# EP 25 - A Forest of Decision Trees

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WITH IT episode notes

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I recently caught up with a friend coping with the aftermath of a difficult situation. We got to talking about decision trees as a model for the complexity of that situation. It helps to frame the challenges faced, and provide deeper context to the end result. On today's episode, I'm expanding my thoughts on this mental model, in the context of past events, potential future ones, and handling projects & processes.

- There are lots of places where a decision tree model can aid us, but on today's episode I want to focus on three:
  - 1. Past Events

- 2. Potential Opportunities
- 3. Projects & Processes

### **1. Past Events**

- After an event has occurred, it's natural to revisit decisions that were made. To explore other potential outcomes.
  - This can often result in critical learnings that help us perform better in future situations
  - But there's a flipside, where we can get stuck in a spiral of 'woulda/coulda/shouldas'
- There's a wide variety of situations that can use this model:
  - After-action report from a project performed in the field
  - Navigating advocacy for a family member going through a difficult medical issue
  - Doing a root-cause analysis for a business outcome
    - Typically this gets applied for negative issues that need resolution, but you can use the same logic to get to the reasons some process or technique worked.
    - Even the very name root-cause analysis lends itself to the metaphor of today's episode
- Consider viewing all of the potential outcomes as the leaves at the ends of various branches of the decision tree.
  - The outcomes might be binary (A or B), or extremely complex with hundreds of different permutations or scales of success/defeat.
- The base of our tree becomes the inciting event: The start of our path along the decision process.
  - Consider how the tree was seeded: What environment caused the tree to sprout in the first place?
  - What decisions in the short & long term affected the shape of the tree, i.e.: the branches available to you as you approached its base?

- Think about how you climbed the decision tree:
  - Was the weather clear, allowing you to see the entire tree? Or did it limit your view to only what was right in front of your face?
  - Did you have the energy & grip to climb properly? For example: Were you sleep-deprived, distracted by other issues going on in your life?
  - Did fear hold you back from going out on a limb?
  - It could be that some combination of fear, time pressure or external forces put you out on that limb before you could choose to go there?
  - Did you navigate the tree by going with the grain? Sticking to policies, procedures, or default-advice by trusted experts? Or your own habitual patterns?
  - Furthermore, did you stick to the larger, sturdier, less risky branches for longer or shorter than you could have (or should have?)
- Next, consider the actions, influences & environment from outside, which affected your ability to navigate those decisions.
  - Did others lob off branches, preventing you from ever accessing the potential results along those branches?
  - Were there intermediate decision gates that had to occur before you could make progress (such as the approval of a project deliverable, test results, or specific resources to become available)
  - Sudden events, or storms like these can knock off branches, leaving you with fewer options
- Consider the possible outcomes:
  - It's likely you'll be unable to truly know the options on branches down paths you didn't (or couldn't) explore.
  - But of those you can see or infer as possible outcomes, was there:
    - I optimal solution?
    - Multiple suitable solutions?
    - No good results?

- A few results less bad than the others?
- You can't underestimate the importance of evaluating the possible solutions of the decision tree before you can judge your navigation of it!
- For some people, there is an insatiable desire to fix/solve for X they will leave no stone unturned in their quest for an optimized path along the tree, or finding the best possible solutions
  - Can lead to chastising themselves for not finding it
  - But there are some cases where this is impossible, which is a loss of control that can make us feel a wide range of emotions: Anxiety, anger, frustration, and/or build empathy for others facing similar challenging trees
- Why this exercise can be helpful after the fact:
  - It can help come to terms with your own decision making
  - Done regularly, you can begin to see patterns of thought and/or action: Great feedback that can help you start modifying for more successful outcomes in the future
  - Put another way (and I'm admittedly abusing my metaphor using this idiom) -Doing this can help you see the forest for the trees: Where you can better see & understand a situation in its entirety without being preoccupied in the lesser details.

# 2. Potential Opportunities

- In this case, the model of the decision tree helps us to understand how we plan to react to specific situations or opportunities. I'll give two examples:
  - When faced with an employment opportunity:
    - What are the main branches you use to decide if it's worth pursuing? (location, impact on family, salary, commute)
    - Along those branches, what lesser decisions get made to put you in an optimal position to choose?

