

SMART DECISION MAKING

or

Why software organizations force smart people to make dumb decisions

London, July 2007

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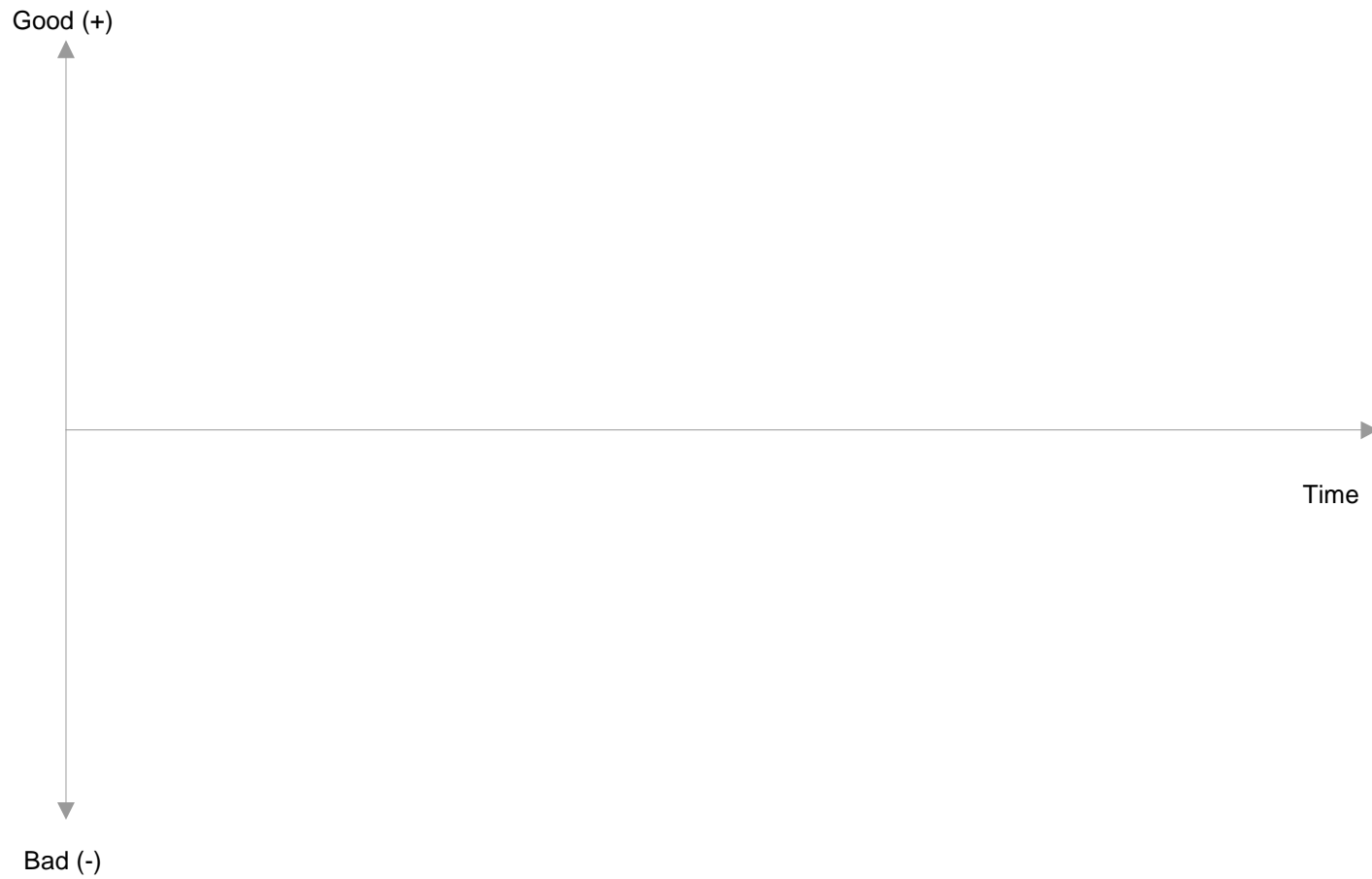
Anatomy of a Decision...

