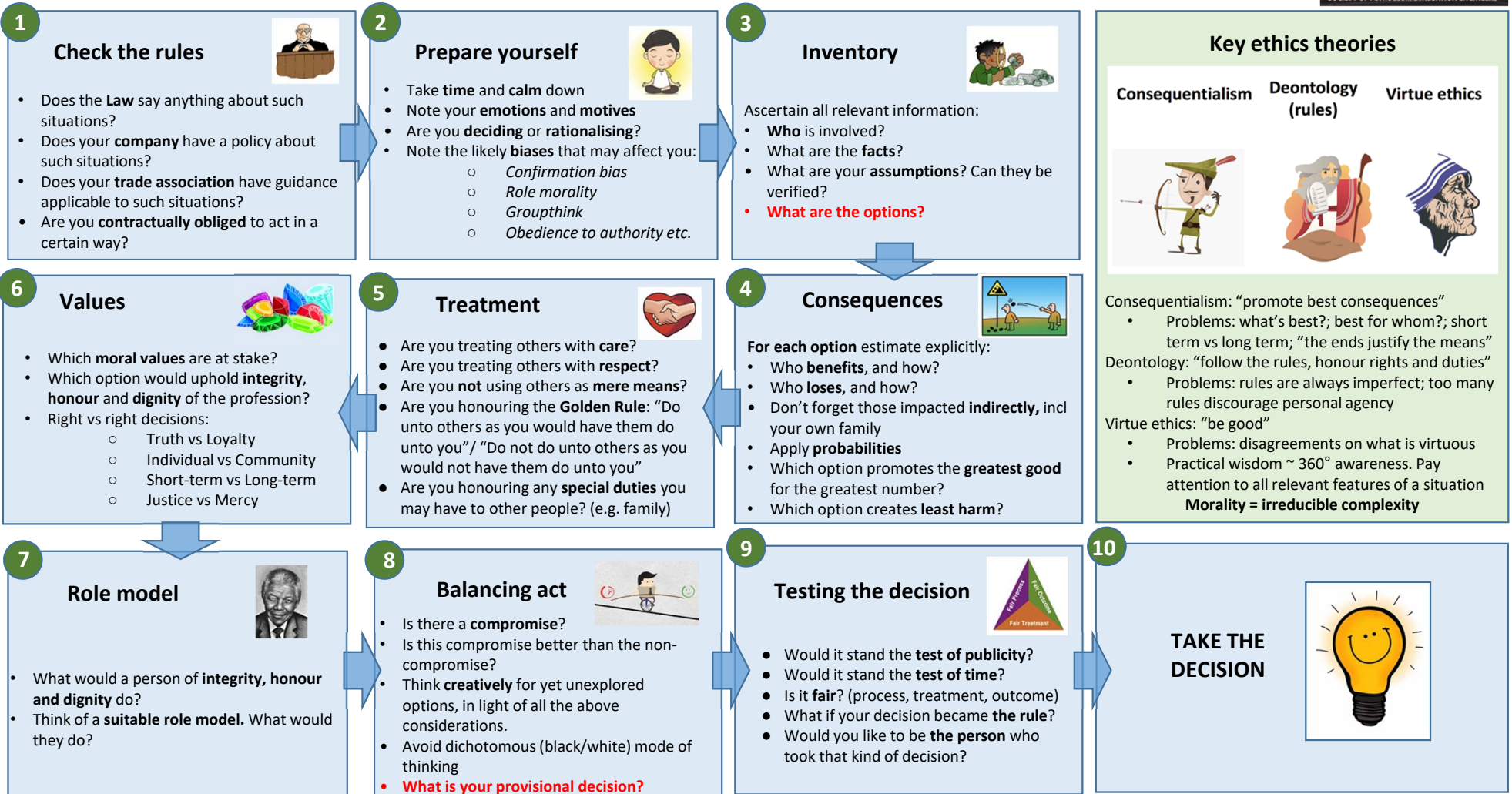


Flow chart for ethical decision making



Summary matrix for use in evaluating ethical decision



How does it fare?	Rules 1	Consequences 4	Treatment 5	Values 6	Role model 7	Final tests 9
Option 1						
Option 2						
Option 3						
Option						

Appendices

Further explanation

Further explanation: Check the Rules (Box 1)

- Many ethically difficult decisions will fall outside of the formalised rules. But it's important to make sure it is actually the case - especially in professional context.
- Apart from checking the applicable law, compliance and contractual obligations, make sure to familiarise yourself with SPEE official ethics resources, listed here: <https://spee.org/resources/reserves-definitions-committee-rdc/ethics-resources>

