

Anticipation and the structured analytic techniques

Methods of future research

Introduction

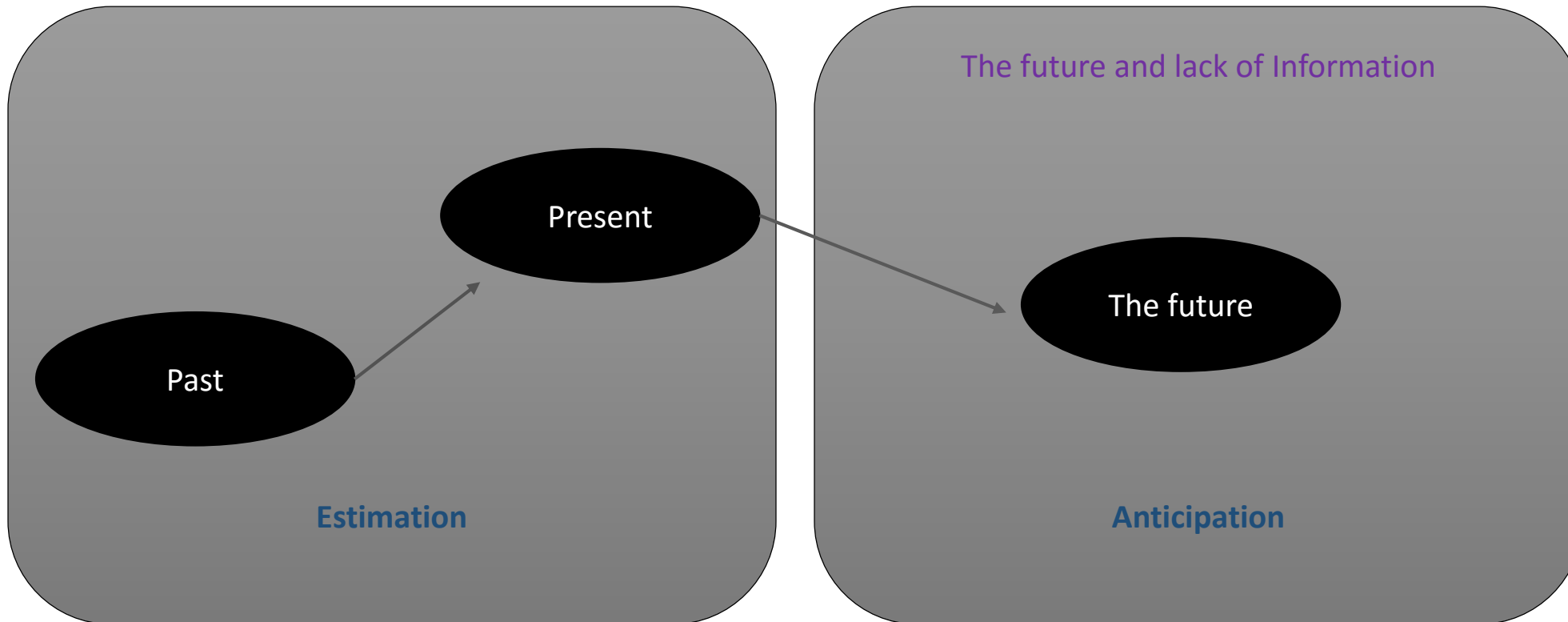
- Name: Faro Amini
- Freie Universität Berlin
- Institut Futur

- The Institut Futur is an Institute of future research @ the Free University of Berlin
- With 8 scientists
- MA program in future studies
- European Journal of future research

