

The 4-Hour **CHEF**



THE SIMPLE PATH TO COOKING LIKE A PRO,
LEARNING ANYTHING,
AND LIVING THE GOOD LIFE

FROM #1 *NEW YORK TIMES* BEST-SELLING AUTHOR

TIMOTHY FERRISS

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AND LIVING THE GOOD LIFE

TIMOTHY FERRISS

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NOTICE ON FOOD HANDLING

This book is about cooking; it's not a food processing and handling manual. I strongly encourage you to read and follow the established safe food processing and handling guidelines available through the USDA, FDA, and Department of Health and Human Services, including:

foodsafety.gov
fsis.usda.gov
fda.gov/food/foodsafety

NOTICE ON INTERNET RESOURCES

My full curriculum is within the covers of this book. For those of you who want to "go beyond" in your research, I have provided links to Internet resources. My team and I have worked to check that these links are accurate and point to resources available when this book was released for publication. But Internet resources change frequently, and other confounding variables beyond my control intervene. So, for various reasons, the links may not direct you to the resource I had intended. In many cases, you will likely be able to use your favorite search engine to locate the correct link. Where links to a good resource are not working, and avid readers among you let me know, we will work to provide updated and corrected links in posts or pages at fourhourblog.com.

NOTICE ON HAND WASHING

When in doubt, wash your hands. Touched meat? Wash your hands. Rinsed spinach? Wash your hands. Saw a shooting star? Yep, wash your hands. Do it more than you think necessary.

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Dedication

For my parents, who taught a little hellion that marching to a different drummer was a good thing. I love you both and owe you everything. Mom, sorry about all the ridiculous diets and experiments.

For Mark Twain, who had a great mustache and put it best:

“Whenever you find yourself on the side of the majority, it’s time to pause and reflect.”

For leekspin.com, the most ridiculous site on the web. You helped me finish this book.

And for those who defend sustainable agriculture and promote truly good food. Ten percent of all author royalties are donated to rock-star nonprofits, such as American Farmland Trust (farmland.org) and the Careers through Culinary Arts Program (ccapinc.org).

6 REASONS TO READ THIS BOOK, EVEN IF YOU HATE COOKING (AS I DID)

The 4-Hour Chef (4HC) isn't a cookbook, per se, though it might look like one. Just as *Zen and the Art of Motorcycle Maintenance* isn't about changing oil, this book isn't quite what it appears.

Even if you hate cooking, here are six reasons you should read at least the first few chapters of this book:

#1 YOU WILL LEARN HOW TO BECOME WORLD-CLASS IN ANY SKILL IN RECORD TIME.

Whether you want to learn how to speak a new language in three months, how to shoot a three-pointer in one weekend, or how to memorize a deck of cards in less than a minute, the true “recipe” of this book is exactly that: a process for acquiring any skill. The vehicle I chose is cooking. Yes, I'll teach you all the most flexible techniques of culinary school using 14 strategically chosen meals, all with four or fewer ingredients, and all taking 5–20 minutes to prepare (literally, *The 4-Hour Chef*). But I wrote this book to make you a master student of all things.

#2 EATING (AND LIFE) WILL BECOME HIGH-DEFINITION.

In China, a common greeting is “*Chi le, mei you?*” or “Have you eaten?” This is the universal check-in. So I pose the question to you: have you *really* eaten? I now realize that before writing *4HC*, I hadn't. Back then, food

was either good or bad, hot or cold, spicy or not. Now, it's a million colors, and I can pick out the subtleties: the cilantro or tarragon, the umami savoriness, or the lack of vinegar. It's like going from a 7" black-and-white TV to HD. Before *4HC*, much of my **life** was in black and white. As you'll see, the awareness we build in the kitchen and in related adventures will affect everything. Life itself becomes high-definition.

#3 YOU WILL GET INTO THE BEST SHAPE OF YOUR LIFE.

The dishes you'll learn, apart from desserts for “cheat day,” are all compliant with the Slow-Carb Diet®, which has become a global phenomenon (page 74). Fat loss of 20 pounds in the first month is not uncommon. If you follow this book, you won't have to think of following a diet, since it's built in. If you ever decide to follow another diet, you'll be twice as effective, because you'll understand how to manipulate and maximize food.

#4 IT DOESN'T TAKE MUCH TO BECOME IMPRESSIVE.

In the first 24 hours, I'll take you from burning scrambled eggs to osso buco, one of the most expensive menu items in the world. If 28% of Americans can't cook at all,[‡] and if another third are on some variation of mac and cheese, having even one seemingly difficult meal up your sleeve puts you in rare company. Make that two bulletproof meals and you can host impressive dinner parties for the rest of your life.

#5 COOKING IS THE MATING ADVANTAGE.

If you're looking to dramatically improve your sex life, or to catch and keep "the one," cooking is the force multiplier. Food has a crucial role in well-planned seduction for both sexes, whether in long-term relationships

("MLBJ," page 234) or on first dates (Sexy-Time Steak, page 186). For real romantic superpowers, learn how to teach the skill of tasting (Learning to "Taste," page 50).

#6 BECAUSE IT'S FUN.

The "practical" fails more than we'd like to admit. I'll take breaks in this book as often as necessary to keep you amused. Food marathons? Check (page 468). Hysterical kitchen lore anecdotes? Tons. Eating 14,000 calories in 20 minutes (page 454)? Why not?

This isn't a textbook. Think of it as a choose-your-own-adventure book.

As Bruce Lee said, "Adapt what is useful, reject what is useless, and add what is specifically your own."

THE EDUCATION OF A CULINARY IDIOT

1979, AGE TWO

I eat my first handful of crickets à la front yard. Life is good.

DECEMBER 1980

I stop eating crickets, to my mother's delight. Now I'm tall enough to chomp on Christmas ornaments.

1989

As a rat-tailed townie in East Hampton, New York, I start working part-time in restaurants. The small collection of Long Island towns known as the Hamptons doubles as a playground for the rich and famous, while also serving as the hometown for landscapers, fishermen, and alcoholics who loathe the rich and famous. As a busboy, I worked at some of the highest-volume (The Lobster Roll) and highest-priced (Maidstone Arms) restaurants. For every Billy Joel, who smiled and tipped \$20 for coffee, there were 20 wannabes in polo shirts with popped collars asking, "Do you know who I am?" I learned to hate restaurants and, by extension, cooking.

1999

While on the no-carb Cyclical Ketogenic Diet (CKD), I develop an insatiable desire for anything crunchy and start experimenting with low-glycemic baking. Pacing up and down the aisles at Safeway, I'm unable to find baking powder and conclude it must be the same as baking soda, which I grab. The chocolate-and-macadamia-nut cookies come out looking incredible, just in time for my friends to return from work. As manimals do, they each eat three cookies in seconds, promptly followed by power chucking on the lawn.

2000

To avoid starvation, I buy my first microwave.

2001

Subsisting on microwavable Lean Cuisines, I start watching the Food Network for 1–2 hours a night to decompress from my start-up. Half-asleep one evening, I overhear Bobby Flay say, "Take risks and you'll get the payoffs. Learn from your mistakes until you succeed. It's that simple." I type this up and put it on my desk for moral support during moments of self-doubt. There would be many.

2007

The 4-Hour Workweek is published after being turned down by 26 publishers. I'm still enjoying the Food Network six years later, and I still haven't made a single dish.

2008

I become YouTube-famous for microwaving egg whites in plastic containers, which earns me the scorn of foodies worldwide. My follow-up act is a how-to video on "how to peel eggs without peeling them," which gets more than 4 million views. Being too lazy to cook is apparently popular.

JANUARY 2010

My friend Jesse Jacobs wants to catch up on business and insists we cook dinner at my place. I respond that *he'll* cook and *I'll* handle wine. Unbeknownst to me, Jesse was a sous-chef (second in command) at a top restaurant in a former life. He insists on walking me through the meal. Pointing at a large Le Creuset pot he brought, he begins:

"Put those chicken pieces in the pot." Check.

“Put in the veggies and potatoes. No need to cut them.” Ten seconds later, check.

“Pour in some olive oil and salt and pepper, and mix everything around with your hands to coat it. You don’t need to measure anything.” Ten seconds later, check.

“Now, put them in the oven.” Check.

“We’re done.”

I can’t believe it. “That’s it?” I ask, incredulous.

“Let’s catch up for two hours and drink some wine,” he says. It’s one of the most delicious meals I’ve had in years. Inspired, I decide to give cooking another chance.

JUNE 2010

My enthusiasm dies a quiet death. Overwhelmed by contradictory advice, poorly organized cookbooks, and unhelpful instructions (e.g., “Cook until done”), I throw in the towel yet again.

APRIL 2011

I meet my girlfriend, Natasha, who learned how to cook by imitating her grandmother. She didn’t do this as a child, but when she was in her mid-20s. She decides to teach me how:

“Smell this. Now smell this. Do they go together?”

“No. Gross.”

“OK, now smell this and this. Do they go together?”

“Yep.”

“Great. That’s cooking.”

Great sex ensues, and I decide I’ve been unfair to cooking. Groundhog Day.

AUGUST 2011

I commit to writing a book on learning, using cooking as the vehicle. Fun! My girlfriend can help!

SEPTEMBER 2011

Over the course of one week, I ask my girlfriend, “Is this basil?” 20 times. I want to punch myself in the face 20 times. Crisis of meaning. Revisit Bobby Flay quote.

OCTOBER 2011

After four weeks of nervous breakdowns and practically zero progress, I land in Chicago. Two days later, I replicate a two-Michelin-star entrée (sea bass, Ibérico ham, watercress, butter, and olive oil) in my hotel bathroom sink with next to nothing: scalding-hot tap water, Ziploc bags, and a cheap Polder thermometer. It’s ready 20 minutes later and finished with a gorgeous crust, courtesy of the iron in the closet. I had learned the technique by watching a chef’s eight-year-old son. All is not lost.

NOVEMBER 2011

I hit the inflection point. Sitting at the Polaris Grill in Bellevue, Washington, I am suddenly able to see food in HD—as if someone had handed me prescription glasses and corrected lifelong blurred vision. All the random pieces come together; I can clearly “see” pairing through taste and smell (e.g., orange and fennel), I can tell if the steak is 100% grass-fed or grain-finished by the waxiness on the palate, I correctly guess the origins of the Dungeness crab, wine, and oysters (three types), and the cooking methods for the scallops, pork chops, and more. The waiter asks me if I’m a chef (answer: no), and the executive chef comes out to introduce himself. It is otherworldly.

NOVEMBER 24, 2011

I cook Thanksgiving dinner for four people. Graduation day. For a lifelong noncook, I feel on top of the world.

JANUARY 2012

I start eating crickets again, this time roasted. I’ve rediscovered the wonder of food . . . and the childlike curiosity I thought I’d lost.

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ON THE SHOULDERS OF GIANTS

I am not an expert, nor am I a master chef.

I'm just the guide and explorer. If you find anything amazing in this book, it's thanks to the brilliant minds who acted as resources, critics, contributors, proofreaders, and references. If you find anything ridiculous in this book, it's because I didn't heed their advice.

