

Ten Short Consequence Tree Steps to Fact-Supported Decision Making

Jen Schellinck, Sysabee, V 1.01

The following ten steps take decision makers through a concrete, explainable process that generates a “consequence tree” and results in a traceable, fact-supported decision. The steps start by defining values and goals and then continue on to define and evaluate possible worlds of choices and consequences, incorporating facts along the way in a clearly defined fashion. The steps culminate in an explainable fact-supported choice of action.

This process can be carried out by individuals, by groups working together, or by groups following a hybrid strategy where members of the group work separately and then come together at specific points throughout the process to pool their thinking. The hybrid strategy increases the amount of information and insight gained during the process, but requires more work at moments of merging and consolidating different viewpoints.

A quick first-pass version of the ten steps is intended to take roughly three and a half hours, using a “time boxing” approach in order complete the ten steps in a timely fashion. If doing the quick-pass version, it’s recommended to work through the steps in a linear fashion. However, it would not be incorrect or unusual to take multiple passes through the steps, or, given more time, to engage with the steps out of order. The process supports collecting, connecting and harmonizing different decision elements as they emerge.

The end-goal of the process is to synthesize the outputs of all the steps into a consistent and concrete “consequence tree”, which will provide insight into the most-likely-to-be satisfactory choice of action, as well as creating a decision artifact for future reference. Both the process and the consequence tree diagram approach can then be further built upon and adapted with additional practice and experience.

Step 1 – The Decision Situation (~10 Minutes)

The environment, situation or context in which you make your decision strongly determines your possible choices and outcomes. Start your decision-making process by creating a **Decision Situation Description** as follows:

Decision Situation: Write down whatever springs into your mind about your current decision-making situation and circumstances, without worrying about analysing your

thoughts. This writing activity helps frame your decision making and acts as a warm-up and reference point for the next steps.

Decision Context: Conclude this step by creating a short rough description (e.g., one to three sentences) of the current decision context – where the decision is happening as well as where any potential actions will happen. Describe what this environment is like.

For example: We’re making this decision in our small not-for-profit organization, and actions will take place somewhere in the medium-sized city where we live.

Give your **Decision Situation Description** (situation and context) a memorable short-hand name. This description will act as a starting point for your decision making.

Consequence Tree Diagram: Write this name in the appropriate space in your consequence tree diagram worksheet.

Step 2 – Values and Other Considerations (~15 Minutes)

Create a list of values, likes, dislikes, wants, needs, situations to avoid, constraints, mission statements and any other considerations that you want to keep in mind while making your decision.

Optional: Rank these in order of importance.

Step 3 – Goals and Issues (~15 Minutes)

Decision-Making Motivator: The decision-making process can be motivated by a goal you are trying to achieve, a problem you are trying to solve, a situation you are in that requires, encourages or motivates change, or a question you are trying to answer.

Using your Decision Situation Description for inspiration, describe the motivator of your decision-making process. In some cases there might be multiple motivators at play, but try to be as focused as possible in your description. “My decision motivator is...”

Goal Description: Describe your goal more specifically. If you have described your motivator in the form of a problem, situation or question, take a moment to reframe the motivator as a goal (i.e. “My goal is to solve the following problem...”, “My goal is to successfully navigate the following situation...”, “My goal is to answer the following question...”)

Goal Rating: If you have listed more than one goal, rank your goals in terms of priority. The top-rating goal will be referred to as your **main goal**.

Give this main goal a memorable name.

Step 4 – Start Your Knowledge Bank (~15 minutes)

Using your **Decision Situation Description** for inspiration, start your knowledge bank by adding a preliminary bullet point list of facts - true statements - that describe your current situation. These facts could be personal (about you) or could be more about the nature or context of the decision you are making. You'll add more facts to your knowledge bank as you proceed through the rest of the ten steps.

If a fact is causal in nature (suggesting a cause-and-effect relationship of some sort), consider writing it as an IF... THEN ... statement (e.g., IF I buy a sandwich THEN I will have spent some of my daily lunch allowance).

If there is uncertainty about a fact, consider writing it to reflect that – e.g. “There’s a chance that one of the muffins is a blueberry muffin”.