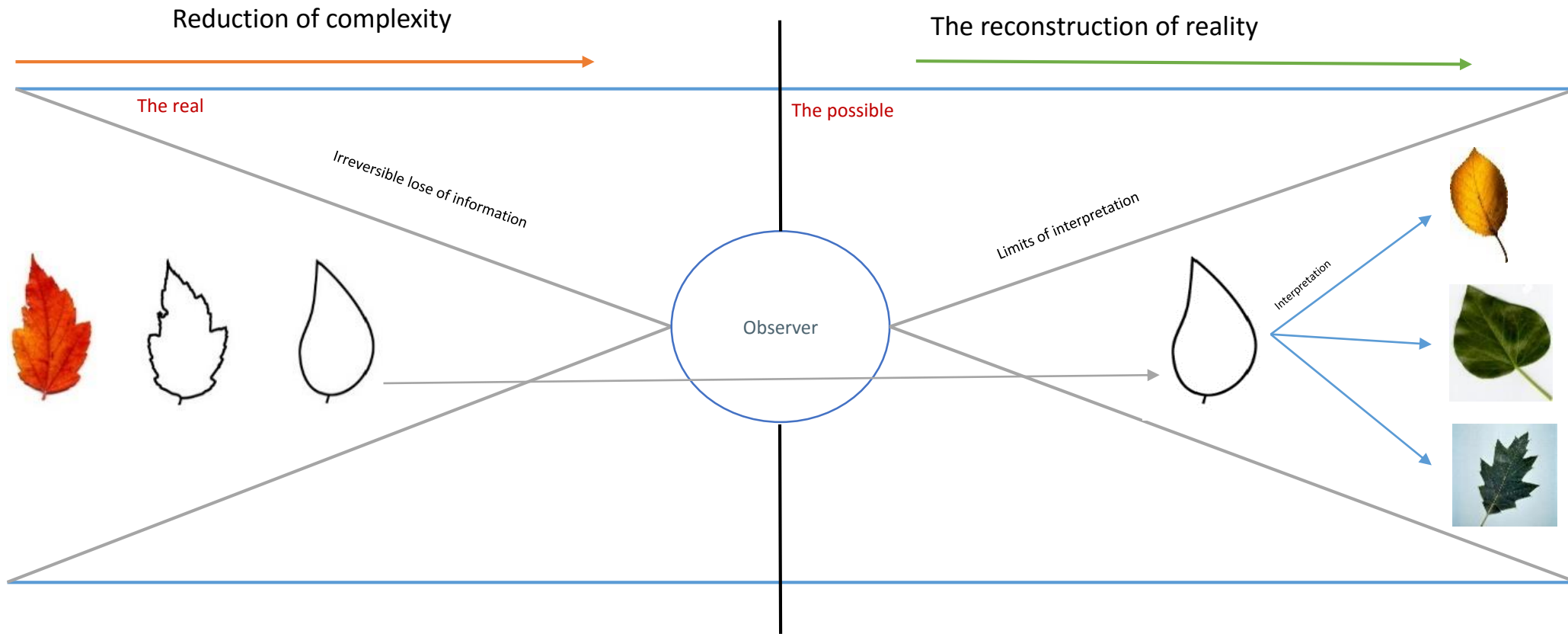
Introduction to our anticipation theory



The future



Reduction of the complexity of information



Reduction of the complexity of information

There are several influencing factors in the process of reducing the informational complexity:

➤ Cognitive biases

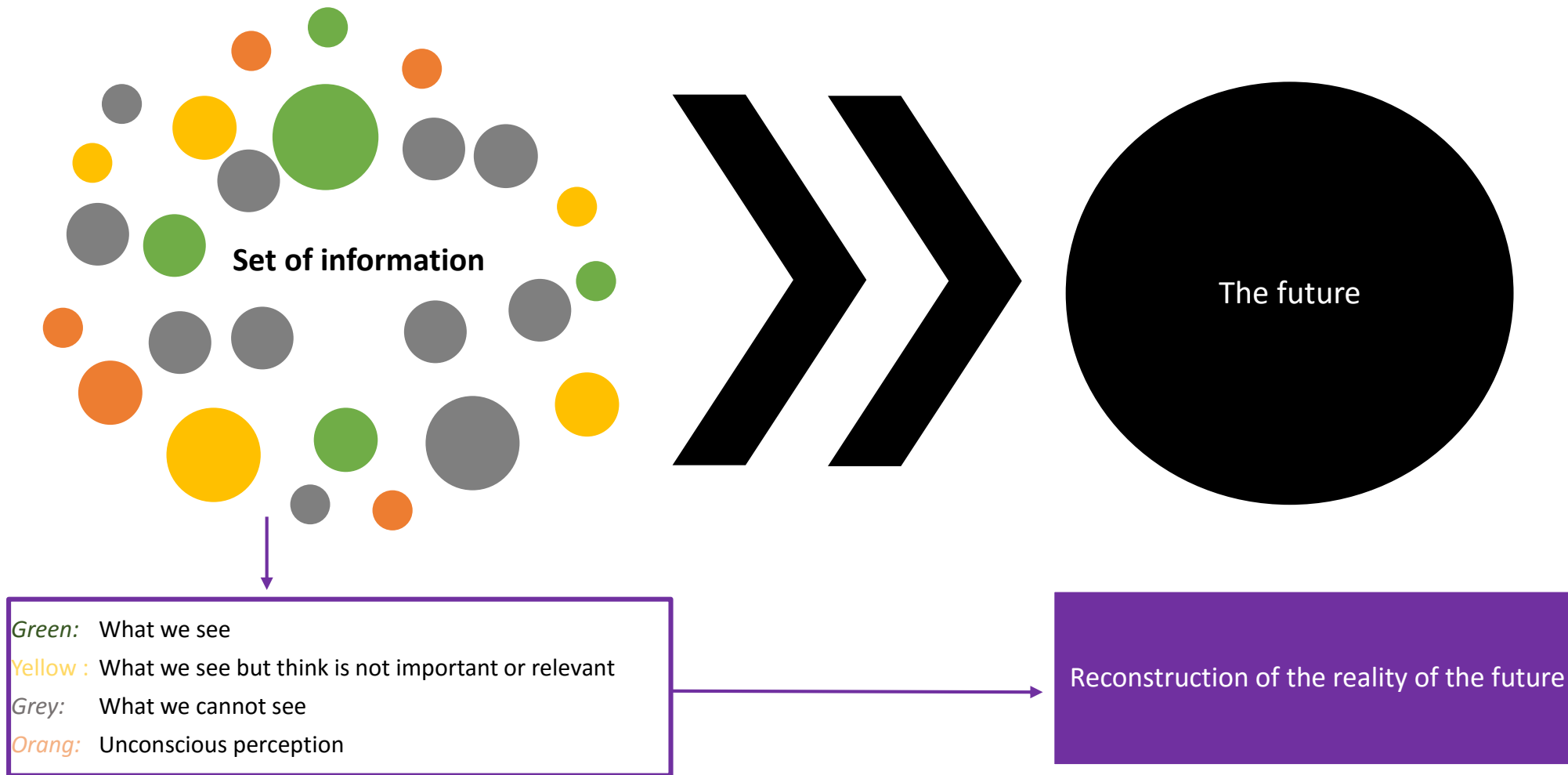
- We tend to perceive what we expect to perceive
- Conclusions drawn from a small body of data results in more confidence than drawn from a larger body
- Probability estimates are influenced by how easily one can imagine an event or recall a similar instance
- Humans tend to see patterns. Randomness tend to be rejected

