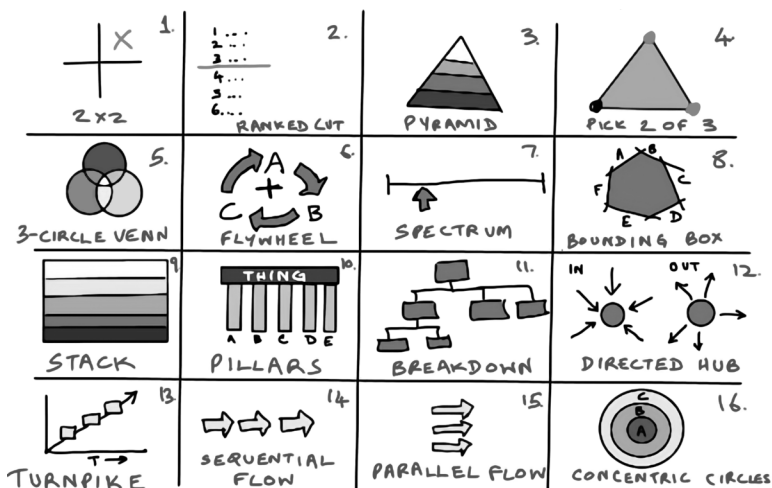# BASIC CONSULTANT DIAGRAMS
I DIAGRAM THEREFORE I AM

THIS IS a chapter on basic consulting diagrams—the kinds of diagrams that you should be able to instinctively judge as appropriate to a discussion and rapidly whiteboard without thinking too hard. I've included sixteen of my favorites in the diagram on the next page to get you started, but you should develop your own vocabulary.

Recent chats with some friends have made me realize that my approach to consulting is based on what academics call ethnomethodology[1] and this particularly applies to how I use diagrams in conversations. Loosely, ethnomethodology means taking the modes of thought and problem solving of lay people seriously, and in my case, actually making them my own.

A great deal of business thinking runs on diagrams drawn on whiteboards or inserted into presentations and briefings. There is usually a good reason actual working people doing serious work rely on these diagrams to frame and structure conversations. You're not a good consultant until you understand the logic and appeal of every popular diagram and learn to use each tastefully.

A word on the relationship between diagramming approaches and indie consulting brands: Many beginning consultants have a

weird kind of insecurity that leads them to invent and rely on over-complicated, bespoke constructs that they can name after themselves. While these can sometimes be useful, especially ones that are developed and refined over many years, across hundreds of applications, such as Wardley mapping (a diagramming technique developed by Simon Wardley), in general, they are fragile visual bullshit. You're mostly better off learning to use the basic diagrams well than trying to make up and sell your own.

Basic consulting diagrams

Many consultants also seem to take a weird kind of pride in avoiding the basic tools of the consulting trade, like 2x2 diagrams, almost as though they are afraid they won't be taken seriously if they use such familiar constructs. To me, this is a clear tell that you don't have confidence in your basic thinking and so are wary of commodity packaging. That, or you're exhibiting a kind of snobbery towards vernacular visual business language that will lead to people distrusting you and refusing to think with you.

Of course, a few people genuinely have objections to one or other diagramming approach as representing dangerously sloppy

thinking. Simon Wardley and I have a long-running good-natured beef about 2x2s for example. But he's also the creator of one of the best 2x2s I've seen: openness *vs.* level of strategic play.

Basic diagrams are basic for a reason. They're like free weights in the consulting gym. Sure they can be used in cringe-inducing ways that are vulnerable to parody, but used with good form, they blow complicated name-brand machine weights and fancy equipment out of the water. Whatever kind of consulting you do, it pays to master basic consulting diagrams. What is common to all of these is that you do not need external data, measurements, or generally even a brainstorm. These are ways to capture your *existing* situation awareness of what's going on, and structure the conversation in a way that participants can pool their beliefs, with the right dominant mood (such as conflict, cooperation, analysis, or synthesis).

All sixteen of these diagrams also have a very special and useful feature: they can usually be described with 5–9 chunks of information. This fits Miller's famous Magic Number argument[2] that we can hold 7±2 items in short-term memory. This means good discussions tend to stay in that range and avoid the meeting getting stupid.

Let's take a quick tour of the sixteen basic diagrams.