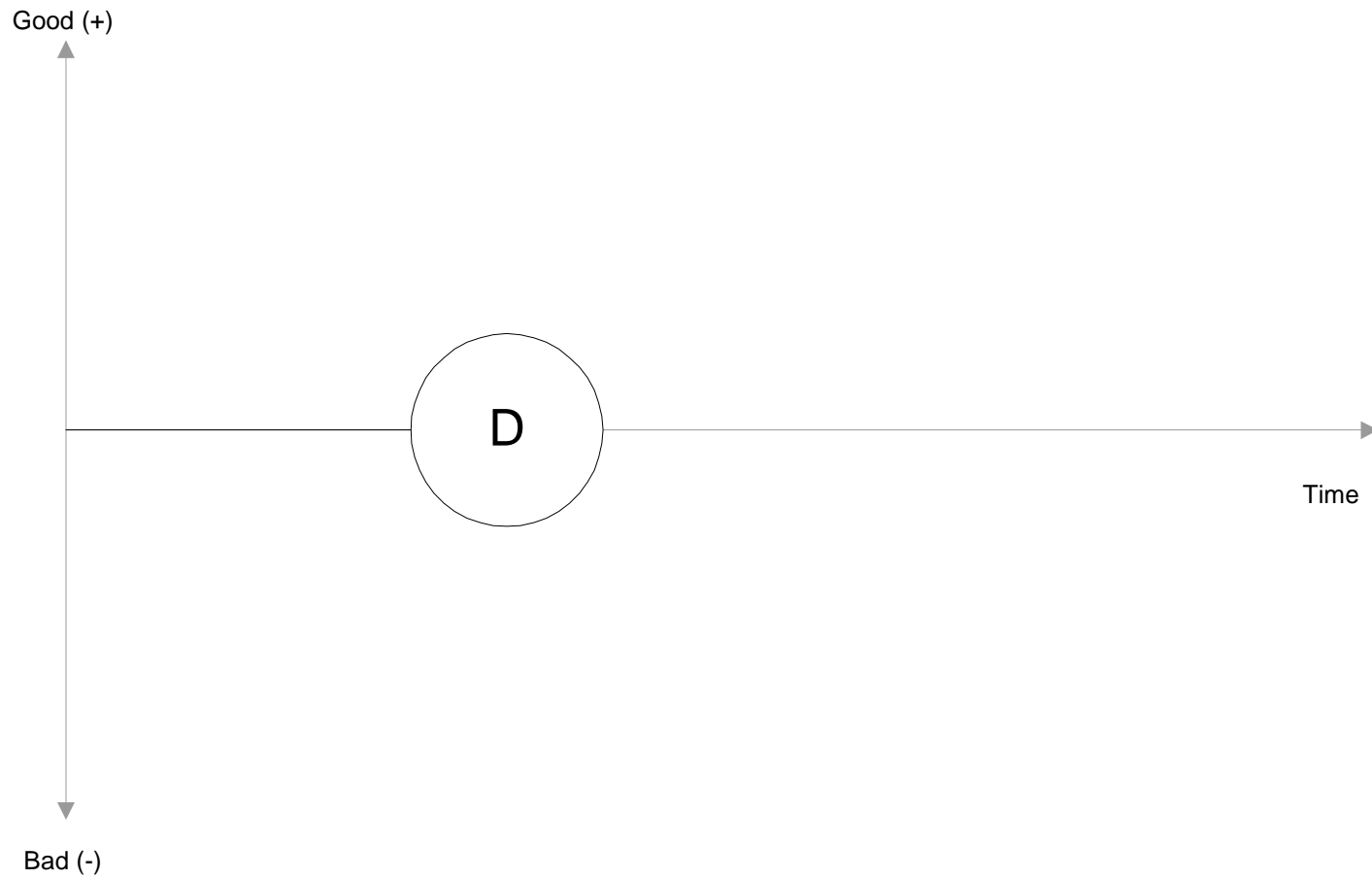
A decision is an event in time...

...From a set of initial conditions...