Though indebted to hundreds of people, I wish to thank a few of them up front, here listed in alphabetical order (see more in the Acknowledgments on page 640):

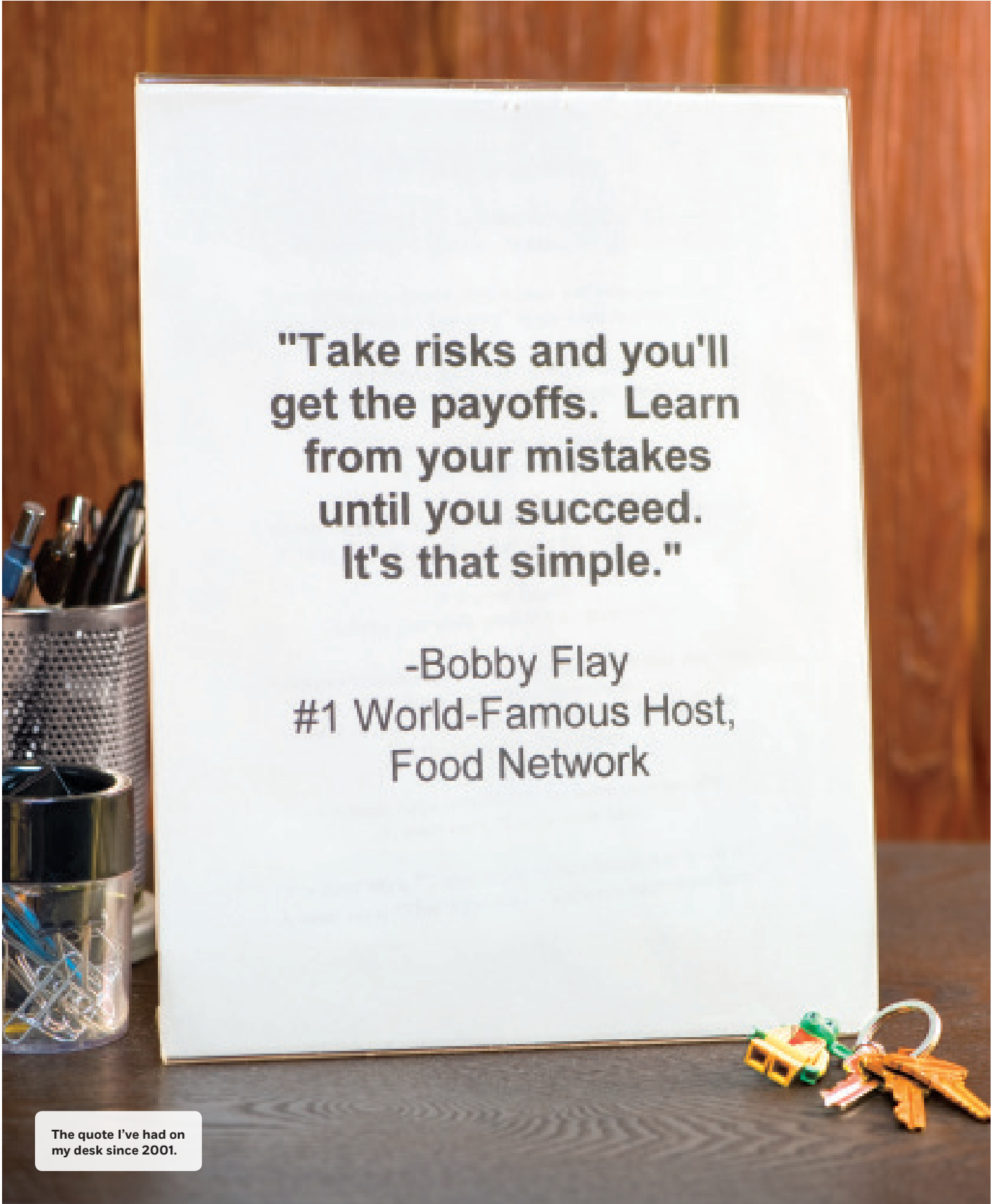
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Dean Sylvester
Tinywino
Rick Torbett
Gary Vay-ner-chuk
"Victor"
Josh Viertel
Robb Wolf
Chef Chris Young
Jeffrey Zurofsky



Central Kitchen, San Francisco.

A white card with a quote by Bobby Flay is placed on a dark wooden desk. To the left of the card is a silver mesh pen holder containing several pens and a clear plastic container with paper clips. To the right of the card are some colorful paper clips and a set of keys. The background is a wooden wall.

**"Take risks and you'll
get the payoffs. Learn
from your mistakes
until you succeed.
It's that simple."**

**-Bobby Flay
#1 World-Famous Host,
Food Network**

The quote I've had on
my desk since 2001.

HOW TO USE THIS BOOK: CONFESSIONS, PROMISES, AND GETTING TO 20 MILLION

12 NOON, RIVERPARK RESTAURANT AS A GUEST

“Doesn’t it taste like acorns?”

It did. Mangalitsa acorn-finished woolly boar tasted *just* like acorns. I was chewing on fall, clear as crystal, in a sliver of cured ham.

The clouds parted, and our plates were bathed in summer sunshine. Resting my elbows on the teak table, I looked out over the East River. Sunday brunch at 29th and First was off to a picturesque start.

Drinking albariño white wine with me were two friends: Josh Viertel, then president of Slow Food USA, and serial restaurateur “Z,”¹ whom I’d helped kick caffeine withdrawal the week before. I’d given him an l-tyrosine cocktail and, in exchange, he and Josh were teaching me the inside baseball of the food world.

“Check out the Bocuse d’Or—it’s the Olympics of cooking.”

“If you want a really funny story, you should include how Thomas Keller, as an expert witness in a trial, analyzed a fried egg as evidence.”

“Visit Craft sometime. Leather covers the walls for acoustics. It distributes all the noise to the front and back corners, where the bathrooms—not diners—are.”

“Did you know *sauté* actually comes from the French ‘to jump’? To train the proper technique, you can put dried kidney beans in a skillet and mimic this motion while kneeling on a carpet. . . .” Demos ensued.

It was all new. I had never successfully cooked before, and that’s why I was there—to learn.

4 P.M., BACK OF HOUSE AS A TRAINEE

“Is this clean?” I asked.

“No. See this dirt, all over the stems? That’s not clean. Use a bowl instead of holding it under the faucet. Rinse three times.”

“Thank you. Sorry about that,” I said with a sigh. I didn’t know how to *rinse* basil, let alone distinguish it from the two herbs next to it.

I was trailing a prep cook, whose job is to prepare the basics—chopped onions, sorted micro-greens, etc.—before dinner, when the line cooks assemble and plate everything for guests. She’d been told to give me something idiotproof.

“How’s the micro-basil coming?” she asked over her shoulder.

I wasn’t one-tenth through the container I was supposed to sort. I simply couldn’t combine accuracy and speed. Now I was more than an inconvenience; I was jamming up her station.

After 30 minutes of fumbling, I was relieved of duty. It would be observation only for the rest of the night. As a spectator, I jotted down dozens of finer points I’d somehow missed the first 10 times through.

Why couldn’t I get it right?

¹ To be unveiled later.

At 6 p.m. I hung up my chef's whites, looking like Eeyore from *Winnie-the-Pooh*. I had failed.

The team at Riverpark had been awesome, unbelievably forgiving, and, to my eyes, superhuman. Once dinner got rolling, I noticed that the line cooks' forearms looked like they'd been dragged through hot coals and barbed wire.

Sixty minutes into the dinner rush, when I was convinced nothing could move faster, the chef de cuisine announced, "Look happy, boys. We have 42 open menus!" That meant 42 people were looking at menus at the same time, which meant 42 orders would hit two line cooks at the same time. Chino, one of the two, kicked into high gear, moving fire and food for dozens of orders like Doctor Octopus on fast-forward.

They were completely unfazed. Another day at the office. Me? Decimated by washing a handful of leaves.

When I walked outside and back into civilian life, I hugged a new bible under one arm: *The Silver Spoon*, the best-selling Italian cookbook of the last 50 years. To me, it was like holding the *Necronomicon*. Sisha, the Chilean chef-partner, had given it to me when I first toured the kitchen earlier that day. It was his copy, and he'd insisted I take it after I commented on its beauty.

Now, I felt guilty for taking it.

I edged alongside Riverpark's outdoor farm, keeping out of frame of a car commercial being filmed in the traffic circle 30 feet away. As I jogged past an extra to catch a cab, he looked at the bundle under my arm and asked with a smile, "Future chef?"

I looked back and returned the smile as best I could.

"Yeah."

DIGITAL DEPRESSION AND THE PUZZLE OF COOKING

In 2011, a slow-growing malaise came to a head.

It hit me like acid reflux, a dull ache every time I closed my laptop with nothing to show for my effort besides invisible bits and bytes. One reflective weekend, I decided that I wanted to try woodworking: to *make* something. I needed to use my hands to *create* something. Swinging a tennis racket or lifting weights, as physical as they were, didn't cut it.

Sadly, life got in the way. The Oakland woodworking studio was too far away, I couldn't commit to a fixed time each week, I didn't have space for what I'd make—the usual list of I'm-busy-being-busy excuses.

Then, one evening, I took my girlfriend to the mecca of Northern California cooking, the world-famous Chez Panisse in Berkeley. Despite a decade in the Bay Area, I'd never been, partially because I still behaved like a cash-poor recent grad (remedied in this case by a gift certificate). Shelves of *The Art of Simple Food* by Chez Panisse founder Alice Waters lined the wall behind the bar. I skimmed a red-spined copy while we sipped wine and waited to be seated. I ended up engrossed and, much to the chagrin of my girl, took notes while we ate. As I half-watched the bustle in the open kitchen, and assured the server that I'd buy the book, I underlined two passages in particular:

"When you have the best and tastiest ingredients, you can cook very simply and the food will be extraordinary because it tastes like what it is." And: "Good cooking is no mystery. You don't need years of culinary training, or rare and costly foodstuffs, or an encyclopedic knowledge of world cuisines. You need only your own five senses."

By the time the bill came, I was practically bouncing in my seat. "Babe, I think I could actually do this!"

Cooking would become my tool for reclaiming the physical world. It was time to use my opposable thumbs for something besides the space bar.

SCD: photos & recipes from game rest in SF
 "Cook" by budget (\$50, 100, \$250, \$1,000)
 Knife handling (30)
 Recipes: simple, still simple, shrewdly

CHAPT: Close Cousins: Effective Variants of SCD

(organize by body part (-spillet) and meal)
 (cross-referencable)

smelling approach

(5) Herbs + Spice + Everything

different (p. 11), types (13)
 TP tuning the "bachelor rack"
 CPE

live (or "How to Cheat")

'Hyllas + Macrowaves'
 (CPE, cans, microwaves, etc.)

'Slow-Cook Wines'
 (any wines) + Hot-Cal

Sidabar!, Bean Flour
 and Almond Milk!

Form affects function
 (61, etc.)

Sweet Sin:
 Sweet pot.,
 Haws, Fava,
 etc.

The Milky Way:
 Goat vs. Cow vs.
 Paw

Slow-Food Chapter + contribution
 Culinary map of SF

(19) Make brother carrots
 (30) - simple

p. 6 TFF Plant a garden
 Kill diners, hog
 Live up farmers
 (Kemp?)

Reprint labeling post
 "Cheat day!"
 crazy or conservative?

pot or 2
 lot herbs
 or
 window
 571

going
 real
 examples w/ color counts



The starting point: hundreds of books, filtered by overlaying survey results, average Amazon reviews, and Nielsen Bookscan sales numbers.

Cooking wasn't the first skill I'd tackled. In fact, I'm somewhat obsessed with accumulating strange credentials, ranging from a Guinness World Record in tango to a gold medal at the 1999 Chinese national kickboxing championships.

Given this, why had cooking kicked my ass so many times?

- There's an overabundance of information. No other subject matter I've encountered comes close. It's a full-time job just to find the best place to start.
- Cookbooks are often formatted for the writers, I discovered, not for the readers. A logical grouping for the writer is rarely a logical progression for the student. Who's going to cook six chicken dishes in a row?
- Cooking practice can be expensive and impractical. If you have the time, you can practice your tennis serve a thousand

times a day for a few dollars. Making a thousand omelets a day? That's a different story.

So, what to do?

WHY YOU'LL SUCCEED—TWO PRINCIPLES

I eventually learned to cook by focusing on two principles. Both of them apply to all learning and will be your constant companions throughout this book: **failure points** and **the margin of safety**.

FAILURE POINTS— THE POWER OF PRACTICAL PESSIMISM

I don't care why people pick up cookbooks. I'm much more interested in why they put them down.

The hypothesis: if I can address the primary, but often ignored, tripping points, I should be able to increase the number of people who eventually become master chefs. To develop a list of failure points—the reasons people put

cookbooks down—I polled more than 100,000 of my fans on Facebook (64% male, 36% female) and looked for patterns. Here are a few:

- Too many ingredients (and therefore too much shopping and prep).
- Intimidating knife skills, introduced too early in cookbooks.
- Too many tools, pots, and pans, which are expensive and require too much cleanup.
- Food spoilage.
- Different dishes finishing at different times, leading to cold food, undercooked food, burned food, etc.
- Dishes that require constant tending, stirring, and watching.

Saying I can create more master chefs doesn't mean I'm a master chef, even if I've improved 100-fold (which I have).

Nor does it mean that this book alone will make you a master chef. It simply means that no master chef exists who hasn't overcome the above problem areas, so addressing them should be a novice cookbook's *primary* goal, not an afterthought.

This book aims to systematically overcome all of the above failure points, step-by-step.

THE MARGIN OF SAFETY— IF WARREN BUFFETT DESIGNED MENUS

Most cookbooks ignore how unreliable recipes can be.

As scientist Nathan Myhrvold points out, even if you follow the exact same recipe using identical equipment and ingredients, humidity and altitude alone can create totally different outcomes. If a cookbook author is testing a recipe in Tahoe during the winter and you try to replicate it in San Diego in July

heat, you might fail, even though you follow it perfectly. Rather than hope your environment is the same as mine, I looked for bullet-proof recipes.

This is where the **margin of safety** applies.

Warren Buffett is the most successful investor of the 20th century and a self-described “value investor.” He aims to buy stocks at a discount (below intrinsic value) so that even with a worst-case scenario, he can do well. This discount is referred to as the “margin of safety,” and it's the bedrock principle of some of the brightest minds in the investing world (e.g., Joel Greenblatt). It doesn't guarantee a good investment, but it allows room for error.²

In the world of cooking, I'll apply the margin of safety as follows: how badly can you mangle the recipe and still get something incredible? In real estate, the adage is, “You make your profit when you buy the property, not when you sell it.” In cooking, it could be, “You guarantee a good meal by picking the recipes well, not by following recipes well.”