- Learning from others' experiences:
  - When hearing someone else's experience, do you ask yourself what you would have done if faced with a similar situation?
  - Are there key takeaways, lessons learned, or preventative actions that you can absorb now so you're better able to face similar situations in the future
- Trees should be kept at an optimal health whenever possible
  - Overgrowth has a negative impact on both tree & those affected by it
  - Makes it harder to navigate the tree when the time comes
  - It can cast too much shade on those around you especially important if they're to follow or aid you
  - Remain vigilant of people and/or situations who can poison or destroy branches, or even the entire tree
- This is where the concept of pruning can be helpful. Pruning creates better conditions for long-term growth
  - It simplifies the possible paths & our navigation of them
  - It's a conscious act that when done regularly, helps us remain clear on our principles, strategies, and goals.
  - We're left with decision trees that are shaped to our core beliefs, talents, and preferences
  - And it puts us in a better position to give aid to those who call on us for help
  - Yet there will always remain elements of organic growth, and unpredictable storms of life, which create a need for repeated pruning with new perspectives.
- With this concept of pruning in mind, let's look at this idea of decision trees aiding us with projects and processes.

# 3. Projects & Processes

- Consider the key elements of a successful (or failed) project or process:
  - It's good to define all foreseeable successful outcomes

- What negative outcomes are possible?
- What path(s) will most likely lead to (or avoid) each of those outcomes
- Which branches are weak, but important: They'll need shoring up to support the weight you'll be putting on them
- Which branches are weak, but distracting: Can the decision tree be pruned to help you and/or your team avoid that path?
- How defined are the parameters of your decision tree?
  - Are decisions well-defined? Well-pruned?
    - Side note here: I'll use decisions, but other terms for this could be stages, gates, deliverables, review points, phases, etc...
    - For projects & processes these nodes are mostly places where a branching occurs in your tree, i.e.: A decision is made.
  - What quantity of decisions make up your tree? How complex is it?
  - Are there gaps in your understanding of the environment, organizations, or your team's abilities that cloud your navigating abilities?
  - Are there opportunities to affect root causes which can create better outcomes more reliably?
  - What tools & assistance will you need to properly navigate your project or process?
- Also consider the variation possible within those parameters:
  - How much detail and/or patience is required to properly prune it?
  - How much time do you have to prune?
    - If it's urgent, you might have to rely on instinct & discernment to recklessly climb to the best outcome you can. Really go out on a limb
    - Or do you have the time to prune diligently, ensuring a greater probability of success and/or repeatability of results.
  - How strong do your tools, techniques, and/or organizational authority need to be to prune the decision tree?

- The perspective needed to take the entire tree into context to ensure pruning leads to the best long term health of not just the tree, but the company, environment, and those who rely on it
- To prune all this down into a simpler statement: Are you right-sizing your decision processes to the scope & complexity of the project or process?
- I'd like to close with a quick exploration of this idea using 3 trees as examples, related to an organizational process
  - The Bonsai:
    - Small in stature, but requires a finely-honed touch for proper care.
    - Diligence, skill, and patience are all required for it to continue to function to its full potential
    - A good analogy for evolving processes over time: Starting with a basic shape in mind, and methodically pruning it into the desired shape.
    - Regular attention but taking small, measured tweaks resulting in a wellhoned process that tightly aligns with your vision
  - The Sequoia:
    - Massive behemoths that have preceded our tenure with the organization or project, and will likely go on far after we've left.
    - Underneath the surface, these massive systems can form interconnected systems
    - There are some branches, but they are mostly trunk: Very efficient processes that can help you rise high above other trees. They have a repeatability and predictability that's comforting. Yet it's a straight climb to the top, with few options to branch off and explore new alternatives.
    - You can't cut them down (or even prune them) without a public outcry or assigned authority that can be very hard to get.
    - Relate these to large organizations with highly-defined processes or "red tape"
  - The Live Oak:
    - Cover a wide breadth with its plentiful, complex series of branches.

- The tree looks very different from different angles.
- They are usually left to grow on their own, unpruned. That growth is a function of not just its DNA, but its environment and the actions of those interacting with it. Each tree evolves in a unique way
- The key to growing big is balance: Its branches can't pull the tree too far to one side or it'll collapse or get knocked over easier. Diversifying the branches around the tree help to support the entire organism (I mean organization a)
- Once you find the right branch, it's possible to spend lots of time on it. The trees' wide structure allows for diversity of opinions, independent research, and unique solutions to evolve.
- But it can look confusing, even crazy to an outsider. Coming in from outside, it can be tempting to aggressively prune, making these easier to understand and more streamlined. But when you do it, the magic is often lost.

## **C** Episode 25 Quote:

Today's quote comes from Chapter 4 of the book The Extended Mind by Annie M. Paul

Nature has the capacity to awe, making us feel smaller and to expand our concept of possibility - in direct contrast to viewing the world through the lens of a phone.