...That makes a difference

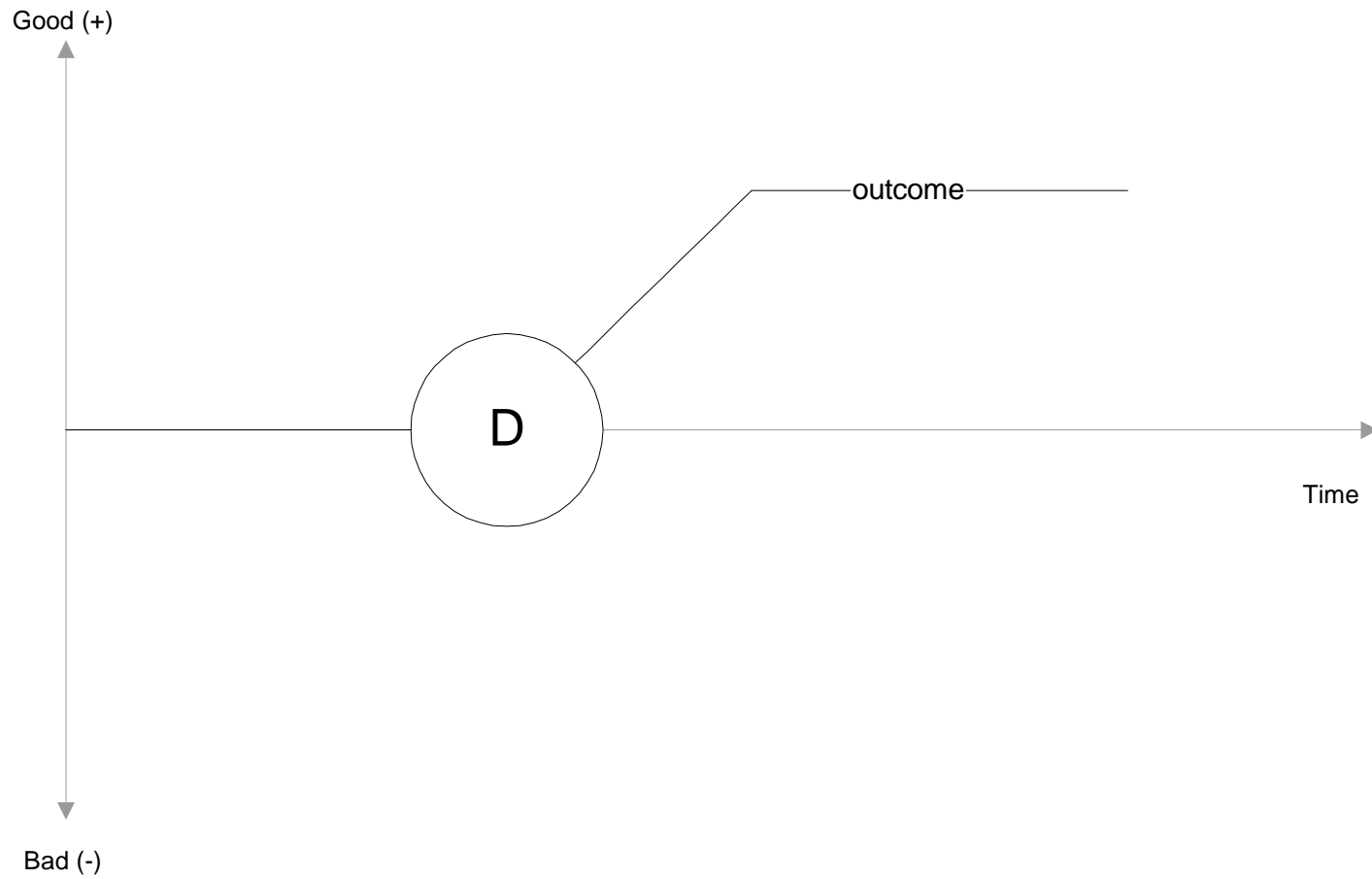
(even if the decision is to do nothing?)