Early wins are critical for momentum, so we'll guarantee them.

THE PROGRESSION—DOM, WILD, SCI, PRO

There are five sections in this book. After META-LEARNING, the progression is color coded for difficulty, just like jujitsu: blue, purple, brown, and black.

From the science of el Bulli, the famed Spanish restaurant that was harder to get into than Harvard,³ to the fish markets of Kolkata to the backcountry of South Carolina, no stone was left unturned in search of powerful simplicity.

Turn the page to see what our journey together will look like.

² This principle applies outside of investing. In childbirth, for instance, research reports have concluded that long forceps are safer than suction or a C-section. Veteran ob-gyns, however, disagree. Why? Because forceps are safe *if* you can maintain no more than 2 lbs of squeezing pressure *and* no more than 40 lbs of pull, and only *if* you can repeat this under stressful conditions every time. One of my close friends, who is now a professor at Stanford Medical School, suffered brain damage and hemorrhaging when he was delivered because the doctor used too much pressure. Forceps have a low margin of safety—no wiggle room for mistakes.

³ On a single day in the fall of each year, the restaurant booked the next year's reservations, accepting approximately 8,000 seats from a reported 2 million requests.

the Menu

L'ANTIPASTO

META-LEARNING

(META)

This is where I introduce every important principle I've discovered about accelerating learning.

It starts with smart drug self-experimentation at Princeton (inhaling hormones, anyone?), progresses to language learning, and branches off into everything imaginable: sports, memorizing numbers, "learning" smells, deconstructing food, even cramming six months of culinary school into 48 hours.

If you're only interested in cooking, you can skip this section, but I highly suggest you give it a read at some point. It is the backbone of this book.

IL PRIMO

THE DOMESTIC COOK

(DOM)

DOM is where we learn the building blocks of cooking. These are the ABCs that can take you from the simplest words to Shakespeare.

The goal of this section is ambitious: to deliver all the fundamental building blocks of culinary school in four hours of total prep time: 14 core dishes x 5–20 minutes. This is the literal portion of *The 4-Hour Chef*. Here, we also *begin* to answer the question that Sherry Yard, the executive pastry chef of Spago in Beverly Hills, put to me when I explained the premise of the book: "How do you cut time without cutting corners?"

The secret is in sequencing.

If you stop reading here, you will know "how to cook" for all intents and purposes and will earn back the price of this book manyfold.

IL SECONDO

THE WILD

(WILD)

WILD is where you will become not only good *with* your hands, but also self-sufficient *in* your own hands. If you've ever wondered about urban foraging, fermentation, pickling, hunting, and pigeons as food, this will probably be your favorite section.

IL CONTORNO

THE SCIENTIST

(SCI)

If WILD is the die-hard pragmatist, SCI is the mad scientist and modernist painter wrapped into one.

Rather than preparing you for spartan minimalism, this section is about rediscovering whimsy and wonder, two ingredients sorely lacking past childhood.

IL DOLCE

THE PROFESSIONAL

(PRO)

Swaraj, a term usually associated with Mahatma Gandhi, can be translated as "self-rule." Think of it as charting your own path.

In PRO, we'll look at how the best in the world *become* the best in the world, and how you can evolve far beyond this book. There's much more to cooking besides food. Take Chef Grant Achatz "plating" your table, which is covered in gray latex, by dropping and shattering a dark-chocolate piñata full of assorted desserts. It's texture, theater, and so much more, all wrapped into one.

We'll finish up with tools for perfecting your own creative powerhouse.

THE MICRO GOAL—ON BECOMING A “CHEF”

Julia Child wasn’t always Julia Child. In fact, she could barely boil an egg when she got married.

Late in her career, she became a chef—and changed how the English-speaking world viewed cooking.

In restaurants, the distinction between *cook* and *chef* is important: someone who can cook is a cook, whereas someone who can create a menu and run a kitchen is a chef. Calling yourself the latter when you’re the former, as many TV hosts do, is a no-no. In some circles, the cook is a technician, however good, and the chef is the conductor. The former is the bricklayer, the latter the architect of the cathedral.

In *The 4-Hour Chef*, I use *chef* in the most literal sense, like the Spanish *jefe*. Derived

from the Latin term for “head,” it signifies boss or leader. This book aims to make you self-reliant, whether in the kitchen or in life: to wrestle control from chaos, to feel like a director instead of an actor, and perhaps to create something bigger than yourself.

In their wonderful book *Culinary Artistry*, Andrew Dornenburg and Karen Page provide a table with three hypothetical categories of chefs (see below).

My goal is to move you from the far left to the right, and the customer quotes will be your own. The most important part of all is that *you finish your meals* with the bottom-right sentiment. Even if you end your journey at burgers—damn fine burgers, mind you—life can and should be wonderful.

We’ll use training *in* the kitchen as training for everything *outside* of the kitchen.

THREE TYPES OF CHEFS—THE PROGRESSION

COURTESY: CULINARY ARTISTRY

| | TYPE OF CHEF | | |
|---------------------------|-------------------------------|-----------------------------|---------------------------|
| | TRADE | CRAFT | ART |
| CATEGORY | “Burger-flippers” | “Accomplished chefs” | “Culinary artists” |
| CUSTOMER GOAL | Survival | Enjoyment | Entertainment |
| CHEF’S INTENTION | Fill/feed | Satisfy/please | Transcend/transport |
| PRICE OF LUNCH | Movie ticket | Off-Broadway theater ticket | Broadway orchestra ticket |
| WHO DETERMINES MEAL | Customer (“Have it your way”) | Customer/chef | Chef (tasting menu) |
| CHEF’S PRIMARY REPERTOIRE | Hamburgers | Classic dishes | Chef’s own dishes |
| NUMBER OF SENSES AFFECTED | Five | Five | Six |
| CUSTOMERS LEAVE SAYING | “I’m full.” | “That was delicious.” | “Life is wonderful.” |

THE MACRO GOAL—20 MILLION PEOPLE

I'd never had coffee-cup envy before. But this was one hell of a coffee cup:

"Can I get one of those?" I asked.

"Probably not," Sam replied.

Well, it was worth a try.

Sam Kass honed his culinary skills at Avec restaurant in Chicago. Then he became a private chef and started cooking for an up-and-coming senator named Barack Obama. Now, as assistant White House chef and food initiative coordinator, Sam is one of the first family's go-to experts in all things culinary. This spans from national food policy to replacing pesticides in their backyard with crab meal and ladybugs.

When Sam and I met in Washington, D.C., I explained my background in publishing and tech, mentioned the acquisition of this book by Amazon Publishing, and politely asked his advice:

"I have a platform to reach millions of people, and I don't want to screw up this opportunity. I might not get it again. How should I be thinking about the bigger picture of food?"



His answers paralleled what I'd read and heard from Mark Bittman, the great *New York Times Magazine* food writer: in effect, that we are at a deciding fork in the road, and the next 10 years (perhaps less) will decide the future of food production in the United States.

Here are a few of my notes, from multiple sources:

- In the U.S., the last generation of career farmers is retiring. Specifically, more than 50% are set to retire in the next 10 years. Their farmland will be up for grabs. Will it go to an industrial agro-corp like Monsanto, and therefore most likely lead to monocrops (wheat, corn, soy, etc.) that decimate ecosystems? Will it be strip malls? Or might it become a collection of smaller food producers? The last option is the only one that's environmentally sustainable. It's also the tastiest. As Michael Pollan would say: how you vote three times a day (with the meals you eat) will determine the outcome.
- Going small can amount to big economic stimulus. Let's look at the economic argument for shifting from a few huge producers to many smaller producers: by diversifying crops beyond corn and soybeans in just six agricultural states, the net economic gain would be \$882 million in sales and 9,300 jobs, according to the Leopold Center for Sustainable Agriculture at Iowa State University.
- Environmental impact? Converting the U.S.'s 160 million corn and soybean acres to organic production would sequester enough carbon to satisfy 73% of the Kyoto targets for CO₂ reduction in the U.S.

In other words, the fun you have in this book will do a lot of good beyond you and your family. In many ways, our eating behavior in the next few years will decide the future of the entire country.

The magic number and my target is 20 million people. It is the tipping point: 20 million people can create a supertrend.

To dodge the submerged iceberg of industrial-scale food production and its side effects, to alter the course of this country and reinvigorate the economy, all I need to do is make you more *interested* in food. In total, we need to make 20 million people more *aware* of eating.

This will lead to changes, starting with breakfast. Then the snowball of consonant decisions takes care of the rest.

Stranger things have happened.

LET US BEGIN WITH BEGINNER'S MIND

Mise en place, called *meez* in kitchen slang, means everything in its place. Commit this term to memory. It refers to your workplace. In this book, it also refers to your mind, your business, and your life.

One of Anthony Bourdain's former chef colleagues had a habit of walking up to frazzled cooks in his kitchen, pressing his hand into their cutting boards, and lifting his palm to their faces. As he showed them the detritus embedded in his skin, he'd say, "You see this? That's what the inside of your head looks like now."

What does *your* mind look like?

We'll find out, and we will make it orderly.

While in Kolkata, India, for this book, I stayed at the iconic Oberoi Grand. The concierge explained to me the hotel's hiring philosophy: "You can't bend mature bamboo. But if you get it as a young shoot, you can bend it, mold it. We hire them between the ages of 18 and 21 so we can mold them." The concierge was one of only 15 double golden key (Clef d'Or) concierges in India, and he knew that sometimes having no experience is a huge advantage. Age doesn't matter; an open mind does.

This book isn't baptism by fire. It's a series of small experiments, with the occasional off-color joke and *Calvin and Hobbes* cartoon to keep you interested. The only part I consider mandatory reading, DOMESTIC, is fewer than 150 pages! Skip around and have fun.

This book is not *the* truth, but it contains many truths as I've found them, and—even if they're not your truths—the process I teach can help you find yours.

May all of your creations have just the right flavor, and may the joy of discovery be your guide.

Pura vida,

Tim Ferriss
San Francisco, California
August 24, 2012

Meta

Meta-Learning

META is where you'll learn to mimic the world's fastest learners.

It is possible to become world-class in just about anything in six months or less. Armed with the right framework, you can seemingly perform miracles, whether with Spanish, swimming, or anything in between.

Ed Cooke can memorize a shuffled deck of playing cards in 45 seconds, a feat accomplished purely through training. Ed became famous in *Moonwalking with Einstein* for coaching Joshua Foer to become the 2006 U.S.A. Memory Champion.



Daniel “Brain Man” Tammet learned to speak Icelandic in seven days.



“BILL GATES WALKS INTO A BAR . . .”: THE POWER OF OUTLIERS

“A good teacher must know the rules; a good pupil, the exceptions.”

—MARTIN H. FISCHER, PHYSICIAN AND AUTHOR

Smart Design became one of the top industrial design firms in the world by being (you guessed it) smart.

With locations in New York, San Francisco, and Barcelona, Smart Design represents clients ranging from Burton Snowboards to Starbucks. The company has also been strategic partners with OXO International since 1989. That ubiquitous line of Good Grips kitchenware with the comfy black handles? The ones that cover an entire wall at *Bed Bath & Beyond*? They made 'em.

In the documentary *Objectified*, Dan Formosa, PhD, then with Smart Design's research department, explained one of the first steps in its innovation process:

“We have clients come to us and say, ‘Here is our average customer.’ For instance, ‘Female, she is 34 years old, she has 2.3 kids,’ and we listen politely and say, ‘Well, that’s great, but we don’t care . . . about *that* person.’ What we really need to do, to design, is look at the extremes. The weakest, or the person with arthritis, or the athlete, or the strongest, the fastest person, because if we understand what the extremes are, the middle will take care of itself.”

In other words, the extremes inform the mean, but not vice versa.

That “average user” can be deceptive or even meaningless, just as all averages¹ can be. Here’s a statistician joke for your next hot date:

Person A: What happens when Bill Gates walks into a bar of 55 people?

Person B: I don’t know. What?

Person A: The “average” net worth jumps to more than a billion dollars!²

Buahaha! Not exactly Chris Rock, but the joke makes an important point: sometimes it pays to model the outliers, not flatten them into averages. This isn’t limited to business.

Take, for instance, this seemingly average 132-lb girl who ended up anything but:



The girl next door . . . kind of.

¹ Technically, arithmetic mean.

² Bill Gates's estimated net worth as of March 2012 was \$61 billion.



275-lb Mark Bell sumo dead-lifting 325 lbs, plus 160 lbs of band tension and chains at the top, for a 485-lb total. He has pulled 766 lbs in competition.

