Let's be logical about this.

A decision-making model can make your decisions more informed, inclusive, and unbiased: personally, professionally, and politically.

Brought to you in gratitude for the platform at FWD50 2021, at which we could discuss "Big Data Democracy," "Big Data Debate," and logical decisions at the local level. Enjoy!
About Us

The Society Library is a 501(c)3 U.S. collective intelligence nonprofit working on knowledge systems and digital public infrastructure to make "big data democracy" possible in the 21st century. The Society Library specializes in the logical deconstruction of media and in mapping societal-scale deliberations. We also provide various educational offerings and research services. If there is a way we can serve you in a mission-aligned way, please do not hesitate to contact us. Learn more at SocietyLibrary.com/services.

About Decision-Making

Human beings can be illogical when drawing conclusions, biased when making judgements, and overwhelmed with too much complexity when trying to sort fact from fiction. We develop mental heuristics to quickly make sense of issues in the black-box of our minds, but this leads to reasoning errors. There are many ways in which we can augment our intelligence and decision-making, and even simple tools like weighted pro/con lists can help externalize our thought processes and enable more methodical decisions. This document is a step-by-step guide to show you how you can make more informed, inclusive, and unbiased decisions with only a pen, paper, and a simple process to follow. We hope you will enjoy this guide and we welcome your feedback on this document.

Our Recommended Reads

> David McRaney's new book "How Minds Change"

David McRaney has recently joined The Society Library advisory board due to his incredible expertise in reasoning, decision-making, and information processing.

> Daniel Kahneman's "Noise: A Flaw in Human Judgement"
How to Make a Model

General Overview

**Step One:** Set the stage and find the fundamental question

**Step Two:** Identify stakeholders

**Step Three:** Gather and organize intelligence

**Step Four:** Make a pro/con list (weighting optional)

**Step Five:** Micro-vote to see how strongly you agree with arguments on one side vs. another.
Step One:

Set the stage and find the fundamental question

What is the question you are trying to answer? Is it a "yes or no" question? Or is it an open-ended question?

This document is to help you make a decision by weighing pros and cons, or said another way, weighing the supporting and refuting arguments and evidence on an issue. This model works best on questions that are "yes/no," or binary.

So, if the question you are looking to answer is instead an open-ended question, then conduct a brain-storming session to generate possible options (you can still follow steps 2 and 3 to assist with this). Then create a pro/con model for each of the options that you generate. You may then compare both how much you know about each of the options and compare the strength of your micro-vote on each option. See the final page for more resources on how to make various kinds of decisions using different models and strategies.

Examples of questions:

"Yes/No" Questions
1.) Is it a good idea to date my best friend?
2.) Should I skip taking a vacation this year?
3.) Should I bring this issue up to my boss?

Open-Ended Question
1.) Which school should my child attend?

In the case of the "open-ended question," generate answers and then create a yes/no question out of each of the answers.

For example:

a.) Should my child attend Middleton Elementary?
b.) Should my child attend Smallville Elementary?
c.) Should my child attend Grandecity Elementary?
Set the stage and find the fundamental question

As a part of "setting the stage" not only are you identifying the fundamental question(s), but you are also going to identify the immediately obvious answers/options/positions you have or could take, and clearly write those out.

Examples of positions/answers/options:

Is it a good idea to date my best friend?

- Position One: It is a good idea to date my best friend
- Position Two: It is not a good idea to date my best friend
- Position Three: I do not have enough information to know if it is a good idea to ask my best friend!

Should my child attend Middleton Elementary?

- Position One: Yes, my child should attend Middleton Elementary
- Position Two: No, my child should not attend Middleton Elementary

Should my child attend Smallville Elementary?

- Position One: Yes, my child should attend Smallville Elementary
- Position Two: No, my child should not attend Smallville Elementary

Should my child attend Grandecity Elementary?

- Position One: Yes, my child should attend Grandecity Elementary
- Position Two: No, my child should not attend Grandecity Elementary

**ACTION TO TAKE:** Once you have identified your question(s) and the immediately obvious positions/answers/or options you have, literally write them down on a piece of paper or in a doc file (as shown above) and then move on to Step Two.
Step Two:

Identify stakeholders

In order to make your decision more informed, inclusive, and unbiased, it’s important to identify all the stakeholders of the decision so that you can gather their input. When thinking of stakeholders, imagine: (1) who will be affected by this decision? (2) who has insight or could provide information on this subject? (3) who has something to say about this issue?

A stakeholder may not need to be directly tied to your question, but may just be generally tied with an issue or topic that is related to your question. For example, a school board member may not have a stake in what school your child goes to, but they may be able to provide useful insights and expertise to factor into your model, since they have a stake in the education of children generally.