1. THE 2X2

The 2x2 is the barbell squat in the business gym. Basic and cliché, but a full-brain workout that forces you to think, pay attention, and practice good form to avoid injury. It can be used to break out of a zero-sum situation by adding a dimension, relate archetypal cases, etc. One of its most interesting and unexpected uses is as a conflict de-escalation tool. When two people are arguing about mutually exclusive options, or a single spectrum, moving the conversation to

a non-conflict mode (if that's what you
want to do) can be as simple as adding an
axis that makes the unspoken conflict vari-
able explicit. The 2x2 is also a natural sweet
spot. Resist the temptation to go 3x3 or
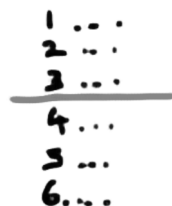2x2x2. It almost never works. Get good at
the 2x2.
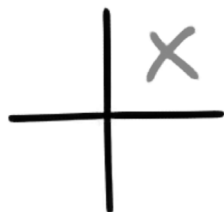
The 2x2

Miller complexity: 11 // two axis labels,
four limit labels, four quadrant labels, one title

Examples: BCG Growth Share matrix, Johari window

2. THE RANKED CUT

If the 2x2 is the squat, the ranked cut is the
deadlift. A simple list is just a data-capture
structure, but what makes the ranked cut a
proper diagram is the addition of a single
line, to model a cut-off or threshold.
Usually you get to a ranked cut by brain-
storming a list, ranking it in some priority
order, and then having a discussion about

The Ranked Cut

where to draw the line and why (which can lead to revision in the
prioritization logic). The line usually marks a proposal dividing
different regimes of action (in the simplest case, *do vs. don't*).

Miller complexity: 4 // above the line, below the line, meaning of
the line, ranking criterion

Examples: feature prioritization, candidates shortlisting

3. THE PYRAMID

The pyramid is used to illustrate a leverage
hierarchy of some sort. It is perhaps the
most familiar diagram, and is synonymous
with organizations themselves. The basic
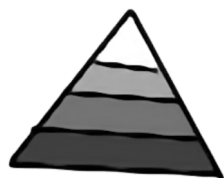
The Pyramid

use of the pyramid is to create a hierarchical structural scaffolding to identify levels of abstraction in analysis, description, or prescription. It's a blank map template for anything. I of course, love pyramids. My entire consulting career is based on an essay about one: Hugh MacLeod's sociopaths-clueless-losers pyramid.

Miller complexity: 3 to 7

Examples: Capability Maturity Model, Maslow's pyramid, MacLeod hierarchy

4. THE PICK-2-OF-3 TRIANGLE

The pick-2-of-3 is probably my own favorite after the 2x2, but is not very commonly used, and this is primarily because it is among the most difficult to use. It requires thinking about interacting real-world constraints that model real tradeoffs. It is an excellent tool to use when

The Pick-2-of-3 Triangle

people seem to be forgetting constraints that matter and are going wild with too-sloppy brainstorming. As with 2x2s, there seems to be a natural limit and a sweet-spot value to the 2-of-3 case, and attempts to create *n*-of-*m* discussions generally don't work, so don't go nuts trying. The combinatorics just get too out of hand and exit the Miller 7 +/-2 zone fast.
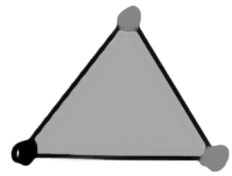
Miller complexity: 3 to 6 // three basic constraint variables, three pairwise-active regimes

Examples: the original cheap/fast/good pizza triangle, the Mundell-Fleming trilemma, the CAP theorem
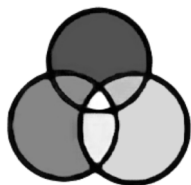
5. THE 3-CIRCLE VENN DIAGRAM

The Venn diagram is a way to create an interference pattern, and add resolution to a basic structure by creating a set of fill-in-the-blank complexities. The three-circle Venn diagram is the most

common one for a good reason: all possible intersections create zones. When you get up to four, you can't intersect opposite pairs pairwise visually. Venn diagrams are particularly useful for archetype analysis, where traits intersect in interesting ways to create evocative role descriptions, like the famous geeks-dweebs-dorks Venn diagram.[3]

Miller complexity: 10 // seven mutually exhaustive regions, three basic circle labels

Examples: geeks-dweebs-dorks diagram, Drew Conway data science diagram[4]
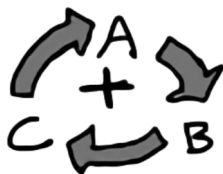
The 3-Circle Venn Diagram

6. THE FLYWHEEL

The flywheel is a visualization of a system that creates compounding effects via a positive feedback loop or virtuous cycle. It is a diagram that is powerful in inverse proportion to the number of blocks in the positive-feedback circle. A 2-block flywheel is more powerful than a 3-block flywheel. Negative feedback flywheels are also useful to visualize draining momentum/vicious cycles.