CREDIT: JIM McDONALD, SUPERTRAINING.TV

Her picture was sent to me by Barry Ross, a sprint coach who creates world-record-breaking athletes, to illustrate an ab exercise called the torture twist. He nonchalantly added on the phone: “Oh, and she dead-lifts more than 400 lbs for repetitions.”

What?!? For those of you not familiar with the dead lift, take a look at the sequence at left.

Even more impressive, she developed this otherworldly power the “wrong” way:

- Rather than train the conventional full range of motion, she utilized only the weakest range of motion, lifting the bar to knee height and then lowering it.
- Total muscular tension (actual weight lifting) was limited to five minutes per week.

This all makes our average-looking high-schooler *extreme*.

But was she an *exception*?

In the outside world, absolutely. Even in track and field, she was a freak. Had she been thrown into a study with 40 randomly selected female sprinters, she would have been a ridiculous exception. “Must have been a measurement error!” Then the baby would get thrown out with the bathwater.

But WWWBS? That is: What Would Warren Buffett Say? I suspect the Oracle of Omaha would repeat what he said at Columbia University in 1984 when mocking proponents of the efficient-market hypothesis.

First, he pointed out that, yes, value investors (devotees of Benjamin Graham and David Dodd) who consistently beat the market are outliers. Then he posed a question, which I’ve condensed:

What if there were a nationwide competition in coin flipping, 225 million flippers total [then the population of the USA], each flipping once per morning, and we found a select few [say, 215 people] who’d flipped 20 straight winning flips [flips where the result was guessed correctly] on 20 mornings?

He then continued (bolding is mine):

“Some business school professor will probably be rude enough to bring up the fact that if 225 million orangutans had engaged in a similar exercise, the results would be much the same—215 egotistical orangutans with 20 straight winning flips.

There are some important differences in the examples [of value investors] I am going to present. For one thing, if a) you had taken 225 million orangutans distributed roughly as the U.S. population is; if b) 215 winners were left after 20 days; and if c) **you found that 40 came from a particular zoo in Omaha, you would be pretty sure you were on to something.** So you would probably go out and ask the zookeeper about what he’s feeding them, whether they had special exercises, what books they read, and who knows what else. **That is, if you found any really extraordinary concentrations of success, you might want to see if you could identify concentrations of unusual characteristics that might be causal factors.**”²

Our sprint coach, Barry Ross, has a most unusual zoo. In fact, he can engineer mutants at will.

His best female distance runner has dead-lifted 415 lbs at a body weight of 132 lbs.

His youngest male lifter, 11 years old, has dead-lifted 225 lbs at a body weight of 108 lbs.

Our *extreme* high-schooler is the standard in his gym.

This naturally led me to ask: could I, a nonelite runner and an *average*, possibly replicate her results? I tried, and . . . it worked flawlessly.

In less than 12 weeks, *sans* coach and following a printout from Barry, I went from a max dead lift of 300 lbs to more than 650 lbs.³

BEING THE BEST VS. BECOMING THE BEST

As I write this, the two most-viewed freestyle swimming videos in the world are of:

1. Michael Phelps
2. Shinji Takeuchi



3 Pulling from the knees using a double-overhand grip (not hook) without wrist wraps. I could then do 475 from the floor for repetitions. See “Effortless Superhuman” in *The 4-Hour Body* for the full program description.

Phelps makes sense, but . . . who the hell is Shinji Takeuchi?

Phelps learned to swim at the tender age of seven. Shinji learned to swim at the well-ripened age of 37. More interesting to me, Shinji learned to swim by doing practically the opposite of Phelps:

- Shinji drives his lead arm forward, almost two feet beneath the water, rather than “grabbing” near the surface and pulling.
- Rather than focus on kicking, Shinji appears to eliminate it altogether. No paddleboard workouts to be found.
- Shinji often trains freestyle stroke with closed fists, or by pointing his index finger forward and keeping the arms entirely underwater.

Phelps looks like he’s attached to an outboard motor. It’s a heroic output of horsepower. Shinji has been watched millions of times because he offers the flip side: effortless propulsion.

So who would you rather have as a teacher: Phelps or Shinji?

Arthur Jones, founder of Nautilus, when asked how to gain muscular mass quickly, recommended the following (I paraphrase): Approach the biggest bodybuilder at your gym, ideally a ripped 250–300-lb professional, and politely ask him for detailed advice. Then do precisely the opposite. If the T-Rex–size meathead recommends 10 sets, do one set; if he recommends post-workout protein, consume pre-workout protein, etc.

Jones’s tongue-in-cheek parable was used to highlight one of the dangers of hero worship:

The top 1% often succeed *despite* how they train, not because of it. Superior genetics, or a luxurious full-time schedule, make up for a lot.

This is not to say that Phelps isn’t technical. Everything needs to be flawless to win 18 gold medals. It’s the people a few rungs down—the best you realistically have access to—whom you need to be wary of.

And then there is the second danger of hero worship:

Career specialists can’t externalize what they’ve internalized. Second nature is hard to teach.

This is true across industries.

As Erik Cosselmon, executive chef at Kokkari, my favorite Greek restaurant in San Francisco, said to me amid my novice questioning: “The problem with me is I’ve always been a cook. I don’t remember ever wanting to be something else.”

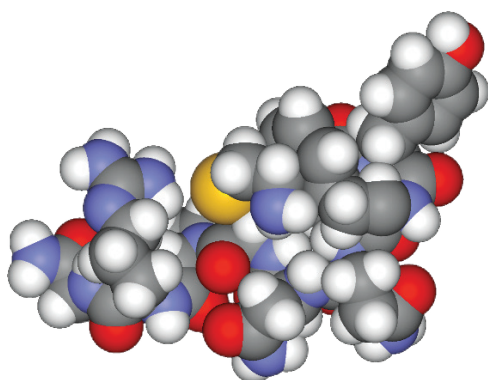
Daniel Burka, a designer at Google and the cofounder of tech start-up Milk, echoes the sentiment: “I don’t think I’d be particularly good at teaching the basics of CSS [a language used for the look and formatting of web pages⁴]. Now I do 12 things at once and they all make sense. I can’t remember which of those was confusing when I was just starting out.”

These top 0.01%, who’ve spent a lifetime honing their craft, are invaluable in later stages, but they’re not ideal if you want to rocket off the ground floor. The Shinji Takeuchis, on the other hand—the rare anomalies who’ve gone from zero to the global top 5% in record time, despite mediocre raw materials—are worth their weight in gold.

I’ve spent the last 15 years finding the Shinjis of the world and trying to model them.

⁴ Yes, I realize this is a vastly simplified definition.

INHALING HORMONES: WHAT COULD GO WRONG?



My old friend desmopressin.

My interest in accelerating learning started at a biochemical level.

In 1996, as a planned neuroscience major at Princeton University, I began experimenting with a panoply of smart drugs (nootropics) I'd imported to the U.S. under the FDA personal importation policy.⁵

After four weeks, I'd fine-tuned a routine for Mandarin Chinese character quizzes: 15 minutes prior to class, I would administer two hits of vaporized desmopressin in each nostril. Desmopressin is a synthetic version of vasopressin, a naturally occurring anti-diuretic and peptide hormone. As a nasal spray, it is often prescribed for children who bed-wet past a certain age. I was more interested in its off-label applications for short-term memory.

Putting theory into practice, it looked like this:

1. Two hits of desmopressin in each nostril.
2. Flip through characters in *Chinese Primer: Character Text* almost as quickly as I could turn the pages.
3. Score 100% on the quiz 5–10 minutes later.⁶

It was fantastically reliable.

But after a few months of testing Hydergine, oxiracetam, and combinations of dozens of other drugs, headaches set in and a thought occurred: perhaps snorting anti-diuretic hormones isn't the best long-term strategy? My dorm bathroom had also started to resemble a meth lab, which was repelling girls.

So I shifted my obsession from molecules to process.

Was it possible to develop a sequence, or a blueprint, that would allow one to learn *anything* faster? Any subject, any sport, anything at all?

I suspected so.

I'd glimpsed one piece of the puzzle four years earlier, in 1992.

MATERIAL BEATS METHOD

In 1992, I was 15 years old and had landed in Japan for my first extended trip abroad. I would be an exchange student at Seikei Gakuen high school for one year.

On the first day of classes, I reported to the faculty lounge in my required navy-blue uniform, looking like a West Point cadet. I nervously awaited my student chaperone, who would be taking me to my "home class," the group of 40 or so students I'd be spending most of my time with. One of the faculty members noticed me sitting in the corner and approached:

"Ah, *Timu-kun!*" he said with a wave. *Kun* is like *-san* but used to address male inferiors.

"*Kore wa . . .*" *This is . . .* he said as he pointed at a mysterious piece of paper. I could barely manage greetings, so he hailed an English teacher to explain the document. The page, written entirely in characters I couldn't read, detailed my daily schedule, as it turned out.

5 Not something I recommend. One mistake and you're illegally trafficking drugs, which the *Federales* frown upon.

6 If you'd like the opposite effect, go binge drinking. Excessive alcohol inhibits vasopressin release, which explains the peeing every 10 minutes followed by time travel (i.e., blacking out or forgetting everything).

The English teacher translated: “Physics, mathematics, world history, *kōbun*—ah . . . traditional Japanese,” and on it went.

Panic set in. I’d only had a few months of rudimentary Japanese prior to arrival, and my teachers in the U.S. had reassured me with: “Don’t worry, you’ll have plenty of Japanese classes!”

Now irretrievably in Tokyo, I realized I was dealing with a major *Lost in Translation* screwup. “Japanese classes” hadn’t meant language classes. For the entire year ahead, I was to attend normal Japanese high school classes alongside 5,000 Japanese students prepping for university exams! This is when I pooped my Pampers.

I proceeded to flounder horribly, just as I’d failed with Spanish in junior high. Sadly, it seemed I was simply “bad at languages.” Six months into my exchange, I was ready to go home.

Then Lady Luck smiled upon me. I stumbled upon a poster (see opposite) while looking for *The Book of Five Rings* in the Kinokuniya bookstore in Shinjuku.

This poster, which I still have on my wall 20 years later, contains all 1,945 of the *jōyō kanji* (常用漢字), the characters designated for basic literacy by the Japanese Ministry of Education. Most newspapers and magazines limit themselves to the *jōyō kanji*. For all practical purposes, this means that if you know the meaning-rich characters on the poster, you know Japanese, including all the most important verbs.

Japanese on one page! Holy shit!

Language is infinitely expansive (much like cooking) and therefore horribly overwhelming if unfiltered.

This poster was a revelation. It brought to light the most important lesson of language learning: *what* you study is more important than *how* you study.

Students are subordinate to materials, much like novice cooks are subordinate to recipes. If you select the wrong material, the wrong textbook, the wrong group of words, it doesn’t

matter how much (or how well) you study. It doesn’t matter how good your teacher is. One must find the highest-frequency material.

Material beats method.

THE GRAMMAR OF JUDO: TRANSFER

If you have no interest in politics, will you enjoy a language course that uses political articles? Of course not. You’ll get bored and quit.

The authors of most Japanese language books appeared to think that reading the *Asahi Shimbun* (Asahi Newspaper) was the only litmus test for Japanese mastery. For a high school student, and even now, reading the *Asahi Shimbun* is about as interesting as watching paint dry.

Fortunately, as long as you hit the highest-frequency material, I learned that content matters very little.

My panacea, it turned out, was judo textbooks.

Though the vocabulary (think, *ingredients*) was highly specialized, I eclipsed the grammatical ability of four- and five-year students of Japanese after two months of studying judo. Why? Because the grammar (think, *cooking methods*) was universal.

The principles transferred to everything.

圖 1 示出本發明之第一實施例。

■ 2006年10月1日起，凡在境内销售货物或提供应税劳务、服务的企业，其开具的增值税专用发票，必须通过增值税防伪税控系统开具。

[illegible]



Vital Judo: My grammar teacher.

THE MAKING OF A METHOD: 1999–2010

I came back to the U.S. after Tokyo and scored higher on the Japanese SAT II than a friend who was a native speaker. By high school graduation in 1995, I'd developed two simple lenses through which I viewed language-learning methods, and learning in general:

Is the method effective? Have you narrowed down your material to the highest frequency?

Is the method sustainable? Have you chosen a schedule and subject matter that you can stick with (or at least put up with) until reaching fluency? Will you actually swallow the pill you've prescribed yourself?

Alas, there was still one missing piece: efficiency. If effectiveness is *doing the right things*, efficiency is *doing things right*. Martin Luther King, Jr., famously remarked that “justice too long delayed is justice denied.” Learning is similar—speed determines the value. Even with the best material, if your time-to-fluency is 20 years, the return on investment (ROI) is terrible.