One way to identify stakeholders is to look at the nouns in your question. In the case of the example above, the nouns are "(my) child" and the name of one of the schools. You should consider who the stakeholders are for each of those two entities. For your child, that may include your spouse or any family members who are involved in the education of the child (like taking the child to school, for example) and your child themself. For the schools, stakeholders may be the school board, teachers and coaches, or the principal.

ACTION TO TAKE: Underneath your question(s) from Step One, write down and answer the following questions to get your "stakeholder list."

1.) What are all the subjects or "nouns" in my question? (people, places, things)

2.) Who will be affected by this decision?

3.) Who has insight or could provide information on this question? (Look especially at all the subjects mentioned in Question 1. above. You can even think of friends, family members, and experts as people who could help provide insights to you or about you if you are one of the stakeholders)

4.) Who has something to say about the issue? (Again, consider this question with the subjects mentioned in Question 1. in mind)

Consolidate all of these answers to these questions in order to make your stakeholder list. Write down all of these stakeholders and move to Step Three.
Step Three:

Gather and organize intelligence

It’s time to start gathering information about the issue and all stakeholders. The goal is to be inclusive. At the Society Library, we look for information in various places:

- Books, Textbooks, Essays
- Podcasts, Videos, Documentaries, TV
- Interviews, Surveys, Focus Groups
- Scholarly Works, Expert Consultations
- Websites, Blogs, Social Media
- Government Reports and Legislation
- Memes, Images, GIPHYs
- News and other web media content

Depending on your question, you may also want to search through these media types. Following the example about where to send a child to school, you may want to search the internet for websites that give advice to parents about what to ask principals regarding school performance. You may want to do a deep dive in scholarly literature about new learning modules for early childhood development. You may want to listen to a few parenting podcasts or just ask some other parents in the neighborhood.

During this process of searching for materials, you can generalize your search queries to get more diverse answers. So instead of entering "Should my child attend Middleton Elementary?" into Google search, inquire "What should parents consider when choosing an elementary school?" Review as many sources as you have time for. You can also ask the stakeholders you’re interviewing what questions you should be asking, what is important to know about this topic, and who else you should be talking to.

Regardless of how much or what kind of content you select to draw intelligence from, it is important to keep a concrete record of the information you are factoring into your decision. Save the URLs or create a cited list of the reference materials. If you are having conversations or conducting interviews, ask if you can record the conversation so that you will get all the details right. If they are uncomfortable with this, then take notes during the conversation and review your notes with the interviewee after the conversation has concluded so you can be sure you heard and understood them correctly. Your memory is imperfect and it will change over time, it’s very important to keep a concrete record of the information you are hearing/reading. To learn more about memory biases, refer to this list.

ACTION TO TAKE:

1. Collect topic-related content from the web, library, or people
2. Create a record of this content, including URL lists, a folder of recorded conversations, etc.
Step Four:

Create a Pro/Con List

Once you have a set of materials (interviews with friends or experts, a list of websites, etc.) to collect information from, now it is time to pick out the "main reasons" in the content that you have gathered. These main reasons can be facts, opinions, arguments, or pieces of evidence that support one of the positions/answers/options to your "yes/no" question. List these reasons under each of the positions, as seen below:

For example:

Your child SHOULD go to Middleton Elementary because:
1.) They have a wonderful after-school musical program
2.) They serve great quality food at lunch
3.) They have after-school sports teams
4.) They have a strong anti-bullying culture at the school

Your child SHOULD NOT go to Middleton Elementary because:
1.) Middleton Elementary is a long distance away (you don’t want your child to take the bus)
2.) They are a B-rated school for their core educational offerings

Once you have this list, it’s time to go through all of the reasons, put them into groups, and "argue against" them, if there is a valid counterargument to consider.

For example, perhaps it does not matter if Middleton Elementary serves great quality food at lunch, because your child brings bagged lunches every day. Inputting this "con" to the "pro" on "the topic of good quality lunch," will help you choose intentionally to consider and potentially disregard superficial reasons which may cloud your judgement, but are ultimately irrelevant. Essentially, by forcing a micro-vote on these small issues, you are making a more conscious decision on whether or not this reason is relevant to give weight to.

So, you could restructure your list like this:

Your child SHOULD go to Middleton Elementary because:

**Topic/Dimension: Food** *(add a topic to break these two reasons into their own dimension)*
- (Pro) They serve great quality food at lunch
- (Con) The lunch quality does not matter, since my child will bring lunch
Step Four Continued

Create a Pro/Con List

These pro/con chains can continue in your list for however long there is back and forth argumentation to consider.