Reduction of the complexity of information

There are several influencing factors in the process of reducing the informational complexity:

- What does influence how humans reduces complexity?
 - Culture
 - Experience
 - Education
 - Analytic skills

The reconstruction of reality



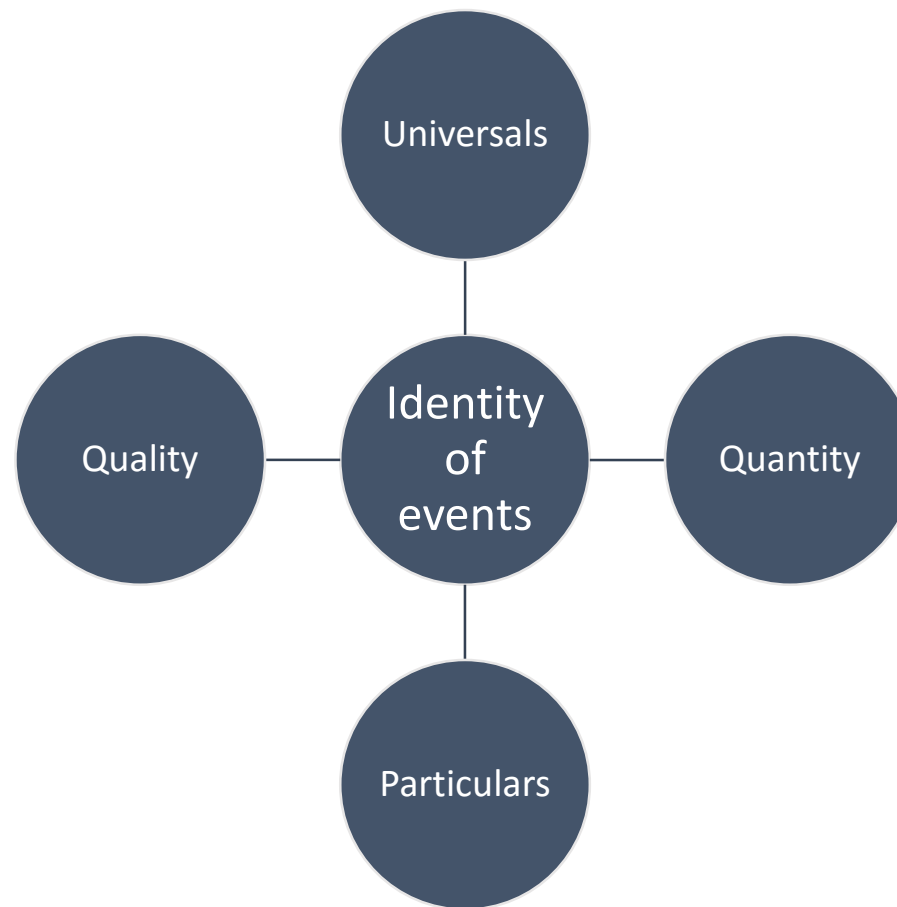
Identities of events and temporal ontology