Though 1996 heralded itself with vasopressin and its cousins, taking me to the biochemical level for immediate payoff, it wasn't until 1999 that I returned to the hardest part, the most slippery element of the puzzle: the *method*.

The catalyst came serendipitously one evening on Witherspoon Street in downtown Princeton. I was heads-down working on my senior thesis, a sexy tome entitled *Acquisition of Japanese Kanji: Conventional Practice and Mnemonic Supplementation*, and I'd developed a phone friendship with Dr. Bernie Feria, then director of curriculum and development at the world headquarters of Berlitz International, conveniently located only miles from campus. He invited me out to a jacket-and-tie dinner, and I put on my fanciest: corduroys, an ill-fitting sports coat, and a counterfeit Polo shirt.

It was a glorious feast, and Bernie was a gracious host. He knew his languages, and the red wine flowed. We shared war stories from the linguistic trenches: lessons learned, comedic mistakes, and cultural faux pas. Bernie shared his French adventures, and I told him about the time I asked my Japanese host mother to rape me at 8 a.m. the next morning. Ah, just one vowel off! But *okasu* (to rape) was not

okosu (to wake). You’ve never seen such a confused Japanese woman.

He roared. By the time dessert came around, Bernie paused and said, “You know, it’s a shame you’re not graduating earlier, as we have a project starting soon that you’d be perfect for.”

The “project” was helping redesign their introductory Japanese curriculum, which doubled as an opportunity to revisit their English curriculum, which then accounted for 70% of their roughly 5 million lessons a year at 320 language centers around the globe.[‡]

Imagine wandering into your local guitar shop and approaching the high school intern behind the counter: “Hey, kid, how would you like to tune the London Philharmonic Orchestra? They have a live gig in Central Park next week and it’ll be broadcast into 50 countries. You in?” I felt like that kid.

I left Princeton in the middle of my senior year, just months before graduation, to pursue this love of language. I worked for Berlitz, then—itching to test new ideas immediately—traveled to Taiwan, where many of the pieces started to fall into place for “DiSSS” (coming next page).

Then I did something odd. I applied the same DiSSS process to learning kickboxing and, less than two months later, won the Chinese national kickboxing championships at 165 lbs.

Flash forward to 2005.

I had spent six years testing different approaches to natural languages. Here’s what my language acquisition times looked like in order, using standardized testing for all but Chinese:

| | |
|------------------|--------------|
| JAPANESE | ONE YEAR |
| MANDARIN CHINESE | SIX MONTHS |
| GERMAN | THREE MONTHS |
| SPANISH | EIGHT WEEKS |

Recall that, at age 15, I’d failed to learn enough Spanish to hold a basic conversation.

Now people were lauding me for being “good at languages” or congratulating me on being “gifted.” It was hysterical. I just had a better instruction manual.

In 2005, I traveled the world as a digital nomad, an experience later chronicled in *The 4-Hour Workweek*. I focused on language to conquer loneliness: Irish Gaelic, Norwegian, German, Spanish (including Lunfardo dialect in Argentina), anything I came into contact with. The refinement continued through 2010 and to the present. I’ve vetted the process on Turkish, Greek, Xhosa, and other languages over shorter 1–2-week periods.

The DiSSS process I used was effective for acquiring *declarative* “facts and figures” knowledge (e.g., memorizing serial numbers, remembering where your car is parked). It also worked incredibly well for *procedural* “action” knowledge (e.g., practicing judo, riding a bike, driving a car). It even worked for hybrids (e.g., writing Chinese characters).

None of this is said to impress you. It’s said to impress upon you that there *is* a *repeatable process*, and that hundreds of readers have replicated my results.

It is possible to become world-class, enter the top 5% of performers in the world, in almost any subject within 6–12 months, or even 6–12 weeks.

There is a recipe, the *real* recipe in this book, and that is DiSSS. Turn the page to learn the formula.

DiSSS

The recipe for learning any skill is encapsulated in this acronym.

HOW TO REMEMBER IT: Ah, the 1980s cultural contribution to modern English: *diss*. Just remember *diss* with an extra s: DiSSS. If you're a gamer and know PS3 (PlayStation 3), just think of DS3.

Here's the sequence:

D

DECONSTRUCTION

What are the minimal learnable units, the LEGO blocks, I should be starting with?

S

SELECTION

Which 20% of the blocks should I focus on for 80% or more of the outcome I want?

S

SEQUENCING

In what order should I learn the blocks?

S

STAKES

How do I set up stakes to create real consequences and guarantee I follow the program?

CaFE

There are several secondary principles that, while very helpful (I use all three constantly), are not required. Here, *CaFE* is the acronym:



COMPRESSION

Can I encapsulate the most important 20% into an easily graspable one-pager?



FREQUENCY

How frequently should I practice? Can I cram, and what should my schedule look like? What growing pains can I predict? What is the minimum effective dose (MED) for volume?



ENCODING

How do I anchor the new material to what I already know for rapid recall? Acronyms like *DiSSS* and *CaFE* are examples of encoding.

TWO NOTES BEFORE WE PROCEED

First, I've incorporated *DiSSS* and *CaFE* into this book, so you don't have to worry about them. If you're eager to get cooking, feel free to read *Stakes* (page 68) and *Compression* (page 70), and then jump straight to *DOMESTIC* on page 102.

Second, and most important, if anything gets too dense in *META* (and it might), jump to *Stakes*, read *Compression*, then skip to *DOMESTIC*. *DOM* will take you from making scrambled eggs to making \$30 restaurant entrées in 24 hours. You can always come back to *META* later, after a few early wins and high fives.

There's no rush, and feel free to jump around. You don't have to understand how the engine works (cognition) to drive the car (in this case, cook).

For those brave souls who dare enter here, turn the page to see how deep my favorite rabbit hole goes.

DiSSS DECONSTRUCTION: EXPLORING THE GREAT UNKNOWN

“Whenever you find yourself on the side of the majority, it is time to pause and reflect.”

—MARK TWAIN

“Writing a novel [or learning] is like driving at night in the fog. You can see only as far as your headlights, but you can make the whole trip that way.”

—E. L. DOCTOROW, AUTHOR

Deconstruction is best thought of as exploration. This is where we throw a lot on the wall to see what sticks, where we flip things upside down and look at what the outliers are doing differently (and what they’re not doing at all).

First and foremost, it is where we answer the question: how do I break this amorphous “skill” into small, manageable pieces?

Just as with literal deconstruction—taking a building apart, for example—you need the right tool for the job. Sometimes that is a hammer, sometimes it’s a saw, sometimes it’s both. In this chapter, we’ll look at four primary tools. Each will be explained using real-world skills for context:

Reducing: How to learn 1,945 Japanese⁷ characters.

Interviewing: How to shoot a basketball 3-pointer.

Reversal: How to build unparalleled fires.

Translating: How to dissect the grammar of any language in 1–2 hours.



Photo of “deconstructed” cheesecake, where diners can see the separate ingredients. Though I prefer the traditional version for eating, this version is far better for learning.

⁷ These characters, *kanji*, are actually borrowed from the Chinese. In 1981, there were 1,945 characters; since 2010, there are 2,136.

REDUCING: JAPANESE CHARACTERS

The ecstasy of finding my *jōyō kanji* poster was followed by the crushing task of learning, well, 1,945 characters.

That's more than 81 times the English (Roman) alphabet, and we're not talking about ABCs. The most complicated letters in English, like *E* and *W*, have four strokes. Many Japanese characters have more than **15 strokes**:



The above *gi* of *gisei* (meaning “sacrifice”⁸) has 17, and it just gets worse. Each stroke has to be in a specific order, so that you can write (and, more important, read) the equivalent of cursive. These 1,945, though finite, quickly become overwhelming.⁹

Fortunately, I was required to take a *shodō* (calligraphy) class, and I learned that each character can be broken into components: far left, top, middle, etc. These LEGO pieces, referred to as *radicals*, form the building blocks from which all *kanji* are made.

There are 214 radicals. They provide clues to both meaning and pronunciation, killing two birds with one stone. Radicals are also always written in one order: left to right and top to bottom. This all turns an impossible task—learning 1,945 characters—into one that some people can complete in less than two months.

Take, for instance, the radicals found in the character *ai*, which means love, as in “*Ai shite iru!*” (I love you):



To remember how to write this character, one might imagine “clawing” (1) through a “roof” (2) to get to a “heart” (3) that’s “running away” (4)—ah, *c’est l’amour!*

The key was peppering my calligraphy teacher with questions, which leads us to the next complementary tool: interviewing.

⁸ Which I learned in judo’s “sacrifice throw.”

⁹ In the world of cooking, such paralysis is most often induced by herbs and spices.

INTERVIEWING: SHOOTING BASKETBALL 3-POINTERS

“You’re doing a terrible job on your drink.”

Start-up veteran Babak “Nivi” Nivi was finishing his sake as I took my first sip.

We were well en route to inebriated at Eiji, a tiny Japanese restaurant tucked in between the Castro and Mission districts of San Francisco.¹⁰ Daiginjo was the perfect fuel for our discussion of odd skills and physical tracking. He had recently picked up Olympic lifting for fun, and I had a glucose monitor implanted in my side to track spikes in blood sugar. At one point, Nivi randomly offered:

“If you ever want to deconstruct basketball, I have the DVD for you: *Better Basketball*.”

Ever since my seventh grade PE teacher told me I dribbled like a caveman (I did), I’d written basketball off. So “thanks, but no thanks” was my answer to Nivi.

But lo! Three years later I found myself watching a Lakers game with my friend Kevin Rose and his fiancée, Darya, a Lakers fanatic. Their dog even had a Lakers jersey on.

I had an epiphany:

*Even if I have zero interest in playing basketball, perhaps learning the fundamentals over a weekend would allow me to love watching it.*¹¹ After all, it is the third most popular sport in the U.S.

That’s when I asked Nivi to point me to the master: Rick Torbett, the founder of Better Basketball.

Rick has coached entire teams to shoot better than 40% for three consecutive seasons. To put that in perspective, in the last decade, only one NBA team—the Phoenix Suns—came close to 40% from the 3-point line.

To dissect his unusual success, I started by e-mailing him interview questions, the answers to which I’ll share with you shortly. But let’s start with the general process.

FIRST, CREATE A LIST OF PEOPLE TO INTERVIEW

If you’re going for high-level athletics, for instance:

1. Use Wikipedia to find out who was the best (or second best, which is often ideal) in the world 5–10 years ago, or 2–4 Olympics ago, since those currently in the limelight are less likely to respond.
2. Search Google for “[My closest city][sport][Olympian or world champion or world record].” Hypothetically, I might look for “San Francisco bobsled Olympian,” which gets me to a team doctor—perfect for a first lead.

NEXT, MAKE FIRST CONTACT AND PROVIDE CONTEXT

“Do me a favor” is not a compelling pitch. The proposed interview should somehow benefit your contact.

The path of least resistance is to freelance write for a blog, newsletter, or local newspaper and do a piece on this person and his/her methods, or to quote him/her on a related topic as an expert (“Expert Predictions for Winter Olympics,” for instance). Once you’re in the door, ask your expert all the questions you’d like. Are you terrible at writing? No problem. Make it a Q&A format and simply print the relevant questions and answers.¹²

LAST, ASK YOUR QUESTIONS

When I was looking into ultra-endurance for *The 4-Hour Body*, I sent different combinations of the below questions to people like the

¹⁰ For any vegetarians who might land there, the oboro tofu is incredible.

¹¹ This logic reiterates the benefit of this book: even if you never cook, you’ll increase your enjoyment of meals.

¹² If they coach and do hourly consultations, you could also just pay for a telephone or Skype session.

legendary Scott Jurek, who won the Western States 100, a mountainous 100-mile race, a record seven times.

- “Who is good at ultra-running despite being poorly built for it? Who’s good at this who shouldn’t be?”
- “Who are the most controversial or unorthodox runners or trainers? Why? What do you think of them?”
- “Who are the most impressive lesser-known teachers?”
- “What makes you different? Who trained you or influenced you?”
- “Have you trained others to do this? Have they replicated your results?”
- “What are the biggest mistakes and myths you see in ultra-running training? What are the biggest wastes of time?”
- “What are your favorite instructional books or resources on the subject? If people had to teach themselves, what would you suggest they use?”
- “If you were to train me for four weeks for a [fill in the blank] competition and had a million dollars on the line, what would the training look like? What if I trained for eight weeks?”