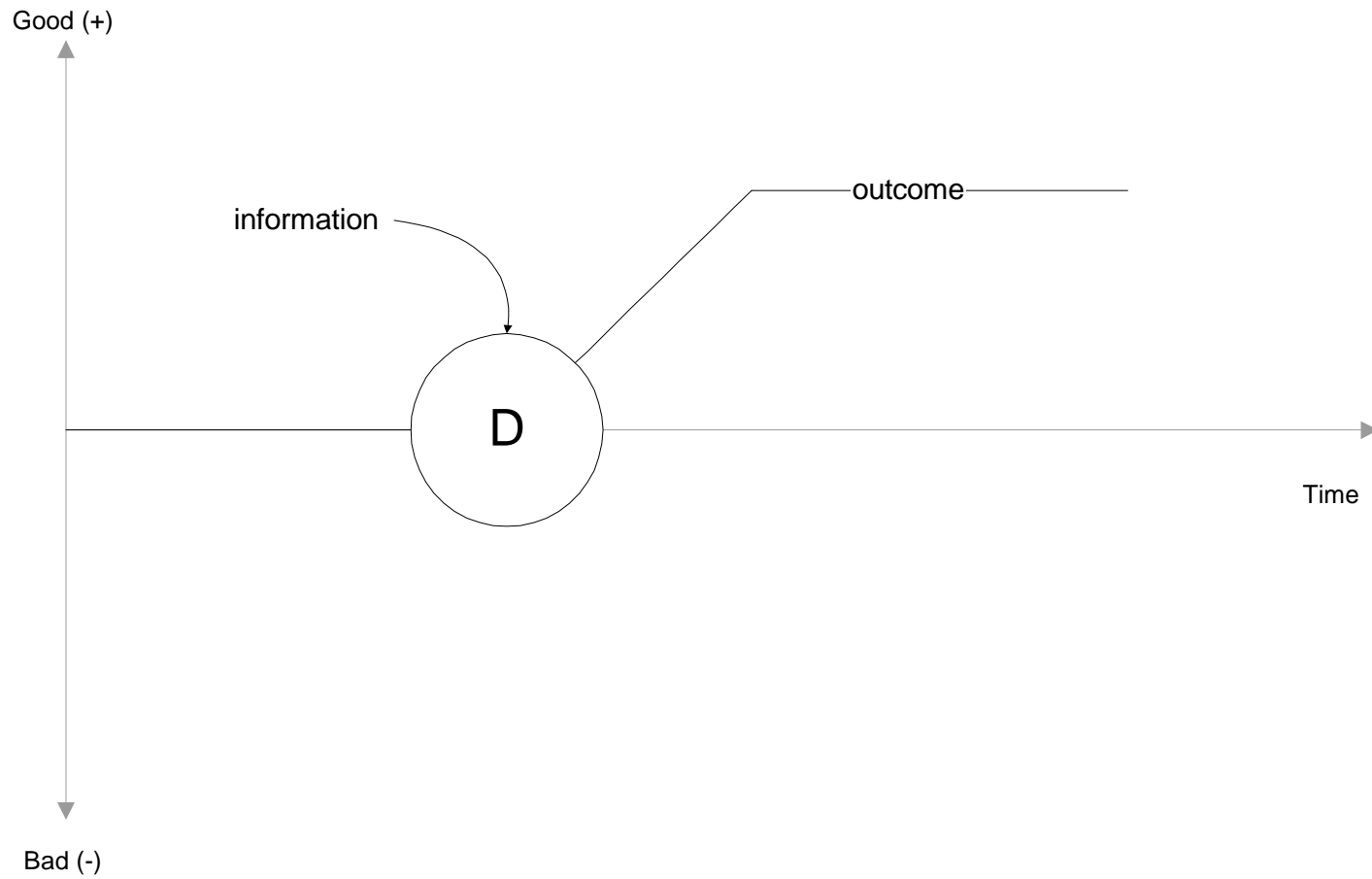




Smart Decision Making: Anatomy of a Decision

Tom Gilb's Seminar, July 2007





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...Anatomy of a Decision...