Green: What we see

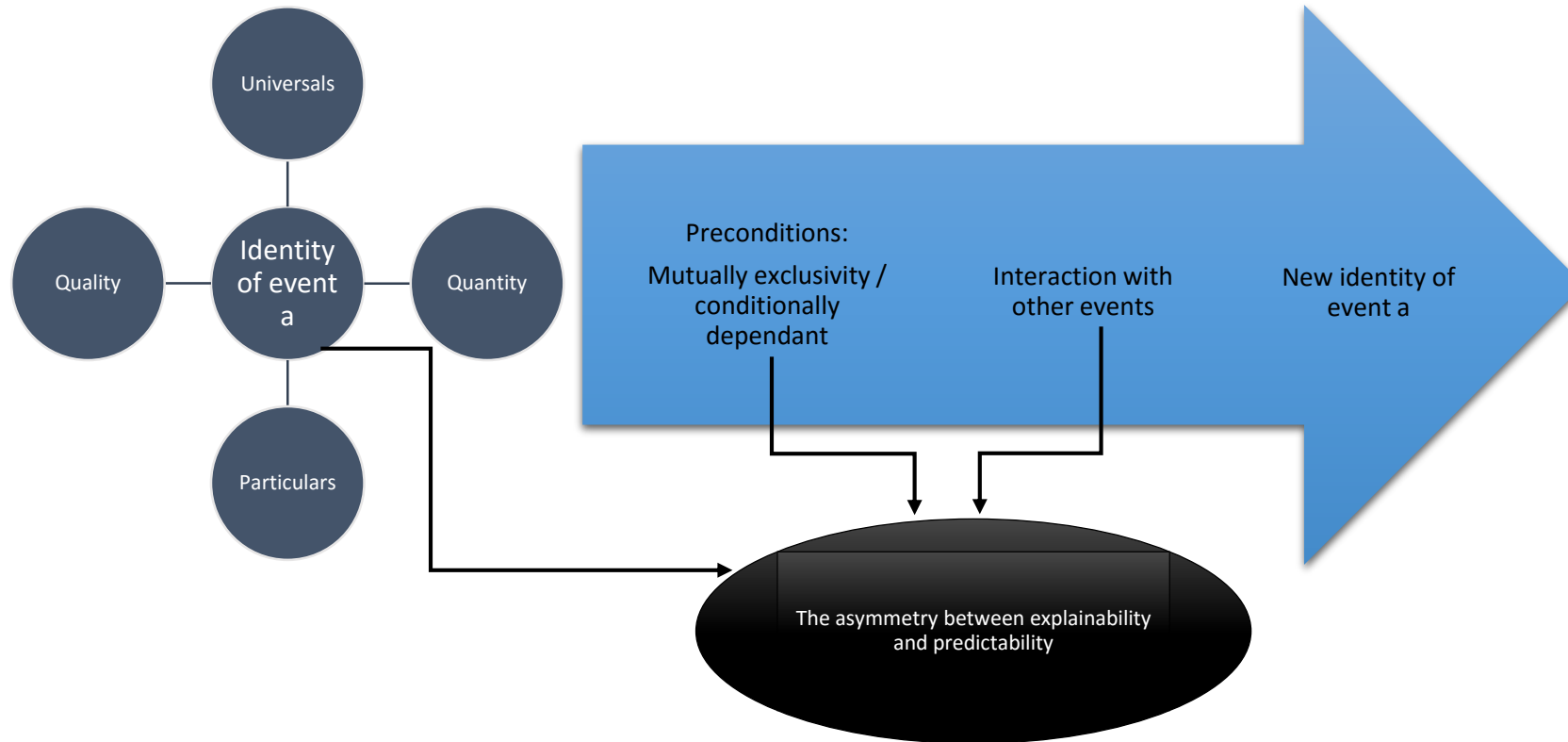
Yellow: What we see but think is not important or relevant