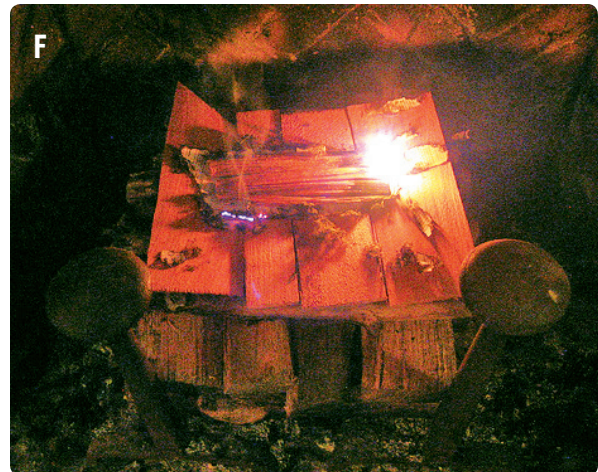
In the case of basketball, I started by sending Rick four questions related to shooting:

1. First, what are the biggest mistakes novices make when shooting or practicing shooting? What are the biggest misuses of time?
2. Even at the pro level, what mistakes are most common?
3. What are your key principles for better, more consistent shooting? What are they for foul shots (free throws) vs. 3-pointers?
4. What does the progression of exercises look like?

I received his e-mail responses and, two days later, hit nine out of 10 free throws for the first time in my life. Then, on Christmas Eve, I went bowling and realized that many of the same principles applied. I scored 124, my first time over 100 and an Everest above my usual 50–70.¹³ Upon returning home, I immediately went outside and sunk the first two 3-pointers of my life. For Lakers games with the Roses, I now see a ballet of kinesthetic beauty that was invisible before. That’s a hell of a lot of fun.

For those interested, see Rick’s 3-pointer tutorial in the Appendix on page 596.

¹³ Strangely, the basketball principles later produced a quantum leap in my handgun marksmanship—most important, that you should solve left-right deviation before worrying about long-short adjustments.



Here's what the process looks like in photos, which were taken on Christmas Day 2008. The embers this fire produces are unlike anything I've ever seen.

REVERSAL: BUILDING BETTER FIRES

How would you like to light a fire perfectly and have it burn for 3–7 hours without adding more wood? It requires forgetting everything you’ve learned about starting fires.

Now, I can make a raging furnace of epic proportions, a crackling and screaming banshee of life-giving heat . . . but it lasts for a euphoric five minutes. Then the real fun begins: the fiddling and fussing, poking and prodding every five minutes thereafter for the next hour to keep the charred remains clinging to life.

I was in the Boy Scouts and learned the ropes: tons of paper and tinder at the bottom, building upward like a tepee with the smallest kindling at the bottom and the biggest logs at the top. It’s how fires are built, right?

Let’s call this the “tepee” fire.

The alternative is the “upside-down” fire.

To learn the manliest of the manly arts, I looked to one of my most feminine readers, Marcie. She was seeking the best method of starting fires at her mountainside cabin, and the final result was as odd as it is effective.

The method is simplicity itself: do exactly the opposite of the tepee method.

1. Put the largest logs at the bottom, ensuring there is no space between them whatsoever.
2. Lay a second perpendicular layer of smaller logs on top of the largest, again ensuring there are no spaces between them.
3. Repeat with perpendicular layers until you get to the top, where you will put strips of crumpled paper and—at the very top—3–5 fire-starter squares (my preference) or fire-starter oil sticks. From bottom to top, I like to use large logs (unsplit), split logs, sapling wood, cedar shingle wood, then paper and fire-starting squares.



The finished appearance.

Prepare for much more heat. Once about 75% of the shingle wood is burned, the fire will start to give off a *lot* of heat. The flame from the top warms the air in the flue and creates a more efficient current of air for cross-ventilation, and there is little warmth wasted.

Three more benefits:

No smoke or minimal smoke. This is related to the thermodynamics of the flue air being heated faster, based on explanations I’ve read.¹⁴ No backdraft smoke into the house.

No management. Assuming you don’t have gaps between logs, the fire will burn beautifully for 3–7 hours, depending on the amount of wood used. This alludes to one potential drawback: you must start with a substantial amount of wood.

No ashes. This amazed me. It all burns down to nothing. No waste at all, as nearly every fiber is converted into heat. It’s beautiful, in fact.

There are some things to keep in mind:

1. The upside-down fire won’t look like much for about 20 minutes. Be patient. The goal is to create embers that then fall to the layer below, which is why there

¹⁴ Even for tepee-style fires, you can ensure a smoke-free start by lighting the end of a rolled up newspaper and holding it up the chimney for 10–15 seconds before lighting the fire.

cannot be any spaces between logs. Real flames take a while.

2. Ensure that the paper strips are bent or otherwise prop up the fire-starting squares/sticks so they don't lie flat on the shingles or the layer below. If you don't have this slight spacing for the fire-starting material to catch, you will have trouble lighting the fire and get frustrated. This is the only place where a little space is good.

Sometimes, whether in the world of fire-making or cooking, finding the path of least resistance is as easy as Googling “backward,” “upside-down,” or “reverse,” plus whatever skill you're deconstructing.

TRANSLATING: THE GRAMMAR OF ANY LANGUAGE

(If the language stuff gets too dense, skip to Learning to “Taste” on page 50.)

“Wer fremde Sprachen nicht kennt, weiß nichts von seiner eigenen.”

“He who doesn't know foreign languages knows nothing of his own.”

—Johann Wolfgang von Goethe

Cardinal Giuseppe Mezzofanti, born 1774, was called “the Devil” on many occasions.

The charming Italian could speak at least 39 languages and, by some accounts, had been tested in 72. As arguably the world's most famous hyperpolyglot, he was also systematic.

First, he learned languages in families.

Second, and related to deconstruction: Instead of using grammar books, he had native speakers of each language recite the Lord's Prayer. This short passage gave him an overview of nearly all important grammatical structures (direct object, indirect object, noun cases, possessives, etc.):

Our Father, who art in heaven,
Hallowed be Thy Name.
Thy Kingdom come.
Thy will be done
On Earth as it is in heaven.
Give us this day our daily bread.
And forgive us our trespasses,
As we forgive those who trespass against us.
And lead us not into temptation,
But deliver us from evil.¹⁵

I have used a nearly identical approach for decades: a 12-sentence audit.

By simply asking, “How do you say [sentence] in your language? Would you mind writing that down?” I can uncover the soul of a language and estimate how long it would take me to learn it. Pictures A and B on the opposite page tell the story of a Ukrainian woman who taught me Cyrillic in 30 minutes, and the whole conversation was two hours long.

Here are the 12 sentences, the “Deconstruction Dozen”:

The apple is red.
It is John's apple.
I give John the apple.
We give him the apple.

He gives it to John.
She gives it to him.

Is the apple red?
The apples are red.

I must give it to him.
I want to give it to her.
I'm going to know tomorrow.
(I have eaten the apple.)¹⁶
I can't eat the apple.

The benefits of these few lines can be astonishing.

¹⁵ Prayer edited to reflect the Catholic version as it would have been in the 18th and 19th century (though translated into English).

¹⁶ This is a bonus 13th, to be explained later.

I was once en route to Istanbul and did the 12-sentence audit with a friendly Turk across the aisle. There was a layover before my connecting flight, and I wandered over to a Rosetta Stone language kiosk. I asked if I could try their Turkish demo, which the woman was kind enough to let me test-drive for 15 minutes. I skipped to a Level 3 test, which is intended to be taken after 120–150 hours of study, and scored more than 80% correct. In addition to saving me time, that 30-minute, 12-sentence audit saved me \$399.

Not bad, right? Keeping things as simple as possible, I'll explain the last five sentences, which have the greatest application to other fields, including cooking.

Get ready . . . this is important.

THE IMPORTANCE OF HELPERS (AND EARLY WINS)

Remember learning how to conjugate verb tables in high school? I do. It was horrible.

Let's look at one example: "To eat." The English "I eat, she eats, we eat" is "*mangio, mangia, mangiamo*" in Italian. Now expand that to a typical 2–4-page list of variations (one measly verb out of thousands!) and it feels like an insurmountable task.

In reality, most people aren't "bad" at languages. They're bad, like me, at memorizing boring, zero-gratification tables that make DMV forms look sexy.

This is where helping verbs (auxiliary verbs) come in. Thank God. If I hadn't discovered them, I never would have learned any languages. They're the ultimate cheat.

By memorizing a few verbs in a few tenses, you get access to *all* verbs. It opens up the entire language in a matter of 1–2 weeks.

To illustrate, let's look at simplified versions of my four primary sentences with Italian. Just notice that the verb (*mangiare*) doesn't change:

I must eat. → *Ho bisogno di mangiare.*

I want to eat. → *Voglio mangiare.*

I'm going to eat tomorrow. → *Vado a mangiare domani.*

I can't eat. → *Non posso mangiare.*

[Literally: I am unable to eat.]

All I need to memorize are the conjugations for a few verbs—to have, to want, to need, etc.—and I can slap the infinitive or *to* form of any other verb on the end (I want *to eat*, I'm going *to read*, I need *to drink* water, etc.).¹⁷

If you learn the auxiliary verbs in your target language, plus the all-important *to be*, *to have*, *to do*, and *to go*, you can very quickly express any idea.¹⁸ Just see the chart at right.

Imagine me teaching you soccer through books. I insist you memorize the physics of each possible shot, over 1–2 years, before we get on the field. How will you do? Well, first, you'll likely quit before you ever touch a ball. Second, when you get on the field, you'll have to start from scratch, turning that paper knowledge into practical knowledge.

Looking for the helping (auxiliary) verbs in any skill—those magical crutches that allow you to kick the ball as early as possible—is fundamental to becoming a learning machine.

The grammar of cooking, as we'll see in the next chapter, has exactly three "helping verbs" that will put everything into hyperdrive.

17 I can't hold back on one more tip: to start, you can just learn the *I* and *you* (first- and second-person) conjugations, as you will be using those more than 80% of the time.

18 FOR NERDS: What about that bonus line in parentheses? It was: *I have eaten the apple*. The present tense of "to have" is particularly important, as it also buys us a simple version of the past tense. For example: **I have eaten.** → *Ho mangiato*. Once I know even *ho* (I have) and *hai* (you have), I can ask and answer almost any past-tense question. For instance: Did you understand? *Hai capito?* In "*Hai capito?*" *capito* (from *capire*, to understand) is called the *past participle*, and you can learn the rules for these in an afternoon—*voilà*, past tense for all verbs! To practice this all-important "to have" as much as possible, I customized another one of my helper sentences. There are quite a few ways to translate "I must eat" in Italian, but I selected one that includes "to have"—"I have need of eating/to eat."

KICK-STARTING NINE LANGUAGES WITH FOUR SENTENCES

| | I MUST EAT. | I WANT TO EAT. | I'M GOING TO EAT TOMORROW. | I CAN'T EAT. |
|---------------------|--|--|--|---|
| SPANISH | Tengo que comer. <i>I-have that to-eat.</i> | Quiero comer. <i>I-want to-eat.</i> | Voy a comer mañana. <i>I-go to to-eat tomorrow.</i> | No puedo comer. <i>I cannot to-eat.</i> |
| GERMAN | Ich muss essen. <i>I must to-eat.</i> | Ich möchte essen. <i>I want to-eat.</i> | Ich werde morgen essen. <i>I going tomorrow to-eat.</i> | Ich kann nicht essen. <i>I can not to-eat.</i> |
| FRENCH | Je dois manger. <i>I must to-eat.</i> | Je veux manger. <i>I want to-eat.</i> | Je vais manger demain. <i>I will to-eat tomorrow.</i> | Je ne peux pas manger. <i>I no can't to-eat.</i> |
| JAPANESE | Taberu hitsuyoo ga aru. 食べる必要がある。 <i>To-eat necessity there is.</i> | Tabetai. 食べたい。 <i>Want-to-eat.</i> | Ashita taberu. 明日食べる。 <i>Tomorrow to-eat.</i> | Taberu koto ga dekinai. 食べることができない。 <i>To-eat thing cannot.</i> |
| CHINESE (MANDARIN) | Wǒ yào chī. 我要吃 <i>I must eat.</i> | Wǒ xiǎng chī. 我想吃 <i>I want eat.</i> | Wǒ míngtiān huì chī. 我明天会吃 <i>I tomorrow will eat.</i> | Wǒ bù néng chī. 我不能吃 <i>I not can eat.</i> |
| CHINESE (CANTONESE) | Nghoh yat ding yiu sik. 我一定要食。 <i>I must eat.</i> | Nghoh seung sik. 我想食。 <i>I think eat.</i> | Nghoh jyen bei ting yat sik. 我準備聽日食。 <i>I plan tomorrow eat.</i> | Nghoh mh neng gau sik. 我唔能夠食。 <i>I can't eat.</i> |
| RUSSIAN | Ya doljen yest. Я должен есть. <i>I must to-eat (male).</i> Ya doljna yest. Я должна есть. <i>I must to-eat (female).</i> | Ya hochu yest. Я хочу есть. <i>I want to-eat.</i> | Ya budu yest zavtra. Я буду есть завтра. <i>I going to-eat tomorrow.</i> | Ya ne mogu yest. Я не могу есть. <i>I not can to-eat.</i> |
| ARABIC | Min al-lâzim an âkula. لأن أأكل <i>It is imperative that I eat.</i> | Urîdu an âkula. أنا أريد أن أأكل <i>I want to eat.</i> | Sa-âkulu ghadan. أنا سأأكل <i>I will eat tomorrow.</i> | Lâ astatî u an âkula. لأنني أستطيع أن أأكل <i>I cannot eat.</i> |
| DOTHRAKI | Anha'th adakhak. <i>I must to-eat.</i> | Anha zalak adakhak. <i>I want to-eat.</i> | Anha vadakhak silokh. <i>I will-eat tomorrow.</i> | Anha laz vos adakhok. <i>I can not to-eat.</i> |

ASSIGNMENT: LEARNING TO “TASTE”

“Nothing would be more tiresome than eating and drinking if God had not made them a pleasure as well as a necessity.”