- More specifically,

Core resources:

- [Code of Ethics of Engineers](#)
- [Principles of Acceptable Evaluation Engineering Practice](#)
- [SPEE's Discussion and Guidance on Ethics](#)

Additional resources:

- [SPE Code of Conduct](#)
- [NSPE Ethics Resources](#) (US)
- [RAE Ethics Resources](#) (UK)

1

Check the rules



- Does the **Law** say anything about such situations?
- Does your **company** have a policy about such situations?
- Does your **trade association** have guidance applicable to such situations?
- Are you **contractually obliged** to act in a certain way?

Further explanation: Prepare yourself (Box 2)

- It's important to be in a relatively **calm** state of mind in order to think straight. If you feel too agitated by the problem, exercise your personal calming down method, such as deep breathing, meditation, physical exercise, a walk etc., first.
- However, don't disregard your personal **emotions** completely - note their content as useful **information**. Emotions may point towards what's personally at stake for you in the situation, your values and preferences. Remember the difference between ethical **justification** (reasons -> decision) and **rationalisation** (decision -> reasons). This document is meant to be an aid in the former rather than the latter.
- Check yourself against the likely **unconscious biases** that may influence your view of the situation and decision-making, such as:
 - **confirmation bias** (tendency to favor information that supports one's prior beliefs)
 - **role morality** (applying different ethical standards when perceiving oneself playing different roles)
 - **framing** (making a decision based on the way the information is presented rather than on the naked facts)
 - **groupthink** (tendency to non-critically conform to the dominant view in a group)
 - **obedience to authority** (tendency to prioritise the perceived preference of the authority)
 - **affinity bias** (tendency to be favourably biased towards people like oneself) **etc.!**
- A good intro to behavioural ethics: <https://ethicsunwrapped.utexas.edu/subject-area/behavioral-ethics>

2

Prepare yourself



- Take **time** and **calm** down
- Note your **emotions** and **motives**
- Are you **deciding** or **rationalising**?
- Note the likely **biases** that may affect you:
 - *Confirmation bias*
 - *Role morality*
 - *Groupthink*
 - *Obedience to authority etc.*

Further explanation: Inventory (Box 3)

- Map the situation as fully and objectively as possible:
 - **who** is involved?
 - **what** are the facts?
- When thinking about **facts**, make sure you distinguish them from your or other people's **assumptions** - beliefs not rooted in clear evidence. If possible, **verify** those assumptions.
- Likewise, separate facts from embedded **value-judgements**. Try to use neutral language and be as objective as possible at this stage.
- Note your **options** as you see them now. Are they all under your control or subject to external variables? Separate what you **can and cannot** influence. An option which does not depend on you is not really an option, it's a **scenario**.
- Remember that **doing nothing** (e.g. when expecting a specific scenario) is also a decision.

3

Inventory




Ascertain all relevant information:

- **Who** is involved?
- What are the **facts**?
- What are your **assumptions**? Can they be verified?
- **What are the options?**

Further explanation: Consequences (Box 4)

- Deciding the **moral merit** of a decision based on its **consequences** of some sort is the umbrella idea of consequentialist ethical theories.
- Different consequentialist theories prioritise different types of consequences (e.g. happiness, pleasure, satisfaction of preferences, profit, social harmony etc.) depending on their underlying **value theory**. So when thinking about benefits and losses, keep in mind they can be of different nature.
- Anticipated and actual consequences may differ. For the purpose of this future-focused exercise, we are talking about **anticipated** consequences. Hence carefully considering their broad range and probabilities is important.
- The idea of the greatest good for the greatest number comes from **utilitarian** ethics of Jeremy Bentham. He proposed the idea of a moral calculus, where all anticipated benefits must be added and all anticipated harms must be subtracted for the options under consideration to determine which one is best. One possible tool for such a moral calculus is proposed on the next slide.
- However, a purist utilitarian approach gives rise to multiple problems. For example, it does not take into account **the separateness of persons** - it allows to neutralise a serious harm for one with small benefit for many. This and other problems may be mitigated by applying other ethical instruments further along this document.



4 **Consequences** 

For each option estimate explicitly:

- Who **benefits**, and how?
- Who **loses**, and how?
- Don't forget those impacted **indirectly**, incl your own family
- Apply **probabilities**
- Which option promotes the **greatest good** for the greatest number?
- Which option creates **least harm**?