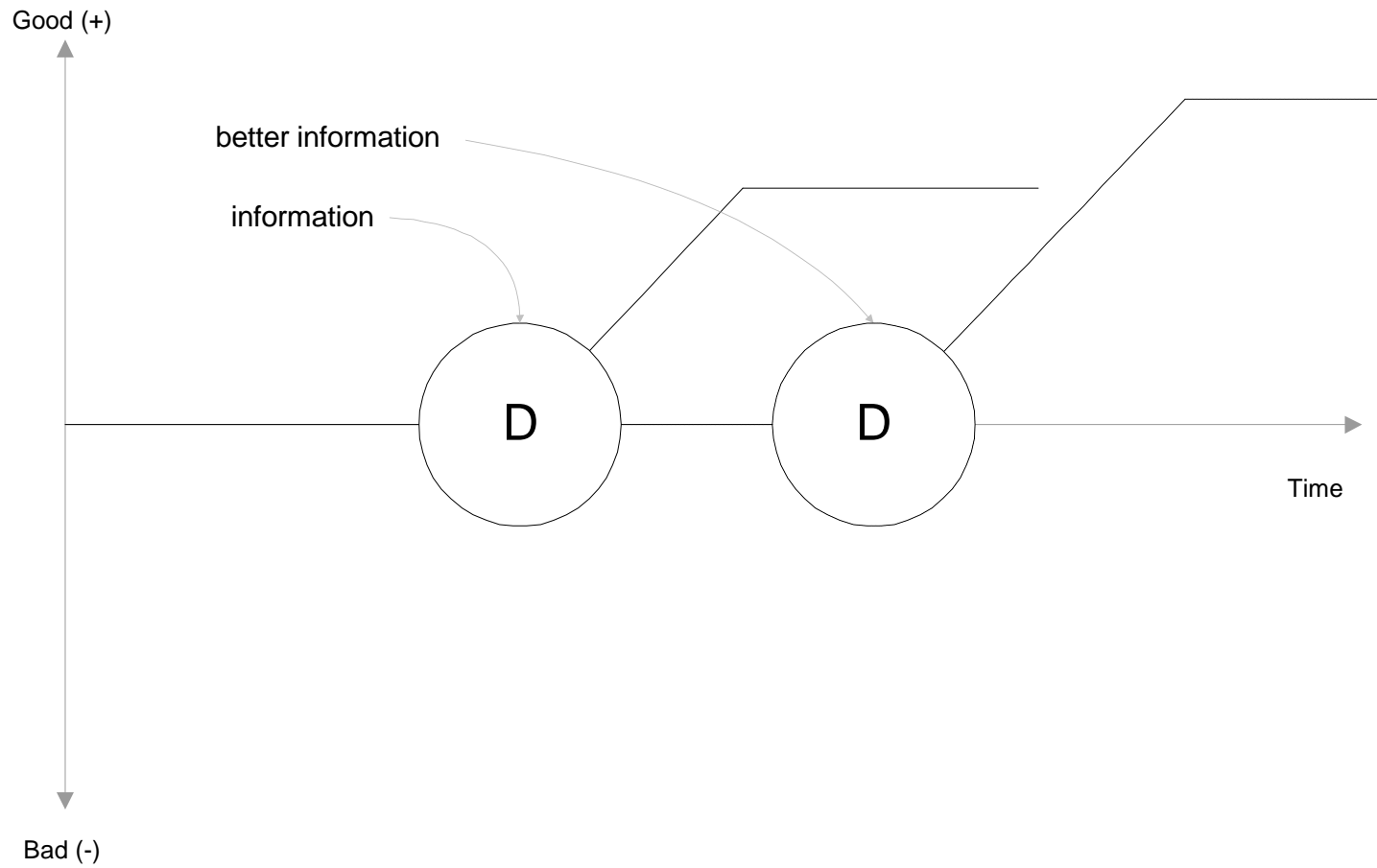
- **The quality of the decision is influenced by the information available to the decision maker:**
 - **Better information enables better decisions**

 - **A better decision has:**
 - **More benefit**
 - **More predictability**

 - **The best decision has optimal benefit and predictability**
 - **Trade off**

...Anatomy of a Decision...

- **Better information from:**
 - **Searching and investigation**
 - **Analysis of available information (methods and tools, e.g decision trees)**
 - **Waiting for information to accrue**
 - **Deferred decision making**
- **Information is, at best, ‘unripe hindsight’**
 - **Hindsight is never available when you need it!**