—VOLTAIRE

“Is this basil?”

“No.”

“This is . . . basil?”

“No.”

“What is this?”

“C’mon, you know this.”

“No, I don’t.”

“It’s basil.”

Basil. I must have asked my girlfriend 20 times on 20 occasions if the herb I was eating was basil. I just couldn’t remember the goddamn plant. Smell it, taste it, draw it—nothing worked. She found it rather amusing, cute even, kinda like that kid in *Jerry Maguire*. “Did you know the human head weighs eight poundthz?!” Ha.

I found it infuriating.

Like many people, I’d watched the Food Network for 1–2 hours a night after work to unwind, but I’d never made a single dish. Now that I was going to be *using* ingredients, I needed to be able to recall them like song lyrics. I needed a *working* vocabulary.

I started with the most basic of basics, which, I’ll admit, I had to look up.

Herbs? Herbs are from the leaves and stems of plants.

Spices, on the other hand, are from the root, bark, and seeds.¹⁹

Looking for data to soothe my ego, I found out that I wasn’t alone. Flavor illiterates are everywhere. In 1986, *National Geographic* sent out scratch-and-sniff samples to subscribers, asking them to categorize six common odors, and 1.4 million people responded. The *best* performers—young adults—averaged barely over 50% correct. Women scored slightly higher than men, but everyone was piss poor.



¹⁹ Bonus: Nuts are fruits from trees, except peanuts, which are seeds from underground legumes.

WHAT WORKED FOR ME

Out of dozens of approaches I tried, there were only a few that actually helped me learn flavors. I suggest the following in order, but feel free to dabble:

1. **Smell food like a dog.**
2. **Literally deconstruct your food.**
3. **Leverage non-tongue taste.**
4. **Isolate the basics.**
5. **Try unusual food combinations.**

1. SMELL FOOD LIKE A DOG

Let's try an experiment. Get a few jelly beans of different flavors: cherry, root beer, coffee, whatever. Avoid anything with strong sour or hot characteristics. Now close your eyes, pinch your nose shut, and eat them one at a time. Try to guess the flavors.

If you prefer, get two glasses of wine, one white and one red, and repeat the drill.

Either way, it will be very, very hard.

As scientists at the Oxford Symposium on Food and Cookery put it in 2000:

Although there is disagreement on the exact number of taste qualities, everyone acknowledges that the number is small. The usual list includes sweet, sour, bitter, salty, and umami (*Physiology and Behavior*, 1991). So, if taste were synonymous with flavour, the number of flavour experiences would be limited as well. Beef would be interchangeable with lamb. In terms of taste alone, raspberry, mango, grape, and peach would all be sweet, tart, and difficult to distinguish from one another. It is the odor component that makes their flavours unique and gives a seemingly endless variety of flavour experiences.²

Flavor is, counterintuitively, less than 10% taste and more than 90% smell. The numbers tell the story:

Taste qualities = five

Scents = 10,000 +

Of the taste qualities, you might not recognize *umami*, sometimes called *savory* or *brothy*. Professor Kikunae Ikeda of Tokyo Imperial University isolated umami as glutamic acid while studying kombu, giant Japanese sea kelp. He commercialized this finding as monosodium glutamate (MSG), but you need not eat headache powder to taste the wonder (and healthfulness, when organic) of umami. Tomatoes, parmesan, and chicken broth all have high glutamate content. There are also mimics: shiitake mushrooms have umami-like nucleotides that allow them to impart a similar taste.

But back to scents:

1. Before you scarf down your food like a hyena, pause and sniff a few inches above each item on your plate. For bonus points, open your mouth slightly as you do so to engage the *retronasal* pathway.²⁰ Smell each forkful, if you prefer, but I find that the face-in-the-plate approach provides more clarity.
2. If you tend to have a stuffed nose or chronic sinus infections, as I did for years, start using a ceramic neti pot before bed and upon waking.

Even if you never cook, smelling your food before eating it will radically change how you experience flavor.

20 "To be perceived, flavour molecules need to reach the olfactory epithelium, located in the nasal cavity. This can be achieved through orthonasal (sniff) or retronasal (mouth) airways." *Flavour and Fragrance Journal*. 2004;19: 499–504.

2. LITERALLY DECONSTRUCT YOUR FOOD

I used to collect comic books. Perhaps you collected baseball cards or stamps. Now you need to start collecting flavors. The problem: dishes do not isolate flavors.

The solution is to break them down.

I did this for the first time at ABC Kitchen in NYC. After perusing the menu and asking the server, as I always do, “What have you had for lunch the last three days?” I chose a few appetizers based on her responses. Next—and this was the new part—I asked her to bring out a small amount, even a single leaf, of any unfamiliar ingredients, to taste alone before having them in complete dishes.

This is what she brought:

- Anise hyssop (from a dish of raw diver scallops with chiles and lime).
- Sage (from a chicken liver dish—fried in soy and salt, I later learned).
- Chervil (from the beet and yogurt salad).
- Nasturtium, an edible flower (from a vinaigrette used with steamed hake—a dish I didn’t order, but after polite pleading the server kindly brought me the flower).

Each pinch arrived on a small, circular bread plate. It was no sweat for the kitchen, but it signified a *huge* leap forward for me. Then, I *layered* my tasting of each dish. This is a critical concept. For instance, I tasted the chicken liver in a progression of increasing complexity, in this order:

- Sage leaf by itself (as it was my highest-priority flavor to isolate).
- A small dab of chicken liver pâté by itself.
- Chicken liver on a small piece of the bread.
- All of it together.
- Salt alone, pepper alone, then salt and pepper added to the above. (Never salt your food before tasting it.)

Though it reads like a lot, it took place within a square foot and required less than two minutes. If you can’t identify a mysterious flavor, as I couldn’t with the soy coating on the sage, ask your server. They like people who care.

Deconstructing in this fashion was like pressing fast-forward on developing a palate.

Suddenly, the vague blend of flotsam and jetsam that I’d enjoyed as “meals” in the past, perhaps as “chicken cacciatore” or a similar label, became combinations of line items.

For each target flavor (usually an herb), I collected an anchor dish. I couldn’t really remember an herb in isolation (e.g., *This is the flavor of rosemary*), but I could perfectly remember the flavor of the herb if I associated it in my mind with a single representative dish (e.g., *This is rosemary, the flavor you had with rack of lamb*). Cilantro? Vietnamese pho noodles. Chives? Sour-cream-and-chive potato chips. Cloves? Christmas tea. And so on.

Despite my great success with deconstruction, there were really tough items, like basil, that required one more technique: non-tongue taste.

3. LEVERAGE NON-TONGUE TASTE

This epiphany took place at the Oberoi Grand, in Kolkata, India.

I had taken a Bengali cooking class the day before, and I was having an existential crisis over my iced tea. Why the hell couldn’t I isolate and remember a few key ingredients, like turmeric, cardamom, and cumin? I asked the waiter if he could bring out a side dish with two pinches of each; I’d try deconstruction again.

It didn’t work. To escape this frustration, I went to my e-mail in-box, where I found a note from researchers at the Monell Chemical Senses Center, in Philadelphia, who’d been introduced to me by my friend and fellow experimenter A. J. Jacobs. Leslie Stein, PhD, and Marcia Pelchat, PhD, had once again proven invaluable. In their message, I found a few choice lines:

"Not all taste buds are located on the tongue. Some are found on the roof of the mouth and in the throat. . . . Taste receptors are also found in the lining of the intestine, suggesting that our concept of the sense of taste should include these chemical-sensing systems."

This is when the lightbulb went on. Jumping online, I started digging and found more: There are taste cells and receptors in the small intestine. And in 2006, glutamate receptors were identified in the stomach.

Maybe doing what I had been doing—rolling herbs in my fingers, smelling them, moving them around my mouth—was akin to listening to your favorite song with one ear and no bass. Perhaps I wasn't flavor-deaf. Perhaps I wasn't using enough of my body.

So I waved down a waiter to help me test Plan B:

- I asked for one cup of hot water for tea, and three extra cups.
- I cut or smashed the target herbs and spices into little bits, keeping them separate.
- I put each small pile in its own cup.
- I started with the usual: roll in the fingers, smell, taste on tongue.
- Then I poured a little hot water (about ¼ c) into each cup and swirled it around. I let things steep for a few minutes.
- Last, I took small sips of each, swishing it around my mouth like fine wine, even aerating it (that annoying air-sucking sound wine drinkers make), and finally swallowing it.

It worked like a charm. For the first time, I "got" a few spices on their own. The volume is turned down with water, but you hit more areas—like stereo sound versus mono—so I found the resolution higher.

If you are tackling a tough flavor, throw your whole body into tasting. The tongue is just one part of the equation.

4. ISOLATE THE BASICS: TASTES, SENSATIONS, FLAVOR PROFILES

Combine one cup of water with each of the below, and sip to better identify the different taste qualities:

Tastes:

Sweet — Table sugar or other sweetener.

Sour — Ideally, "sour salt" (citric acid),²¹ as it's odorless, but lemon juice or vinegar will do the job.

Bitter — Tonic water (quinine).

Salty — Various types of salt: table salt, kosher salt, sea salt.

Umami — Human breast milk.

What's that? You don't have human breast milk on hand? A little MSG will work. Barring that, try dashi (or its constituent parts, kombu seaweed or bonito flakes), mushrooms, or the little white crystals on good ol' Parmigiano-Reggiano.

Sensations:

Astringency — Think of this, for now, as synonymous with "tannins." It's the cotton-mouth feeling you know. Try sipping over-brewed black tea (two packets steeping for 15 minutes) or eating underripe persimmons.

Hotness — Try Anaheim peppers or, if you're macho, jalapeño. If you're straight-up masochistic, chomp habaero.

I was once invited to a rather fancy cocktail party in San Francisco, held at a billionaire's house. The front walkway was flanked by an Aston Martin and an Audi S5 with a modified Lamborghini engine inside. I rolled up to the valet in my supa' fly 2004 Volkswagen Golf and bounced out with a bottle of pickled vegetables under one arm and a carrot in my mouth (I was starving and had bought them en route). "Hello, gents!" I said to the line-backer-like security guards, who, after much confusion, led me inside.

21 Available at GNC, it can be used in place of lemon juice on food, to prevent fruit from browning, or to keep your glasses clear in the dishwasher (I T should do it).

Now among three-piece suits, I mingled and had a jolly ol' time, wine in one hand, pickled veggies in the other.²² Then, mid-conversation, I felt a little funny. Suddenly, I felt a lot funny. Looking down at my hand, I saw a half-eaten haba­nero, which I'd chomped and swallowed without looking. "I gotta go," I said to my unnamed drinking partner, and made a beeline through the kitchen doors. As I barged in, the caterers stood bewildered, staring at me. Tears were streaming out of my eyes. "I... need... whole milk! Please!!!" I stammered, dropping the haba­nero on the counter as evidence. Then, without a word, I pulled open the fridge and started chugging 2% milk. The mouthful of cream I drank next sealed the deal and got me back to normal within five minutes.

All that is to say: use fat, not water, to counter hotness. Capsaicin is fat-soluble.

Flavor profiles:

Last, play with foodpairing.be, which is based on the Volatile Compounds in Food (VCF) database. The objective is to start thinking about how to mix and match foods based on similar *characteristics*.

Don't have saffron? On their site, you'll learn that you can replace it with, oddly enough, tarragon. Ran out of sage? No problem; use rosemary instead. Both contain eucalyptol, so your dish should turn out similarly. Wondering what the hell will go with the leftover cucumber and grapes? Try the various cucumber soup recipes they have links to. Ran out of lemongrass, or don't want to bother buying it in the first place? Type it in and you'll learn that you can combine a little lemon peel, ginger, and basil to reconstruct the basic lemongrass flavor. Pretty damn cool.

5. TRY UNUSUAL FOOD COMBINATIONS. ASK "WHY DOES IT WORK?"

There's a concept in Zen Buddhism called "beginner eyes," which means to look at something as if you're seeing it for the first time. No matter how many times you've eaten meatloaf or sweet-and-sour chicken, picking out the specifics takes practice. Does it need more salt? A little acid? What?