For example:

**Your child SHOULD go to Middleton Elementary because:**

**Topic/Dimension: Food**

- (Pro) They serve great quality food at lunch
- (Con) The lunch quality does not matter, since my child will bring lunch
- (Pro) But in case lunch is forgotten one day, I know they will have a good quality lunch option

Ultimately, you will "micro-vote" on each topic dimension, and choose only the strongest point you agree with in each dimension. That will determine whether the dimension is for or against the answer of "yes" or "no."

After you flesh out your pro/con list, then you can add weights to the reasons in each dimension. Your micro-vote will be a tally of the points for and against the "yes or no" answer to your question, but not all reasons and points are equally strong, so you can customize the value of each point by adding weights.

For example:

**Your child SHOULD go to Middleton Elementary because:**

**Topic/Dimension: Food**

- (Pro) They serve great quality food at lunch (1pt)
- (Con) The lunch quality does not matter, since my child will bring lunch (1pt)
- (Pro) But in case lunch is forgotten one day, I know they will have a good quality lunch option (seems unlikely to matter in the long run .25pt)

When you are adding weights to your reasons, you should work on one dimension at a time, and take the time to really think through the value of the reasons. You should write down the reasons why you may give a pro/con more or less value than just 1pt. Once you've set the value of the pro/con reasons, try not to change them later. You may unconsciously start changing values to bias your decision in a particular direction.
Step Four Continued

Create a Pro/Con List

Now it is time to create a structured pro/con list. You may use the template in this document or create your own. What's important to realize is that the "pros" to the answer "yes" are usually also the "cons" for the answer "no" - whatever your actual answers may be. Therefore, it may be helpful to color coordinate your reasons when you're writing out the pros and cons to the answer of "yes or no." Grab a green and red market to create color coded boxes that you will "check off" when you micro-vote. Sometimes, it can be redundant to take this step, but sometimes not. In general, follow these color coordination rules:

- Red squares **always** indicate the arguments **against** the answer "yes" to your question.
- Green squares **always** indicate arguments **for** the answer "yes" to your question.

Per "set" of for/against arguments indicators (depicted to the left) in each dimension, you should **only choose one of these squares per set**. Choosing a square indicates the reason that you believe is most true. You may also leave all squares in a dimension blank. It's important to focus only on one question at a time.

At the end, you will tally your "for" and "against" votes **by color**, and therefore be provided with a quantification of your leaning. **More red tallies** means you favor arguments **against** whatever the answer "yes" is to your question, **more green tallies** indicate that you **favor** whatever the answer "yes" is to your question.

**ACTION TO TAKE:**
1. Pick out the "main reasons" within the content you are reviewing, and organize them as either "for" or "against" the yes/no answer to your question.
2. Review your collection of pro/con reasons and see if you can break them up into topics.
3. See if there are valid counterarguments to each of the reasons you've collected, in each topic, and add them.
4. Weight your reasons
5. Create a color-coded pro/con check list
My Question Is: ________________________________?

Yes, because........

Topic/Dimension One: _______________________________________________________

☐ Pro Reason: ___________________________________________________________ Weight:____

☐ Con Reason: ___________________________________________________________ Weight:____

☐ Pro Reason: ___________________________________________________________ Weight:____

☐ Con Reason: ___________________________________________________________ Weight:____

☐ Pro Reason: ___________________________________________________________ Weight:____

☐ Con Reason: ___________________________________________________________ Weight:____

Topic/Dimension Two: ______________________________________________________

☐ Pro Reason: ___________________________________________________________ Weight:____

☐ Con Reason: ___________________________________________________________ Weight:____

☐ Pro Reason: ___________________________________________________________ Weight:____

☐ Con Reason: ___________________________________________________________ Weight:____

Topic/Dimension Three: _____________________________________________________

☐ Pro Reason: ___________________________________________________________ Weight:____

☐ Con Reason: ___________________________________________________________ Weight:____

☐ Pro Reason: ___________________________________________________________ Weight:____

☐ Con Reason: ___________________________________________________________ Weight:____

On this page, the "pro" reason is green in support of the "yes" position, this will invert for the next page.
My Question Is: ____________________________?

No, because........

Topic/Dimension One: ____________________________________________________________

☐ Pro Reason: _________________________________________________________________ Weight: ____

☐ Con Reason: _________________________________________________________________ Weight: ____

☐ Pro Reason: _________________________________________________________________ Weight: ____

☐ Con Reason: _________________________________________________________________ Weight: ____

☐ Pro Reason: _________________________________________________________________ Weight: ____

☐ Con Reason: _________________________________________________________________ Weight: ____

☐ Pro Reason: _________________________________________________________________ Weight: ____

☐ Con Reason: _________________________________________________________________ Weight: ____

Notice that the "pro" to the answer "no" is red! Don't get confused - vote by color, not by pro/con orientation!