Grey: What we cannot see

Orang: Unconscious perception

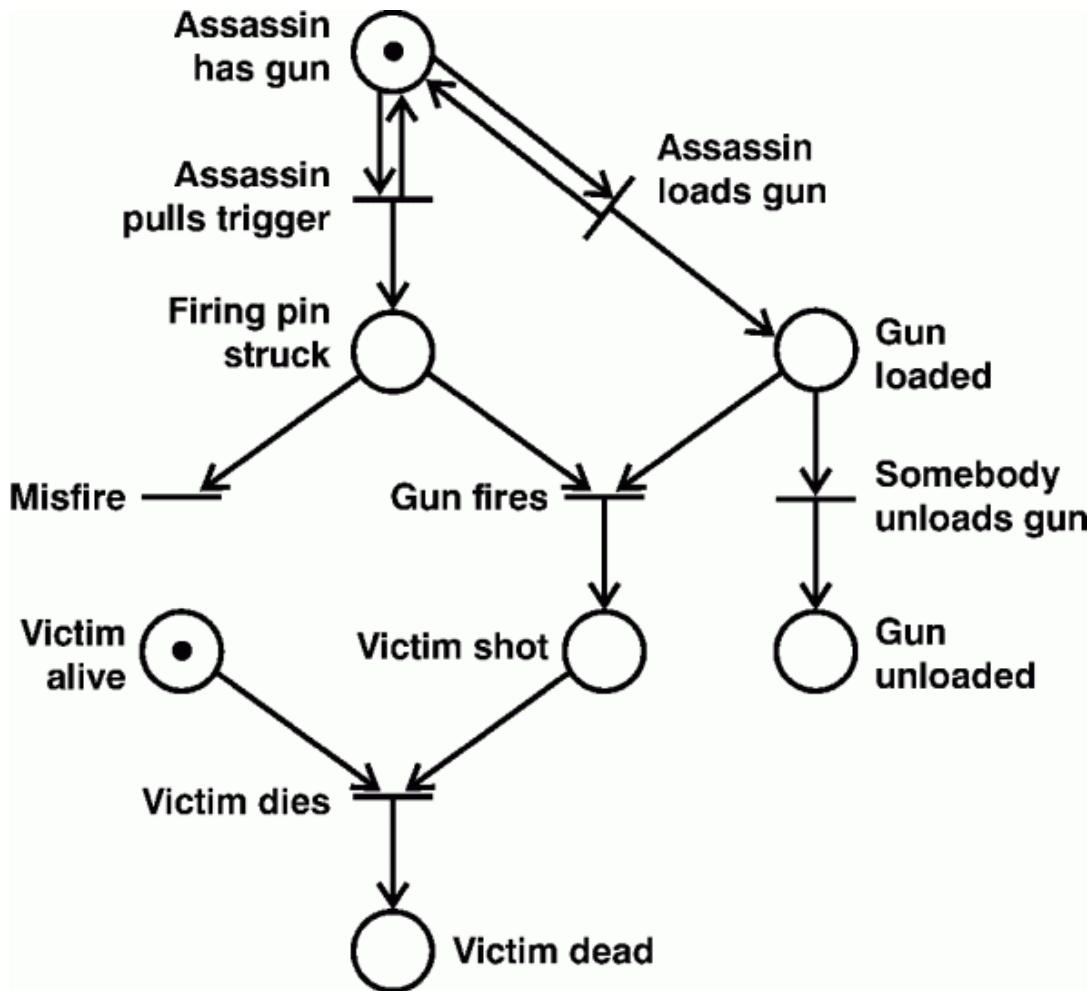


Identities of events and temporal ontology



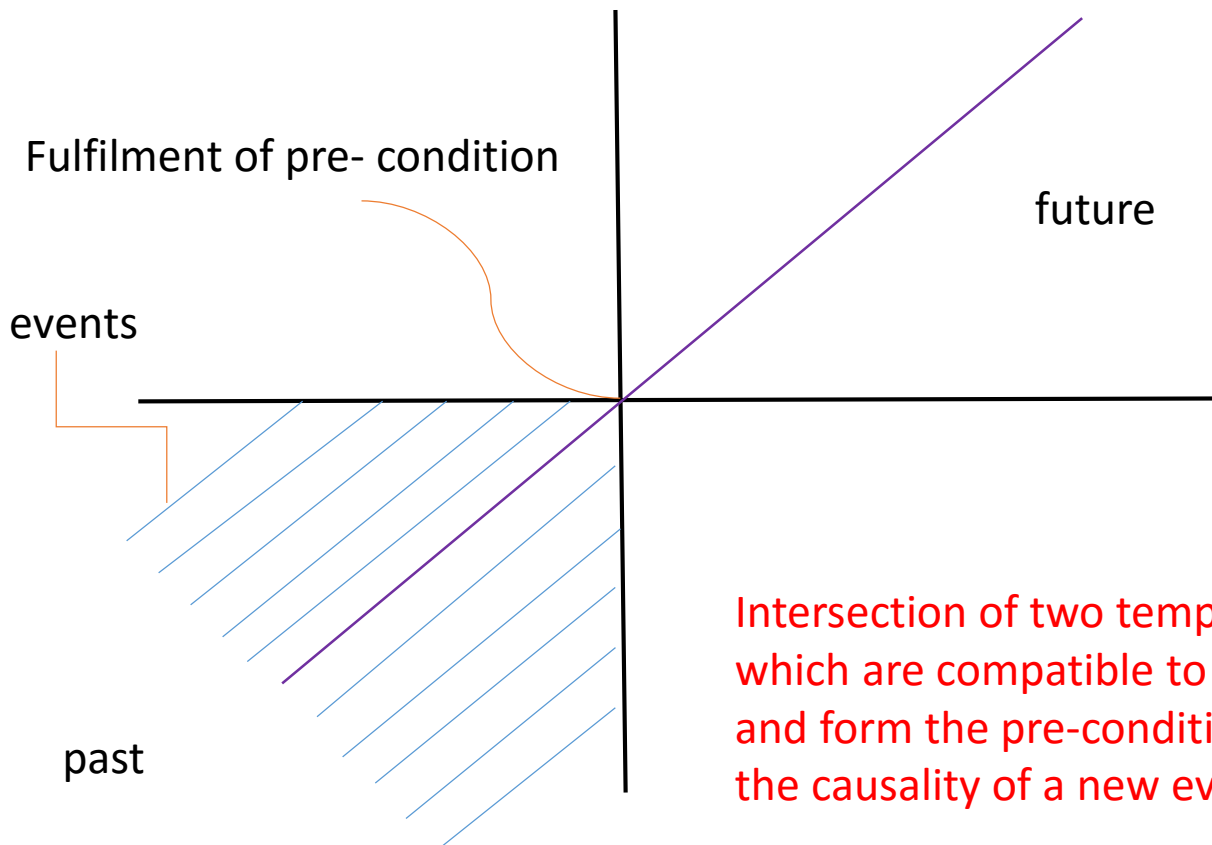
- The more complex an event is, the fewer the chance to properly define the identity and the properties of this event
- But what still remains, are the necessity to interact with other events and the fulfilment of pre-conditions, so this event can evolve into a new event or be a part of a future event