Moral calculus tool

Methodology

- Think of all the people who might be affected by this dilemma.
- Map out all the stakeholders, including those who might be impacted without being involved
- Then for each option, estimate for each group of stakeholders
 - a) How many stakeholders there are in the group
 - b) The degree of harm – or benefit - that will be done to them
 - c) The likelihood that this degree of harm will be done to them.
 - d) Plot up each group on the matrix below
 - e) Multiply the number of people by the score in the box

		Impact - negative			Neutral	Impact - positive		
Impact		Catastrophic	Severe	Mild		Mild	Significant	Wonderful
Likelihood								
>80%	Highly likely	-5	-4	-3	0	3	4	5
50%-80%	Very likely	-4	-3	-2	0	2	3	4
10%-50%	Likely	-3	-2	-1	0	1	2	3
1% - 10%	Unlikely	-2	-1	0	0	0	1	2
0% - 1%	Very unlikely	-1	0	0	0	0	0	1



4 Consequences 

For each option estimate explicitly:

- Who **benefits**, and how?
- Who **loses**, and how?
- Don't forget those impacted **indirectly**, incl your own family
- Apply **probabilities**
- Which option promotes the **greatest good** for the greatest number?
- Which option creates **least harm**?

Moral calculus tool (illustrative example)

Methodology

- Think of all the people who might be affected by this dilemma.
- Map out all the stakeholders, including those who might be impacted without being involved
- Them for each option, estimate for each group of stakeholders
 - a) How many stakeholders there are in the group
 - b) The degree of harm – or benefit - that will be done to them
 - c) The likelihood that this degree of harm will be done to them.
 - d) Plot up each group on the matrix below
 - e) Multiply the number of people by the score in the box

		Impact - negative			Neutral	Impact - positive		
Impact		Catastrophic	Severe	Mild		Mild	Significant	Wonderful
Likelihood								
>80%	Highly likely	-5	-4	-3	0	3	4	5
50%-80%	Very likely	-4 ¹	-3	-2	0	2	3	4
10%-50%	Likely	-3	-2 ³	-1 ⁵	0	1	2	3
1% - 10%	Unlikely	-2 ²	-1	0	0	0	1 ²	2
0% - 1%	Very unlikely	-1	0	0	0	0	0	1



4 Consequences

For each option estimate explicitly:

- Who **benefits**, and how?
- Who **loses**, and how?
- Don't forget those impacted **indirectly**, incl your own family
- Apply **probabilities**
- Which option promotes the **greatest good** for the greatest number?
- Which option creates **least harm**?

Example

- Option A (blue circles)
 - 1 person catastrophic negative impact, very likely
 - 5 people mild negative impact, likely
 - 2 people significant positive impact, unlikely
 - Total $(-4 \times 1) + (-1 \times 5) + (1 \times 2) = -7$
- Option B (purple circles)
 - 3 people severe negative impact, likely
 - 2 people catastrophic negative impact, unlikely
 - Total $(-2 \times 2) + (-2 \times 3) = -10$
- **Option A is less bad**

Further explanation: Treatment (Box 5)

- The idea of never treating others as mere means (purely instrumentally), but also as ends in themselves is a formulation of the Kantian **categorical imperative**. Kant, the central figure in deontological ethics (ethics of rules, duties and rights), argued that all people, possessing inherent **dignity** by virtue of being human, must therefore be treated with **respect**, which implies respect for their **agency** - capacity to set goals and act towards them. These must be taken into moral account even if in clash with our own.
- In this context, treating others with **care** does not imply paternalism - unilaterally deciding what's best for others - but **empathetic engagement** with others, their human situation.
- The so called **Golden Rule** of ethics can be found in various formulations in religious and secular thought traditions from across the world. It appears in both a positive and a negative formulation. It suggests to **put yourself into another person's shoes** before doing something that will affect them.
- The idea of **special duties** suggests, beyond Kantian default respect, that some people have a **right** to expect more from us than others, based on the special kind of relationship we have with them. This does not mean that we should care for some people at full expense of others, but that for some special (for us) people (for example, our family) we should go an **extra mile**.