Topic/Dimension Two: __________________________________________________________

☐ Pro Reason: _________________________________________________________________ Weight: ____

☐ Con Reason: _________________________________________________________________ Weight: ____

☐ Pro Reason: _________________________________________________________________ Weight: ____

☐ Con Reason: _________________________________________________________________ Weight: ____

Topic/Dimension Three: _________________________________________________________

☐ Pro Reason: _________________________________________________________________ Weight: ____

☐ Con Reason: _________________________________________________________________ Weight: ____

☐ Pro Reason: _________________________________________________________________ Weight: ____

☐ Con Reason: _________________________________________________________________ Weight: ____
Step Five:

Micro-vote to see how strongly you lean in one direction or another!

Write up or print out as many pages of pro/con lists as you need, micro-vote on each dimension of each position, and then tally up your votes by weight and color! You can either count up the tallies, or count up the weighted points in each tally. You may use the template on the following page to tally up your answers.

Any checkmark on the red squares always marked a reason against the answer yes, and a checkmark on the green squares always indicated arguments for the answer yes. The total number of red and green tallies on the squares (adjusted for any weighting you’re giving to it) can help reveal to you which way you’re leaning in a decision (for or against), and how severely you are leaning in one direction or another.

Your child SHOULD go to Middleton Elementary because:

Topic/Dimension: Food

- (Pro) They serve great quality food at lunch (1pt)
- (Con) The lunch quality does not matter, since my child will bring lunch (1pt)
- (Pro) But in case lunch is forgotten one day, I know they will have a good quality lunch option (seems unlikely to matter in the long run .25pt)

Topic/Dimension: Extracurricular Activities

- (Pro) They have a great music program (1pt)
- (Con) My child has consistently expressed a disinterest in music (1pt)

ACTION TO TAKE:

1. Micro-vote by selecting only one square (one reason) in each of the dimensions of your decision.
2. Tally up how many red vs. green squares you've voted on, and adjust by any additional weighting you may have added.
3. See which way you lean and how far you lean in this decision! You can even include multiple decision-makers in this process (each filling out their own version of the same sheet). This will allow you to see more precisely where all decision-makers agree and disagree, and it may prompt further discussion, research, and the creation of more robust models.

Learn more: SocietyLibrary.com
Tally Your Scores

Use the tally as an indicator of your leaning.

☐ Red squares always indicate arguments against the answer "yes" to your question

☐ Green squares always indicate arguments for the answer "yes" to your question

Yes, because...

☐ # of Green Tallies _____________________________

☐ # of Red Tallies _____________________________

No, because...

☐ # of Green Tallies _____________________________

☐ # of Red Tallies _____________________________

Total:

☐ # of Green Tallies _____________________________

☐ # of Red Tallies _____________________________

Because red squares always marked an argument against the answer yes, and green squares always indicated arguments for the answer yes, the number of red and green squares indicate the leaning (for or against) of your decision, and how severe your leaning is.
Even by using simple tools to externalize our thinking, we can improve the way we approach decision-making and make it more informed, inclusive, and unbiased.

We hope this tool will be of service to you.
Additional Resources

If you would like to check out additional decision-making methods, tools, and platforms, please consider reviewing the following:

- 1000 Minds Models
- MindTools Decision-Making Models
- Balloon Platform
- MIT Human Resources
- Overview of Various Decision Making Models

We would love to hear from you, so please send us your feedback at: Contact@SocietyLibrary.com
See the next page for a flyer of our decision-making model services.
Our Services Make Governing Easier.

Are meetings dragging on for too long? Do constituents not feel heard? Are people overwhelmed by the complexity of a decision? Our services makes governing easier on everyone.

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Tackle Big Decisions
bit by bit with our easy, evidence-based decision-making tools.

The Process:

1. We collect information from all stakeholders for you: from academics to activists, email chains to audio files.

2. We create a simple decision-making model which breaks down every point of consideration in a decision.

3. Then you can make an easy, informed, logical, and unbiased decision using a quick micro-voting, pro/con check-list tool.

"You took such a complex issue and made it so simple - thank you."

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We do many things, including serve public servants. We use logic, AI, and rigorous research to help everyone make better decisions.

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Make more informed, logical, inclusive, and unbiased decisions in a way in which everyone feels heard and you save time. Book our services now.