Search and identification of pre-conditions

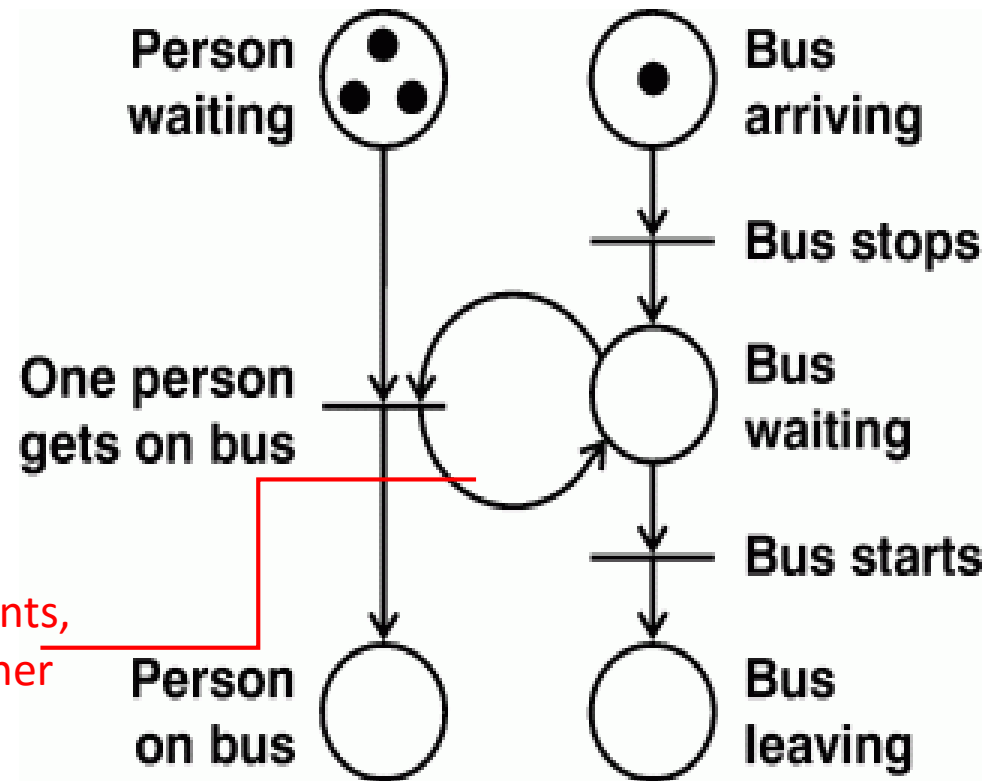


- To be able to predict what is going to happen, we have to observe how and how many of these pre-conditions are fulfilled
- It does not really matter, who that assassin is, or if he is nice to his dog
- So the identity of the gun and the victim
- Relevant are only those information of the identity of the assassin, which does “heavily” influence the outcome or the prediction of this particular event
- For example if he had any advanced combat training.....