Note any evidence, support, references or origin information you have for a fact in brackets after the fact.

In cases where you have no references or supporting evidence for a statement, note if you are treating the statement as an opinion or as an assumption.

Opinions, (hypotheses) are statements that you believe to be true but don't know for certain to be true. Assumptions are statements that may or may not be true, but that you will *assume* to be true for purpose of this decision exercise. A statement can be an opinion or an assumption at the same time.

Knowledge Gaps: Are there any obvious gaps in your knowledge of the current situation? Consider filling in these gaps either by gathering additional facts, or by adding hypotheses or assumptions.

Step 5 – Possible Choices of Action (25 minutes)

Possible Action Brainstorming: Starting from your Decision Situation Description, make a list of five to ten possible **first-step actions** you could take. More is better.

Ask yourself: “Given the current situation, what could I do next?”

Your first-step action descriptions should be fairly detailed (two to four sentences at least), well fleshed out, and could include multiple components. Each first-step action should be

a stand-alone action, complete in and of itself – i.e., if you were to take this action, you wouldn't need to take any of the other first-step actions in addition to this action in order to make it complete. This means that some first-step action descriptions might contain the same activities as other first step actions.

Example of actions that are stand-alone actions (aim for this):

Action 1: Buy a cheese sandwich and a green tea (and nothing else).

Action 2: Buy an egg salad sandwich and a coffee (and nothing else).

Action 3: Buy an egg salad sandwich and a cheese sandwich and a coffee (and nothing else).

First-step actions should not be the same as your goal. For example, if your goal is “Buy a nice house where I’m happy,” don’t make “Buy a nice house where I’m happy,” as one of your first-step actions.

First-step actions should largely be consistent with the known facts of the situation. For example, if the coffee shop doesn’t offer cheese sandwiches on its menu today, then “Buy a cheese sandwich from the coffee shop” likely shouldn’t be a major focus of the actions listed. That said, in the absence of information, or the absence of certainty, consider erring on the side of including some first-step actions that may not seem to be possible, or seem unlikely to be feasible. Actions can be adjusted later if new information becomes available, and this avoids narrowing down options for action prematurely.

Describe the action, not the outcome or consequences of the action. Outcomes will be described in a later stage.

The list of possible first-step actions should include some actions that you might want to take, some actions that you don’t think you want to take, and even some actions which go against your values and other considerations but in theory could be taken. Be creative! Try not to censor your possible actions at this stage. Note in brackets after each action if you like the idea of taking it or dislike the idea of taking it.

If you’re having a hard time creating enough different first-step actions, try creating more by starting from one of your existing first-step actions and adding in details that split the action into multiple distinct, stand-alone actions.

Favourite Choice of Action: Note the first-step action that is the most emotionally appealing to you right now. Don’t think too hard about this – just note the one that you are immediately drawn to.

Select Three First-Step Actions for Exploration: Reviewing your list of possible first-step actions, pick three first-step actions to explore more deeply. These might be three actions that you think are importantly different from each other, three actions you think are most

promising, three actions that have different probabilities of being executable, or you may choose different selection criteria. Write down your selection criteria as well as the actions themselves.

Give each first-step action a memorable name.

Consequence Tree Diagram: Write these names in the appropriate space in your consequence tree diagram worksheet if you are making a consequence tree diagram.

Hybrid Group: If you are carrying out this process as a group, start by comparing and/or merging your individual lists of possible actions first, and select three from this larger pool of choices. Each person can write these on their own consequence tree diagram.

Step 6 – Action Facts (15 minutes)

Add to Knowledge Bank: For each of the three first-step actions, consider the objects and actions (nouns and verbs) in the descriptions of the action.

Add facts about the objects and actions you have identified to your knowledge bank.

For example, if you're deciding what to eat for lunch, and one of your choices of action is to eat half a cheese sandwich now and store half a cheese sandwich for later, you could add nutrition facts about cheese sandwiches, as well as food storage facts about how to safely store cheese sandwiches for future eating.

If a fact is causal in nature (suggesting a cause-and-effect relationship of some sort), consider writing it as an IF... THEN ... statement.