5

Treatment



- Are you treating others with **care**?
- Are you treating others with **respect**?
- Are you **not** using others as **mere means**?
- Are you honouring the **Golden Rule**: "Do unto others as you would have them do unto you" / "Do not do unto others as you would not have them do unto you"
- Are you honouring any **special duties** you may have to other people? (e.g. family)

Further explanation: Values (Box 6)



- A moral dilemma is a situation based on a **clash** of conflicting **moral values**. This means that whichever decision will be taken, something valuable will be **compromised**.
- Larry Brown, presenting at SPEE Annual Meeting 2009, described such situations as “**right vs right**” decisions. He suggested the following typical conflicting pairs of values:
 - Truth vs Loyalty
 - Individual vs Community
 - Short-Term vs Long-Term
 - Justice vs Mercy
- Of course, there may be **other** values at stake. Try to state them **explicitly**. If you manage to **reframe** your difficult situation as a **value choice**, it may help inform your decision. It may likewise be a clash between different types of values, such as **personal, societal and professional**.
- One way to resolve a moral dilemma is to **rank** the values at stake.
- SPEE, through subscribing to the Code of Ethics of Engineers, emphasises upholding the values of **integrity, honour and dignity** of the engineering **profession** as a duty of its members. **Safety, health and welfare of the public** is another non-compromisable stated professional value.

6

Values



- Which **moral values** are at stake?
- Which option would uphold **integrity, honour and dignity**? (core SPEE values)
- Right vs right decisions:
 - Truth vs Loyalty
 - Individual vs Community
 - Short-term vs Long-term
 - Justice vs Mercy

Further explanation: Role Model (Box 7)

- The idea of using **role models** for ethical decision-making is rooted in Aristotelian **virtue ethics**. It suggests that abstract rules and principles should always be **contextualised** to a specific situation, and only an intellectually and morally virtuous (which, for Aristotle, implies experienced) person would be able to do it consistently well. Aristotle called this ability **practical wisdom**.
- It is worth noting here that for Aristotle a virtue did not mean a maximum amount of a good quality, but rather a sliding, context-sensitive **golden mean** between the vices of the two extremes - the lack and the excess. For example, the virtue of bravery resides between the vices of cowardice and recklessness.
- SPEE documents point towards **integrity, honour, dignity, honesty and impartiality** as important professional virtues (**internalised values**) for an evaluation engineer. We therefore suggest that your role model for professional ethical decision-making should possess these virtues themselves.



7

Role model



- What would a person of **integrity, honour and dignity** do?
- Think of a **suitable role model**. What would they do?

Further explanation: Balancing act (Box 8)

- A compromise here does not imply meeting every ethical demand half-way. Don't commit the **middle ground fallacy** - the truth (or morally best option) does not always lie strictly in the middle. A compromise rather means that multiple **values** are paid their **due respect** in some way. This may require **creative thinking**.
- If this and previous step have generated any **new options**, go back and subject them to rules, consequences and treatment **checks** before proceeding.

8

Balancing act



- Is there a **compromise**?
- Is this compromise better than the non-compromise?
- Think **creatively** for yet unexplored options, in light of all the above considerations.
- Avoid dichotomous (black/white) mode of thinking
- **What is your provisional decision?**

Further explanation: Testing the decision (Box 9)

- The **test of publicity** means that you would feel comfortable for your decision to appear on the front page of a popular newspaper.
- The **test of time** suggests that you try to think whether your decision is likely to stand moral scrutiny after a few years, that you would be comfortable looking back at it.
- The **fairness check** suggests to think whether your decision satisfies the demands of a fair process, fair outcome and fair treatment - whether anyone would be able to raise justified complaints on any of these fronts. Bear in mind that people may have different concepts of fairness - what's yours?
- "What if this decision became the rule" is another [simplified] formulation of the Kantian **categorical imperative**: "Act only according to that maxim whereby you can, at the same time, will that it should become a universal law".
- To finish on a dramatic note, think about whether you would like to be **the person** who took this kind of decision. This question is in spirit of Jean-Paul Sartre's **existentialism**, suggesting that each our decision (including non-decisions) defines our future selves.
- These tests could alternatively be applied to all options at an earlier stage of the process or as a "quick & dirty" moral check, in case of urgency. They are useful, but imperfect **shortcuts**. This list could be extended. You can adopt your personal **emergency rule of thumb** from the multiple suggestions in this document, meant to cover a vast and diverse moral ground.

9

Testing the decision



- Would it stand the **test of publicity**?
- Would it stand the **test of time**?
- Is it **fair**? (process, treatment, outcome)
- What if your decision became **the rule**?
- Would you like to be **the person** who took that kind of decision?

Fairness Triangle



<https://ombud.msu.edu/fairness-triangle>