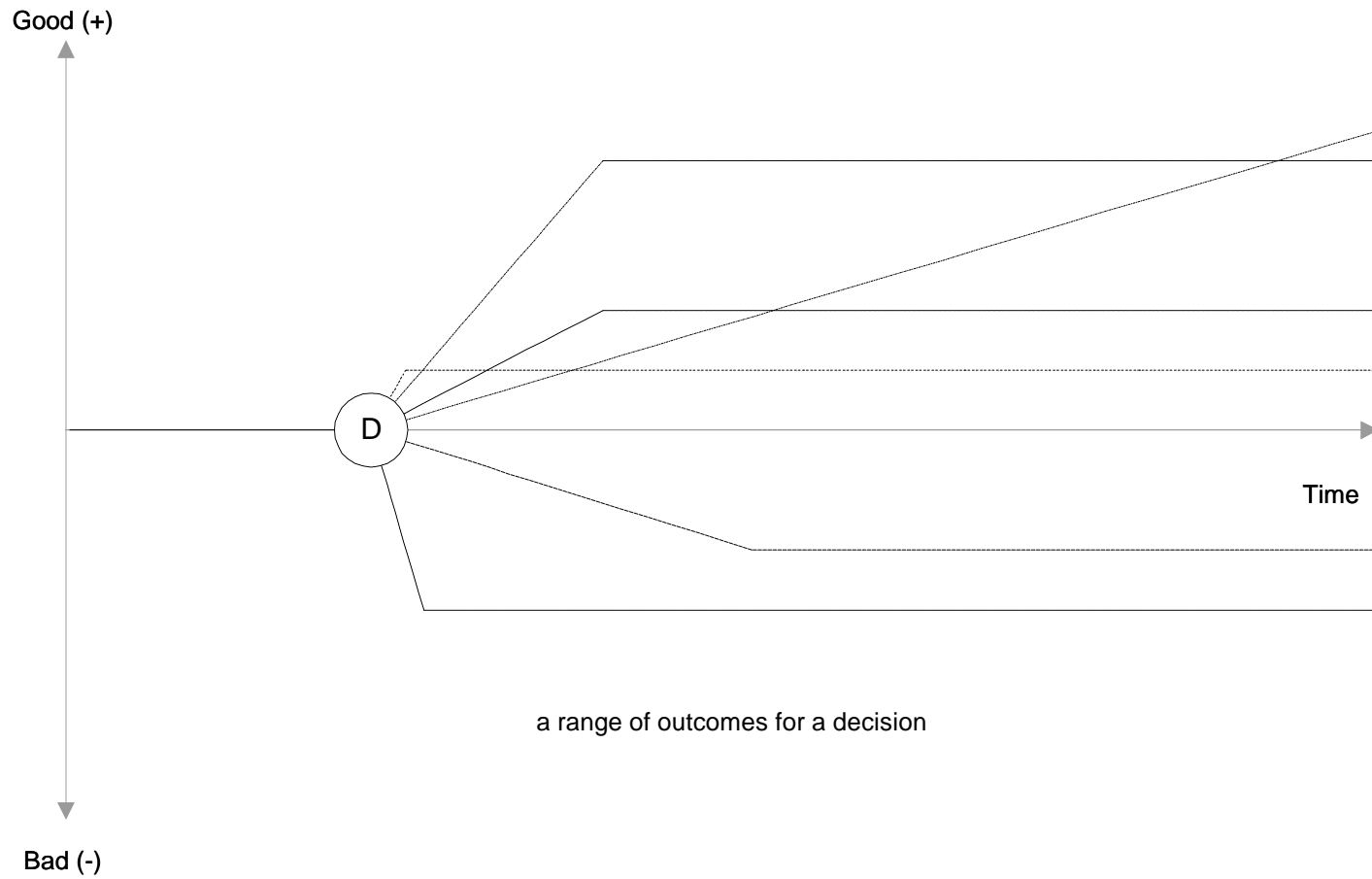


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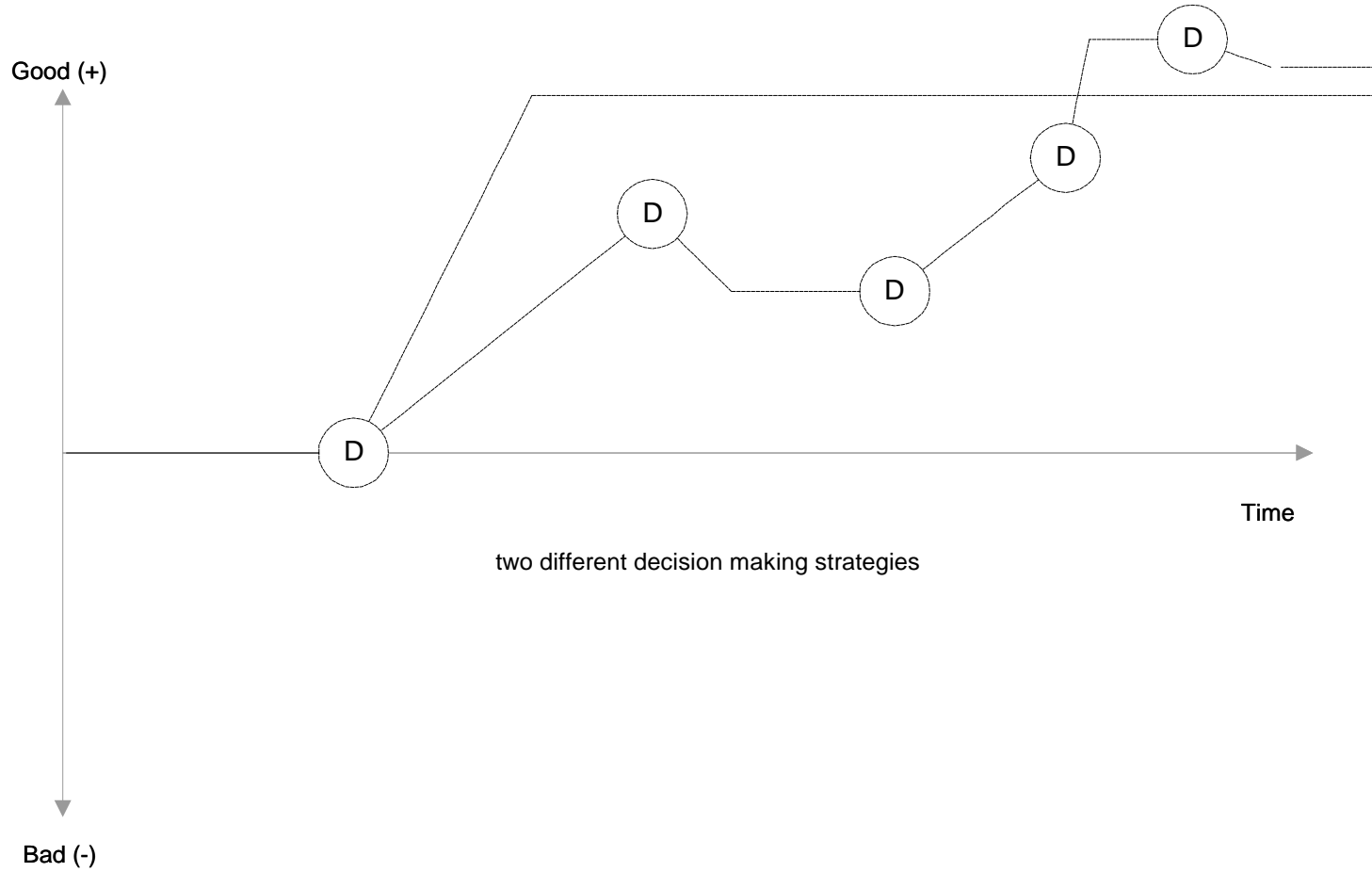
...Anatomy of a Decision...

- **Visualization of decisions (in time and benefits) may enable analysis:**
 - **Amount and realization of benefits for individual decisions**
 - **Both planned and actual**



...Anatomy of a Decision...

- **Visualization of decisions (in time and benefits) may enable analysis:**
- **Comparison of decision making strategies**
 - **Few big decisions or many small ones?**



...Anatomy of a Decision

- **In practice decision making is very difficult to discern:**
 - **Research has identified (with some difficulty) decision making in software organizations (searching of records)**
 - **Almost all decisions concern operational matters – project, features, schedules, resources...**
 - **No evidence of software process decision making**