In brackets after the fact, note any evidence, support, references or origin information you have for this fact, or if you don't have any of these, note if it is a hypothesis (opinion) or assumption (or both).

Are there any obvious gaps in your knowledge of the current situation? Consider filling in these gaps either by gathering additional facts, or by adding hypotheses or assumptions.

Step 7 – Possible Outcome Scenarios (20 minutes)

Using the facts in your fact repository for inspiration and support, for each of the three first-step actions you're considering, create at least one positive and negative **outcome scenario** for that action (future steps will assume you have one positive and one negative scenario, so if you create more scenarios, select just one positive and one negative scenario to work through first).

As the name suggests, a positive outcome scenario should have more positive than negative aspects to it, although there could be some negative aspects. A negative outcome scenario should have more negative than positive aspects to it, although there could be some positive aspects.

To create an outcome scenario:

- For the action being considered, ask yourself “IF I take this action, THEN... what happens next?” IF... THEN statements in your knowledge bank may help with this.
- Write four or more statements that describe possible results of the action, including potential side-effects or knock-off effects of the action. Describe the results as if they will actually happen (i.e., “I enjoy the sandwich.” rather than “I might enjoy the sandwich.” or “I could enjoy the sandwich.”)
- Create a full description of the scenario in the form “I take the following action... AND THEN the outcomes and side-effects are....”
- Give the description of the scenario a name that is memorably different from all of the other outcome scenario names.

Hybrid Group: If you are carrying out this process as a group, start by individually creating your own positive and negative outcome scenarios. Then compare outcome scenarios across your group and select one positive and one negative outcome scenario across this larger pool of choices.

Consequence Tree Diagram: Write the outcome scenario names in the appropriate space in your consequence tree diagram worksheet if you are making a consequence tree diagram. Note whether the scenario is positive or negative in the appropriate space.

Step 8 - Outcome Scenarios Key Facts (30 minutes)

Out of all the possible outcome scenarios, there can be only one actual outcome scenario - the scenario that actually comes to pass once action is taken.

You are currently considering two outcome scenarios (one positive and one negative) for each of the three first-step actions, for a total of six outcome scenarios. In this step you will consider available evidence in order to assess which of these possible scenarios are more or less likely to be the actual scenario.

To do this, use the facts and other information in the knowledge bank for inspiration to make the following two lists of key facts for each of these six outcome scenarios. You will end up with two lists per scenario, for a total of twelve lists across all scenarios:

- **List of Scenario Strengthening Facts:**

- List at least three “strengthening facts” – supporting facts that suggest that the outcome scenario is likely to occur if the action is taken. (If there are more than three facts readily available, pick the three most supporting).
- For each strengthening fact, describe how the fact makes the Outcome Scenario more likely to occur. The fact should be connectable to something specific in the Outcome Scenario.
- If a fact is consistent with the scenario but not strongly connected to it, replace it with another more connected fact.
- Taking all of the strengthening facts into account, rate the likeliness of the scenario out of ten, with a ten indicating a lot of extremely substantial evidence that this is a scenario that is likely to happen, and a one indicating barely any substantial evidence that this is a likely scenario.

- **List of Scenario Weakening Facts:**

- List at least three “weakening facts” that oppose, go against, contradict, are inconsistent with or reduce the likeliness of the Outcome Scenario. These facts should provide evidence that the scenario is unlikely to occur if the action is taken. (If there are more than three facts readily available, pick the three most undermining).
- For each weakening fact listed, describe how it opposes, goes against, contradicts, is inconsistent with or reduces the likeliness of the scenario. The fact should be connectable to something specific in the Outcome Scenario.
- If a fact is disconnected from the scenario, replace it with a different fact.
- Taking all of the weakening facts into account, rate how unlikely the scenario is out of ten, with a ten indicating a lot of extremely substantial evidence that this is an unlikely scenario and a one being barely any substantial evidence that this is an unlikely scenario.

Overall Likelihood Rating: Subtract the weakening facts rating from the strengthening facts rating to get an overall scenario likelihood rating. If the rating is equal to or greater than positive four, name the scenario as likely. If the rating is equal to or below negative four, name it as unlikely. If the rating is between positive and negative four, name it as uncertain.