The Flywheel

Miller complexity: 2 to 7 // one per block in the circle

Examples: Customer acquisition loops, Amazon flywheel

7. THE SPECTRUM

The spectrum is probably the single most commonly used business diagram, but is easily my least favorite because it tends to suck people into a no-exit, zero-sum frame. Often, people use sets of spectra to characterize a large decision space or flesh out the feature space of a product category. This is a

The Spectrum

slightly better way to use spectra. Spectra can be binary or continuous and the resulting "product spaces" defined by spectra can be a mix of discrete and continuous.

The spectrum is probably more useful in discussions about design problems than analysis problems.

Miller complexity: 3 per spectrum // end points, pointer position

Examples: feature set descriptions for disruption debates, persona models

8. THE BOUNDING BOX

The bounding box is one of my favorites, but I rarely see non-engineers use it. It is a loose, qualitative generalization of the idea of a design space, illustrating the zone where you have freedom of choice. Each edge—and I recommend drawing bounding boxes as irregular polygons—represents

The Bounding Box

one boundary with an adjacent zone that can affect what you do, but is outside your control. These could be supply chain partners, regulators, etc. For example, in the semiconductor industry, if you are a chip-design company, you might have a bounding box with foundry, device manufacturers, and IP partners as your edges.
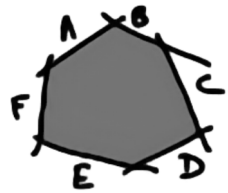
Miller complexity: 4 to 9 // three to eight labeled boundary edges, with an interior label for your in-scope design space

Examples: diagrams of supply-chains, diagrams of physics constraints affecting a design

9. THE STACK

The stack is another diagram inherited from engineering, with the archetype being the stack diagram of a computer. It looks a bit like the pyramid, but has equal size layers. It is great to use for discussing actual stacks involved in engineering, design, and archi-

tecture discussions, as well as more abstract things like industry-sector structure, and market structure.

*Miller complexity:* 3 to 7 // I've rarely seen stack diagrams with > seven layers

Examples: industry-structure diagrams, software architectures

The Stack

10. THE PILLARS

The pillars are, to me, one of the most interesting diagram types because I almost never use them. Their sweet spot is *values-based reasoning.* This does not necessarily mean ethics at a human level. It can be a dogma for highly opinionated engineering design. The vertical orientation suggests a cutting-through of a stack or pyramid, and each pillar suggests a "present at every level of abstraction" concept. So pillars necessarily have to be somewhat abstract because they'll be embodied differently at different levels. With three-pillar diagrams, you can also discuss stability questions, since a two-legged stool will fall over.
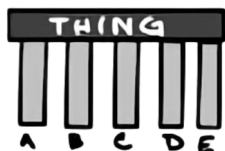

The Pillars

Miller complexity: 3 to 6 // more than six pillars and you have a caterpillar

Examples: "core values" diagrams, equilibrium diagrams

11. THE BREAKDOWN

The breakdown is a special kind of top-down tree, where a large ambiguous thing is progressively broken down into component parts that are bite-sized chunks ready for resource allocation, responsibility assignment, or functional coverage in a
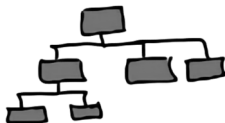

The Breakdown

design. They can be used in formal, technical ways in some engineering disciplines, but are commonly used in much more informal ways.

Miller complexity: 9 to 15 // with some chunking by branch and level lowering the cognitive burden to single digits

Examples: project breakdown, root cause analysis, org charts

12. THE DIRECTED SPOKES

The directed spokes are a set of arrows arranged along the spokes of an imaginary wheel, with a labeled hub. In an inward pointing orientation, they usually represent environmental forces you must respond to.
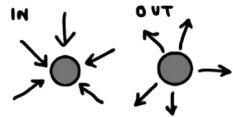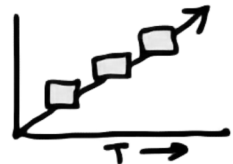

The Directed Spokes

In the less-common outward orientation, they represent some sort of impact analysis. Where a flow (see 14 and 15) is a controlled, directed pattern of unfolding action and consequences, the outward spokes are good for thinking about relatively uncontrolled impact patterns, such as the effects of a major press release.