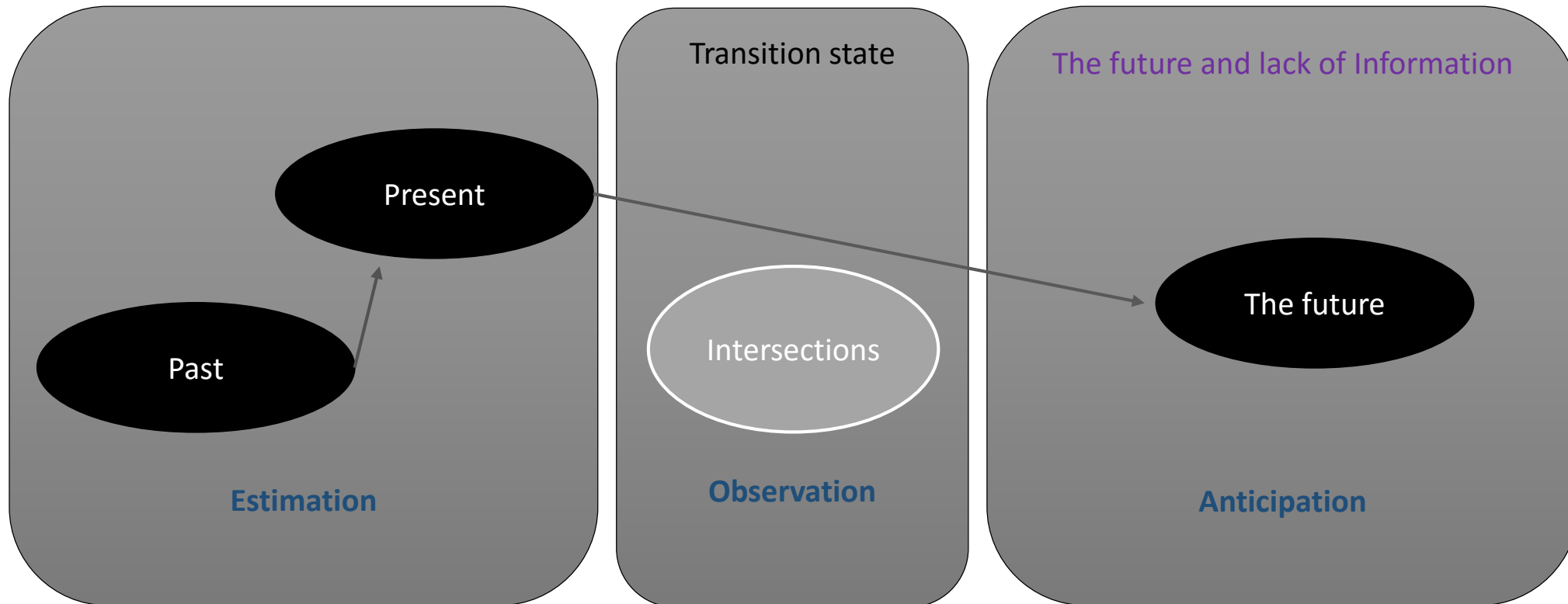
Search and identification of pre-conditions



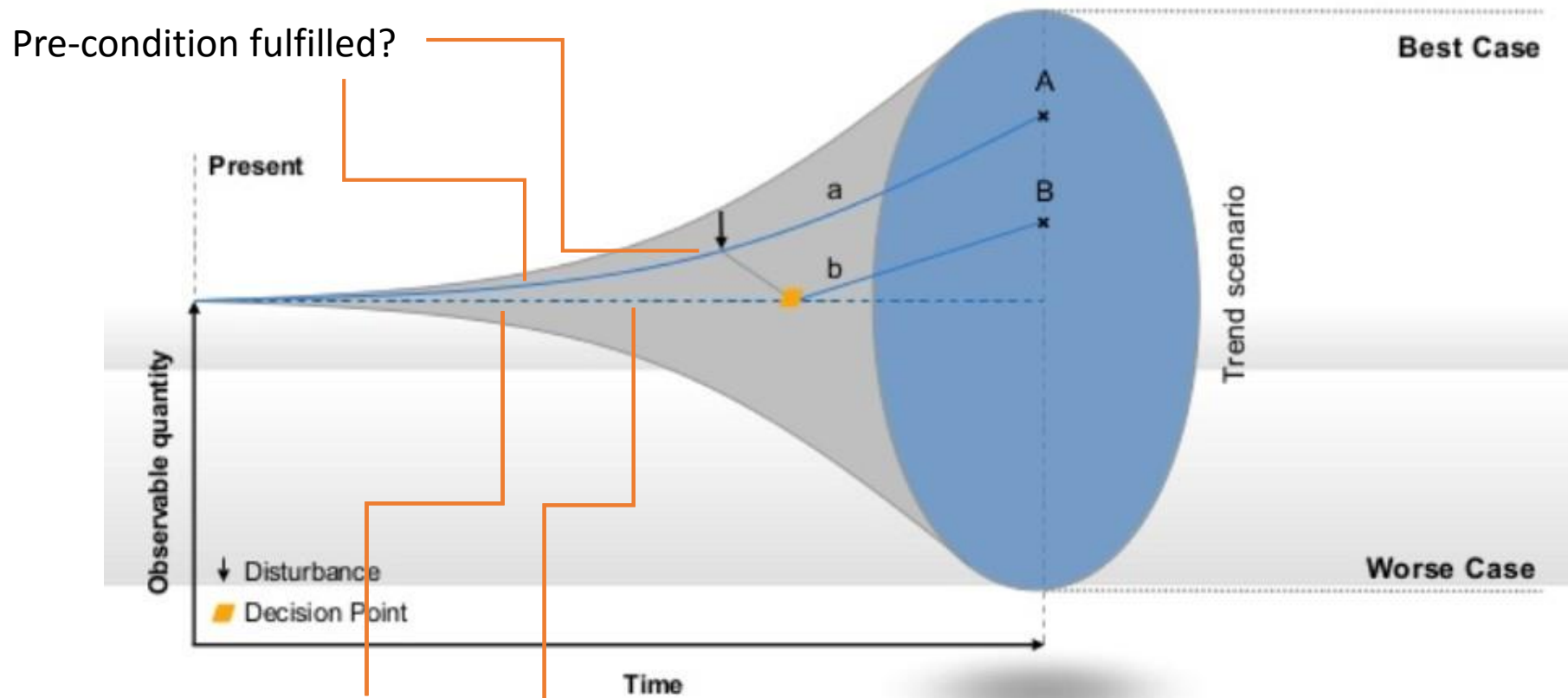
Intersection of two temporal events, which are compatible to each other and form the pre-conditions and the causality of a new event



Analysis Approach



Search and identification of pre-conditions / combined with the scenario technique



Pre-condition fulfilled?