If many or all of the six scenarios are either unlikely or uncertain, consider changing the Outcome Scenarios and/or gathering more relevant facts. Then repeat the rating exercise for the any new scenarios plus any new facts lists.

Hybrid Group: Pool all facts lists and pick the five most supporting and five most undermining facts before carrying out the rating together.

Consequence Tree Diagram: Write these ratings and names in the appropriate spaces in your consequence tree diagram worksheet if you are making a consequence tree diagram.

Step 9 – Outcome Scenario Quality (15 minutes)

Goals and Values Consistency: Review each of the six Outcome Scenarios and consider how the scenario aligns with your main goal, other goals, values, mission statements, likes, dislikes, wants, needs, situations to avoid, constraints, and any other considerations that you are keeping in mind.

Name the scenario descriptions as follows:

- **Great outcome:** high alignment with goals, values and other considerations – very desirable.
- **Okay outcome:** some alignment with goals, values and other considerations – somewhat desirable.
- **Neutral outcome:** not much alignment with goals, values and other considerations but doesn't actively contradict them. Not particularly desirable or undesirable.
- **Unfavourable outcome:** goes somewhat against some goals, values and other considerations and is somewhat undesirable but still falls within the reluctantly acceptable range.
- **Bad outcome:** goes substantially against some goals, values and other considerations and is strongly undesirable. This outcome is barely acceptable.
- **Unacceptable outcome:** fails to meet goals or goes against values and other considerations to an unacceptable extent.

Hybrid Group: Compare your quality ratings across the group and harmonize these ratings so that each Outcome Scenario has one rating.

Consequence Tree Diagram: Write these names in the appropriate spaces in your consequence tree diagram worksheet if you are making a consequence tree diagram.

Step 10 – Evaluate First-Step Actions (15 minutes)

Choice of Action Evaluation: Going back to your three first-step actions, add a name to each of the three first-step actions as follows, based on your evaluation of their connected Outcome Scenarios' likeliness and quality:

The “No-Brainer” Choice

Are there any first-step actions where the positive Outcome Scenario is likely and desirable, and the negative Outcome Scenario is unlikely and acceptable even if it does happen? Circle these actions, indicating that they are good candidates for action.

The “Best Avoided if Possible” Choice

Are there any first-step actions where the positive Outcome Scenario is unlikely and the negative Outcome Scenario is both likely and barely acceptable or entirely unacceptable? Put a line through these actions, indicating that they are bad candidates for action.

The “Some Risk, Some Reward” Choice

Are there any first-step actions where the positive Outcome Scenario is likely and the negative Outcome Scenario is also likely? In this case, consider if it’s possible to adjust the choice of action to make the positive Outcome Scenario more likely and the negative Outcome Scenario less likely.

The “Mystery Risk, Mystery Reward” Choice

Are there any first-step actions where either the positive Outcome Scenario or the negative Outcome Scenario (or both) are low-evidence? Here there is a “mystery risk” due to lack of knowledge. Place a question mark beside the action and consider trying to get more information in order to move the action out of this category. If the negative Outcome Scenario is at worst unfavourable, consider risking the action and using this as a learning opportunity.

Consequence Tree Diagram: Write these names in the appropriate spaces in your consequence tree diagram worksheet if you are making a consequence tree diagram.

Emotions vs Evaluations: Compare your now categorized choices with your earlier favourite choice of action. Is there alignment? Has your perspective changed as a result of thinking through the outcomes along with the available facts about the decision situation? If you are still drawn to your favourite choice of action, and it doesn’t line up with the best choice of action suggested above, take a few minutes to consider this disconnect. Consider getting a trusted outside opinion on the matter to help you navigate this conflict between your “gut” and your “mind”.

Now It’s Time to Take Action!

Now make your choice, and take action, OR if you don’t feel ready to make a decision, do another iteration of these ten steps to further expand upon your thinking.

Once you’ve taken your action, you will find yourself in a new context, which may include achieving the goal that you set out to achieve. If not, you can repeat this process using your new context as the starting point for your goal.

Bonus Step – Evaluating the Decision: After you’ve taken action and experienced the outcome, evaluate your decision outcome and consider how your decision process was reflected in the outcome.