Miller complexity: 4 to 5 // 1 per spoke, 1 central concept

Examples: descriptions of environmental factors affecting a company, convergence/divergence in trends, impact analysis, fallout patterns

13. THE TURNPIKE

The turnpike is an idealized pattern of growth where two evolving variables are in a healthy dynamic balance. In the simplest, somewhat degenerate case, the x-axis is

The Turnpike

simply time, while the y-axis is something like capability. The turnpike—the term is from economics—is the vector of optimal growth. Below the line and above the line you get some sort of suboptimal (and possibly unstable) out-of-balance condition. On

the turnpike, you get some sort of idealized pattern of evolution or growth.

Miller complexity: 7 to 9 // one per axis, turnpike label, above/below line region labels, one per "milestone" box

Examples: product development roadmaps, capability maturation paths, business-evolution stages

14. THE SEQUENTIAL FLOW

The sequential flow is a *single* set of arrows going from left to right, representing the temporal gestalt. The more detailed (and in most cases, less useful and possibly harm-

The Sequential Flow

ful) version is the Gantt chart. The sequential flow *serializes* the necessarily complex detailed behavior into a set of phases or gears. Often separated by stage gates with go/no-go decision points, in which case this is the horizontal, temporal version of the ranked cut.

Miller complexity: 3 to 8 // one per arrow, and, optionally, one between each pair of arrows, and a pair of bookends, along with a overall flow label

Examples: project phase structure, narrative structure, causal hypotheses

15. THE PARALLEL FLOW

Parallel-flow diagrams are useful when you need to talk about synchronized efforts. Unlike the vertically oriented cousin (*10. Pillars*) which represent timeless values, the parallel flow represents the most precisely timed artifact in business: the synchroniza-

The Parallel Flow

tion point. Things that have to line up at a single point in time.

Usually it is used to talk about an all-or-nothing outcome with several necessary conditions (a large *AND* gate basically); with some practice you can also use it for talking about hedged option sets (an *OR* gate).

   Miller complexity: 3 to 8 // one per arrow, synchronization point label, overall flow label

   Examples: launch conditions modeling, go/no-go necessary/sufficient conditions

16. THE CONCENTRIC CIRCLES

The last of my sixteen basic diagrams is a focusing tool. Concentric circles are usually used to think about fuzzy structural boundaries, with a stepped transition from inside to outside. A common example is modeling an ecosystem or sets of prioritized concerns with a coarse ordering. The

The Concentric Circles

concentric circles are closely related to the basic linear spectrum. The radial axis of a concentric circles diagram is a directed spectrum. The tangential direction represents an unsorted residual direction of "everything else."
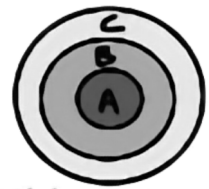
   Miller complexity: 3 to 5 // one per ring

   Examples: ecosystem models, partitioning of concerns along a focal to peripheral spectrum

USING VISUAL LANGUAGE

There are plenty more, but I'll stop at sixteen. Diagrams are like any other language. You get better with practice and your vocabulary expands as you gain both experience and theoretical knowledge. As long as you never use diagrams simply for the sake of using them, and focus on improving your ability to pattern match contexts where a particular type of diagram is useful, your

command of the language will improve and you will become more eloquent and useful as a discussion partner.

Don't turn your nose up at the basic stuff. Don't invent or use unnecessary, bespoke, complex stuff. Use what works, pay attention to *when* and *how* it works, and use it better next time. If people you're talking to seem to have an aversion to particular bits of your vocabulary, don't waste too much time trying to convince them. Just switch to mutually preferred vocabulary. The point is the discussion, not displaying your diagramming prowess. It's not complicated unless you want to make it complicated.

1. en.wikipedia.org/wiki/Ethnomethodology
2. en.wikipedia.org/wiki/The_Magical_Number_Seven,_Plus_or_Minus_Two
3. laughingsquid.com/nerd-venn-diagram-geek-dork-or-dweeb/
4. drewconway.com/zia/2013/3/26/the-data-science-venn-diagram