Pre-condition fulfilled?
+ temporal causality

Instead of probability:
How many pre-conditions
have been fulfilled so far?

Structured analytic techniques

What can structured analytic techniques do so far?

- A toolbox containing different analytic techniques
- Such as (just a few examples):
 - Diagnostic techniques, that are primarily aimed at making analytic arguments, assumptions, or intelligence gaps more transparent;
 - Contrarian techniques explicitly challenge current thinking; and
 - Imaginative thinking techniques aim at developing new insights, different perspectives and/or develop alternative outcome

What are the structured analytic techniques good for?

- ... to properly organize information
- ... to minimize cognitive bias
- ... to be able to think of alternative developments

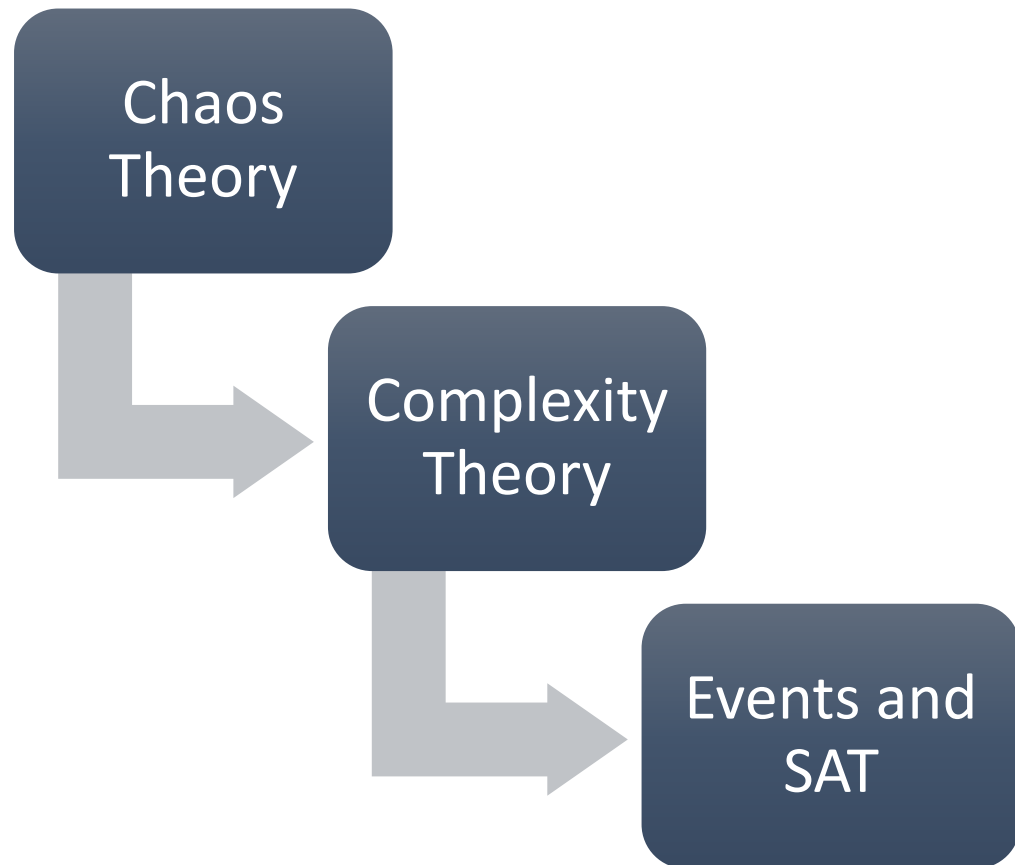
Structured analytic techniques

What have we done?

We have.....

- ... modified some of those techniques with aspects of plausibility and semantic structure
- ... enhanced those techniques with the knowledge of temporal logic
 - i.e. how do the semantic structures evolve, when an event is developing towards the future?
- ... improve some of the techniques to search for the fulfilment of pre-conditions
- ... and so forth....

Limits of our enhanced techniques



Limits of our enhanced techniques

The limits....

- For example we cannot predict what kind of beverages people will drink in 50 years

But it can help to give some insight...

- ... Putin in Syria
- ... Foxconn in Vietnam
- ...

Kontakt



Freie Universität Berlin - Institut Futur
Fabeckstraße 37
14195 Berlin

Wissenschaftliche Mitarbeiter:

Faruch Amini amini@institutfutur.de

Tel.: +49-(0)30-838-62981 Fax.: +49-(0)30-838-462981





Thank you for your attention