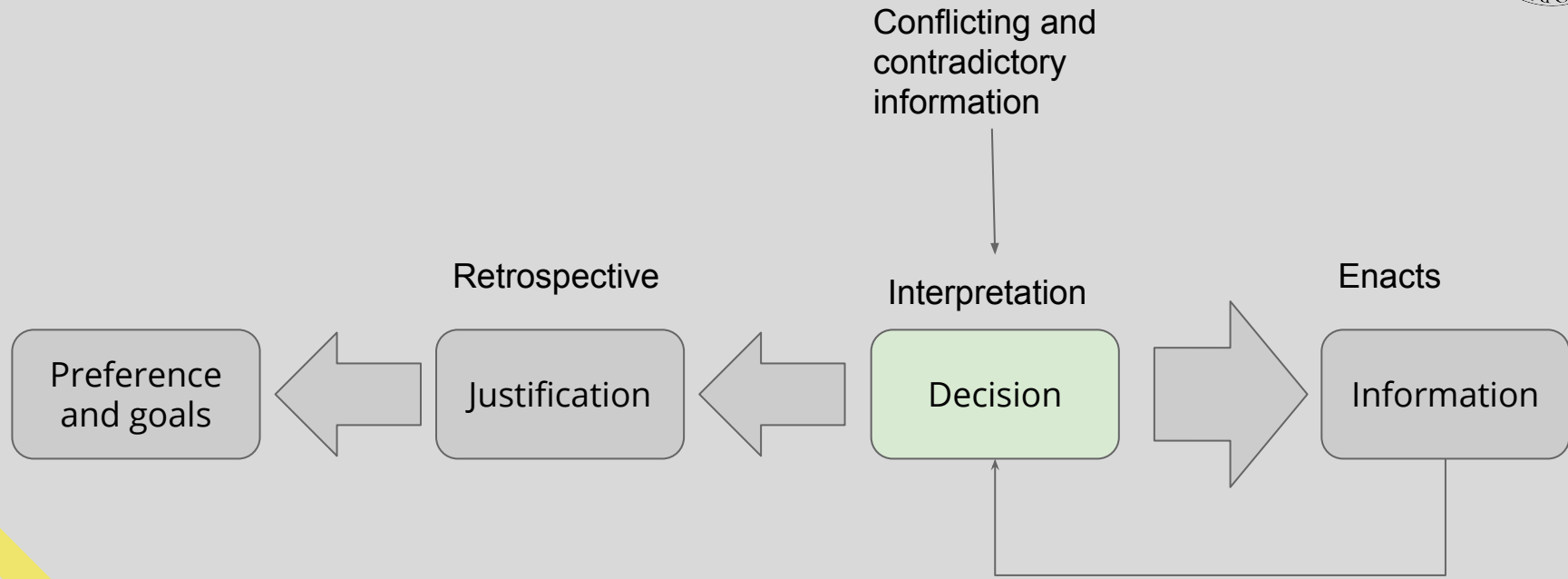


# Reflections

- If everything was known and necessary...
- Did I really decide?
- Can I be an entrepreneur?
- What differentiates one actor from another?



# Enactment rationality





# Back to our examples...

- What type of rationality were they using?
- Were they “rational”?





# The Fox and the Grapes

- Starting from Aesop's fable...
- Is the fox's behaviour rational?
- What rationality does the fox apply?
- Did the fox have any alternatives?



|                         | <b>Certainty and risk (prospective rationality)</b>   | <b>Uncertainty (bounded rationality)</b>   | <b>Ambiguity strong (enacting rationality)</b>   | <b>Ambiguity weak (retrospective rationality)</b>   |
|-------------------------|---|--|--|---|
| <b>Innovation</b>       | Look at the world, pick up the information you need at no cost, maximize benefit, apply a risk coefficient                                    | A trial and error process based on the application of routines and incremental improvements                                      | An attempt to create a world around an idea, to align allies, to manipulate rules and tools so that a prophecy becomes real                | A random matching of problems, solutions, decision makers and situations thanks to temporal orders  |
| <b>Entrepreneurship</b> | Is the perfect planner, with tools and technologies to make the right decisions in the right moment. He/she applies risk factors as a gambler | Is an information seeker, that balances the cost and the benefits of acquiring information on the base of routines and practices | Is a world creator that spends time and efforts in a "political" game to set up what was not there and tear down what might be an obstacle | A person that engage in some endeavor accepting that ignorance and chance will be always playing a major role, and that the improbable might hide huge benefits |
| <b>Risks</b>            | To confuse risk with lack of information  | To get trapped in your routines  | To be superstitious about the feasibility of world you dream of  | To let yourself transported by randomness   |
| <b>Possible way out</b> | Either you go gambling, or you get a bit less naive   | To think about the way you think and ask yourself if your routine is still effective in a changing world                         | To check whether constraints out there can be manipulated according to your views  | To accept randomness and ignorance as part of our endeavors but also not to give up on the possibility that something is a bit rational                         |



**How does this relate to I&E?**



# Final Notice

Battle 7 preparation in A217





# References

Simon bounded rationality

Weick collapse of sensemaking

March garbage can

Daft Weick enactment?





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