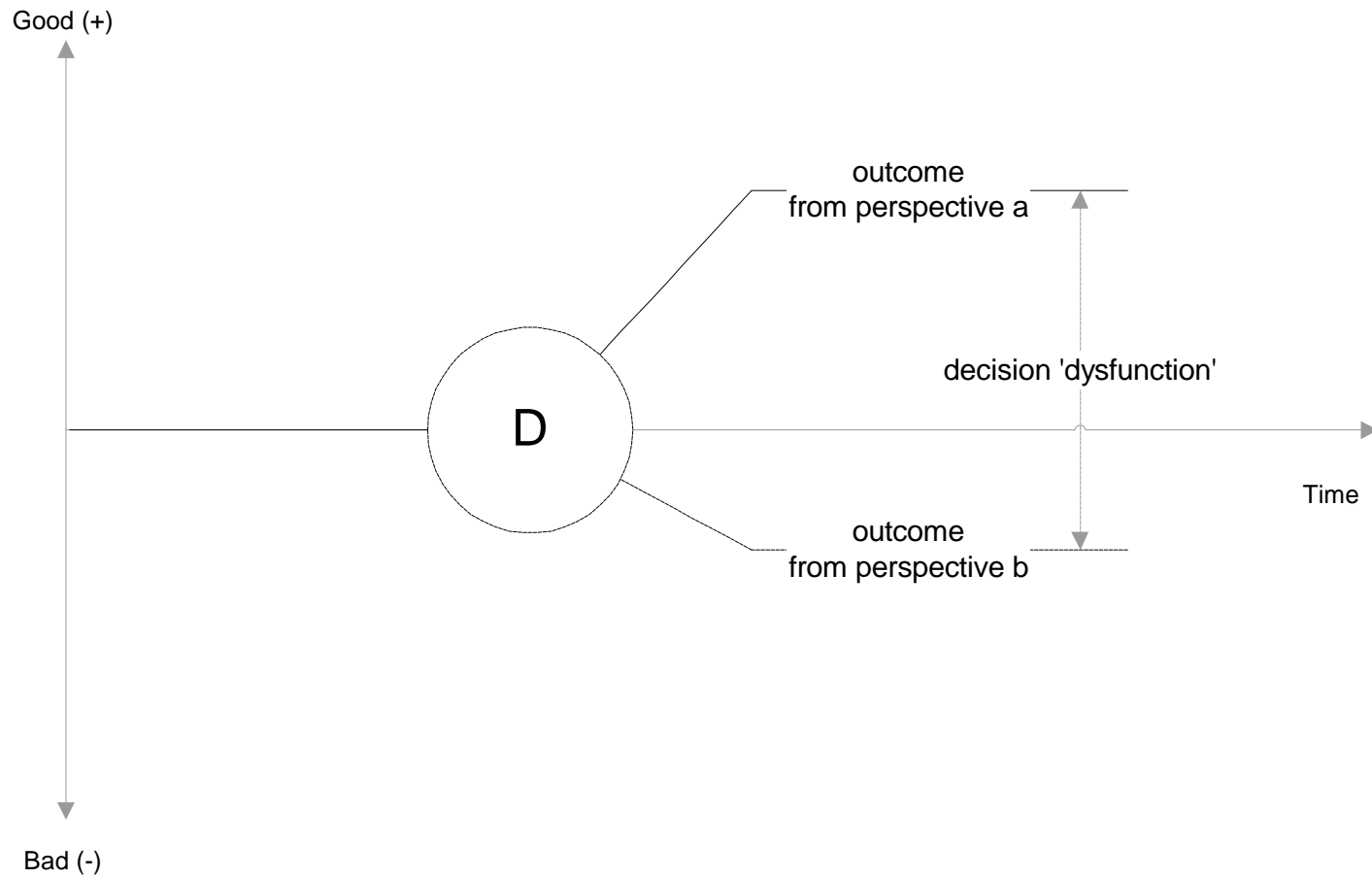
Decision Characteristics...

- **Decisions are made by people**
 - **People are influenced**

- **There are numerous decision attributes:**
 - **Made**
 - **Visibility**
 - **three levels**
 - **Constraints**
 - **no choice, this or that, what do we do?**
 - **Risk**
 - **acceptability of failure, need to explore**
 - **Individual or collective?**
 - **Wisdom of the individual? wisdom of groups?**
 - **History**
 - **“We can’t stop now”**
 - **Polarization**
 - **Mesmerized by numbers**

...Decision Characteristics...

- **Assumed that there is an outcome**
- **But the realization of benefit is viewed from a variety of perspectives**
- **Primary perspectives are:**
 1. **the decision maker(s) (WIIFM)**
 2. **the rest ('big picture')**
 - **Technical, organizational, ...**
- **Outcome is viewed from these perspectives - in effect there are a two outcomes**
- **These may not be aligned...**



Smart Decision Making: Anatomy of a Decision

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...Decision Characteristics

- **Decision dysfunction may lead to dumb decisions (by smart people):**

Type 1: “I know we shouldn’t, but....” (pragmatic)

Type 2: “I’ll probably get fired for this.” (courageous)

Type 3: “I’d be crazy not to.” (unscrupulous)

(Suggests game theory?)

Smart Decisions...

Are not dumb decisions

- **Align big picture and WIIFM**
 - **Accountable**
 - **Visible**
 - **Peers engaged**
 - **Seniors aware**
 - **With good information**
 - **In sych with context (shared values, shared principles)**

(These are environmental attributes – who determines these?)

- **Enables 'big picture' decision making undistorted by WIIFM**

...Smart Decisions

- **The decision making process:**
 1. **Share the values and know the principles**
 2. **Know the purpose**
 3. **Evaluate available information using best available analysis, numbers usually**
 4. **Make the decision (using judgement, information and intuition)**

Questions?

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