As a cook, you'll have to start asking, "Why does this work?" or "Why doesn't this work?" a lot.

I found this hard to do with dishes I'd eaten dozens of times. My taste buds were too close to the problem. It was a lot easier with combos I had no reference point for. This became clear when an Indian friend suggested mango with cayenne pepper. It sounded disgusting until she walked me through it (this progression should look familiar):

"Try the mango alone." (Delicious.)

"Shake on some cayenne powder and try again." (Wow, even more delicious.)

"Now put on some sea salt." (Incredible and by far the best.)

This sharpened my perception of hotness as it contrasted with sweetness, and the use of salt to bring out flavors. I needed something weird to get me there. The oddness also made this anchor meal nearly impossible to forget.

Here are some unusual combos to start with. Why do they work?

- Cinnamon and chile powder on vanilla ice cream.
- Olive oil on chocolate ice cream (bonus point: put an olive oil-fried sage leaf on top).
- Cinnamon on bacon.
- Almond butter on hamburger.
- Black pepper on watermelon.
- Mustard on black-eyed peas.
- Cinnamon on grilled pineapple (a favorite in *churrascaria*, grilled meat restaurants in Brazil).

²² Yes, I know this isn't normal.

Once you've tested the odd, you can introduce traditional taste pairings, like beef and horseradish or orange and fennel.



Adding to the flavor collection: turkey testicle soup, courtesy of Hillside Supper Club.

ZE HERBS — A SHORT LIST

"Marjoram, [Mario Batali] said on another occasion, has the oily perfume of a woman's body: 'It is the sexiest of the herbs.'"

—BILL BUFORD, *HEAT*

In *Culinary Artistry*, authors Andrew Dornenburg and Karen Page asked a number of famous chefs the question, "If you could only take 10 ingredients with you to a desert island, which would they be?" Below are some of their herb-specific answers, as well as responses from chefs I asked the same question of. Those without attribution are ones that showed up more than a few times:

- **Rosemary** (Alice Waters)
- **Smoked paprika** (Mark Bittman, Erik Cosselmon)
- **Thyme** (considered the most versatile by many chefs; one of the most universally liked by diners)
- **Chiles** (Jean-Georges Vongerichten)
- Basil (Gary Danko, Bradley Ogden)
- Marjoram (Mario Batali; this one also pairs well with brains, if that's someday relevant to you. Use sparingly.)
- Chives (my favorite green garnish)
- Lemongrass (Personally, I think the choking hazard isn't worth the flavor. Ditto with bay leaves.)
- Chervil (Odd fact: can be smoked like marijuana for similar effects, or so I've been told.)

Those bolded above are my personal favorites. Rosemary and thyme can be steeped in hot water for delicious tea, so I don't have to watch leftovers decompose. Smoked paprika is canned and will last forever.

Di S S S SELECTION: 80/20 AND MED

“Do as little as needed, not as much as possible.”

—HENK KRAAIJENHOF, COACH OF MERLENE JOYCE “QUEEN OF THE TRACK” OTTEY, WHO WON 23 COMBINED MEDALS AT THE OLYMPIC GAMES AND WORLD CHAMPIONSHIPS

“That’s it?” my dad had asked me.

“That’s it,” I replied with a smirk. My recommendation seemed too simple to work: eat 30 grams of protein within 30 minutes of waking up, no more. I suggested—actually, insisted—that he make no other changes to his diet or exercise.

After four weeks, we tallied the results. His average monthly fat loss had gone from roughly 5 lbs to 18.75 lbs, a 275% increase. He’d tripled his fat loss by spending less than two minutes consuming a protein shake each morning. Astonishing? Not really. I’d seen the pattern in the data across hundreds of people: simple works, complex fails.

The lowest volume, the lowest frequency, the fewest changes that get us our desired result is what I label the **minimal effective dose (MED)**. It’s a broad concept that applies to almost any field. Here are a few eclectic but tested examples:

- Fat loss MED = consume 30 g of protein within 30 minutes of waking up. Dozens of readers have lost 100+ lbs each; thousands more have lost 10–100 lbs.
- To overcome female weight-loss plateaus, MED = five minutes of kettlebell swings, three times per week. Tracy Reifkind, for

example, lost 120+ lbs as a 40-something mother of two.

- To gain 10–30 lbs of lean tissue in one month, MED = 90–120 seconds of tension for most muscles. Slow-cadence lifting (five seconds up, five seconds down) with these parameters helped me add 34 lbs of lean mass in 28 days.²³
- Master conversational fluency in any language, MED = learn 1,200 words, focusing on highest frequency.
- The marketing MED = Read Kevin Kelly’s article “1,000 True Fans.”

To reiterate what we’ve already covered: material beats method.

The 20-volume *Oxford English Dictionary, Second Edition*, contains full entries for 171,476 words in current use. If we include colloquial and derivative terms, the word count easily tops 250,000. Crikey. At the end of this chapter, I’ve listed the 100 most common words in written English. It’s a drop in the bucket, a mere .06%, or 6/100ths of 1%, of the 171,476 total.

Yet the first 25 words on my list make up roughly 33% of all printed material in English.

²³ See “From Geek to Freak” in *The 4-Hour Body*.

The first 100 comprise 50% of all written material. If we were to expand the list to the top 300, they would make up about 65% of all written material in English.

What you need to remember: 100 well-selected words give you 50% of the practical use of 171,476 words.

So, do you work from A to Z through 250,000 words over 25+ years, or do you master this high-frequency 100-word list in less than a week, then decide on next steps? Clearly, you do the second.

We should remember the warning of the wise Grail knight in *Indiana Jones and the Last Crusade*:

“You must choose, but choose wisely, for as the true Grail will bring you life, the false Grail will take it from you.”

Choose the highest-yield material and you can be an idiot and enjoy stunning success.

Choose poorly and, as the Grail knight implied, you’re screwed no matter what. You’ll chase your own tail for years.

How do we choose wisely for cooking?

1. Grilling
2. Sautéing
3. Braising

These become your auxiliary verbs. Next, we evaluate each through the lens of Buffett’s “margin of safety” and reorder them. The method that is most forgiving—braising—goes first, because early wins are paramount.

The order of learning then becomes:

1. Braising
2. Sautéing
3. Grilling

These will be taught as universal principles that apply:

- Make one braise and you can make them all.
- Sauté one dish and you can sauté them all.
- Grill one fish and you can, to a degree (get it?), wing it and get it right.

THE MED OF COOKING: TECHNIQUE OVER RECIPES

Remember our helper (auxiliary) verbs (page 48)?

Roughly 14% of the 171,476 words listed in the full *Oxford English Dictionary* are verbs.[‡] This means there are approximately 24,007 verbs in English, which can be unlocked with 6–12 helper verbs.

In the same way that auxiliary verbs give access to all verbs and unlock the grammar of language, a few cooking methods unlock all ingredients and cuisines.

In their wonderful book *Culinary Artistry*, Karen Page and Andrew Dornenburg asked several dozen world-class chefs which three cooking techniques they’d choose if they were limited to those three for the rest of their lives.

For cooking methods, the most popular (as also confirmed by my interviews) were as follows:

DISTILLING TO THE FEWEST MOVING PIECES

Braising, as our first example, typically involves the following steps:

1. Brown the outside of the meat, then remove.
2. Sauté mirepoix (carrots, onions, celery) in the same pan.
3. Return meat to pan.
4. Add enough liquid to cover $\frac{1}{3}$ – $\frac{2}{3}$ of the meat.

Much like Toyota removed steps to make “lean manufacturing” a groundbreaking new standard in car production, we can eliminate steps one and two. If we choose our recipes well, we’ll still end up with delicious results. This takes us from 7–10 discrete tasks (cutting prep, browning, moving ingredients between pans, etc.) to 1–4 tasks and reduces all of our “tripping points”: time, cleaning, and overall beginner stress.

This simplification should at least double our *compliance rate*: the percentage of people who make this dish more than once.

Whenever I read a “simple” recipe, my first question is: can I use half the ingredients and half the steps and get something some people will not just love, but perhaps even *prefer*?

Sure. For one thing, you can afford better ingredients if you’re buying fewer of them. Reduction, much like with sauces, can concentrate flavor. In comic book penciling, there’s an expression, “When in doubt, black it out.” Here, the same applies: when confused and overwhelmed, remove ingredients or steps.

The best method for you is the method you’ll use more than once. The best method is the one you use many times because it’s easy, the same method you’d recommend to friends to help them reduce stress.

You don’t need more recipes. You need to learn to cook without them.

THE 100 MOST COMMON WORDS IN WRITTEN ENGLISH[‡]

Dr. Seuss (Theodor Seuss Geisel) wrote *The Cat in the Hat* using only 236 different words. Later, to win a bet with his editor, he wrote *Green Eggs and Ham* using just 50 words.

What can you do with the below 100?

- | | | | |
|----------|-----------|------------|-------------|
| 1. the | 26. they | 51. when | 76. come |
| 2. be | 27. we | 52. make | 77. its |
| 3. to | 28. say | 53. can | 78. over |
| 4. of | 29. her | 54. like | 79. think |
| 5. and | 30. she | 55. time | 80. also |
| 6. a | 31. or | 56. no | 81. back |
| 7. in | 32. an | 57. just | 82. after |
| 8. that | 33. will | 58. him | 83. use |
| 9. have | 34. my | 59. know | 84. two |
| 10. I | 35. one | 60. take | 85. how |
| 11. it | 36. all | 61. people | 86. our |
| 12. for | 37. would | 62. into | 87. work |
| 13. not | 38. there | 63. year | 88. first |
| 14. on | 39. their | 64. your | 89. well |
| 15. with | 40. what | 65. good | 90. way |
| 16. he | 41. so | 66. some | 91. even |
| 17. as | 42. up | 67. could | 92. new |
| 18. you | 43. out | 68. them | 93. want |
| 19. do | 44. if | 69. see | 94. because |
| 20. at | 45. about | 70. other | 95. any |
| 21. this | 46. who | 71. than | 96. these |
| 22. but | 47. get | 72. then | 97. give |
| 23. his | 48. which | 73. now | 98. day |
| 24. by | 49. go | 74. look | 99. most |
| 25. from | 50. me | 75. only | 100. us |

DiSSS SEQUENCING: THE MAGIC OF PROPER ORDERING

“His first question when we sat down to lunch was, ‘When you go to pee in a restaurant urinal, do you wash your hands before or after you pee?’

I was stunned. ‘Afterwards, sir.’

He looked at me sourly. ‘That’s the wrong answer. You’re a conventional thinker and not rational. I always wash before rather than after.’”

—BARTON BIGGS, INVESTOR, IN *HEDGEHOGGING*²⁴

My first visit to the American Kickboxing Academy to train with Dave Camarillo was memorable.

Not because his technical abilities are amazing (which they are), and not because elite judoka fear him on the ground and top jujitsu players fear him on his feet (both true), but because his students were uniformly difficult to deal with.

Sure, you have the UFC champions like Cain Velasquez and soon-to-be champions, who travel to San Jose, California, from around the world to be engineered by the Camarillo machine and the magic touch of Javier Mendez.

But I found the lesser mortals even more impressive.

Blue belts, with far less experience than me, were throwing arm bars from angles I’d never seen and exhausting me from postures I couldn’t break. At first, I assumed it was one or two standouts. No such luck. I began to spot patterns—first principles—that his disciples had wired into their DNA, like marines reassembling guns blindfolded. The positions were the same, pressure was applied in the

same places, and each input was paired with its desired output. The 230-lb guys weren’t brute forcing things like I expected—they were attempting to fine-tune in the same way that the 130-lb players had to. Something here was different.

His students were infuriatingly *reliable*.

In contrast, most world-famous black belts, often world-class athletes, teach a hodgepodge of random techniques. Daily classes are submissions du jour that leave students to assemble the puzzle themselves. Some succeed, but the vast majority fail. At the very least, students plateau for months or years at a time.

There is no system, no clear progression.

Dave had what other coaches didn’t:

a logical sequence.

THE (NEGLECTED) FINE ART OF SEQUENCING

Stan Utley, a short-game (think: putting) golf guru, explains the first distinction we’ll make:

“*Form* refers to things like grip, stance, and balance. *Sequence* refers to the order the

²⁴ Biggs is recounting his 1964 interview with the legendary hedge-fund manager Alfred Jones. Jones had, at that time, averaged 28% compounded annual returns for nearly a decade.

parts move in. A lot of times, people will think they have poor form, when in fact it's their sequencing that's off."[‡]

Nowhere is this truer than in a fluid movement like swimming. Despite having grown up five minutes from the beach, I could never swim more than two laps in a pool. This was a lifelong embarrassment until I turned 31, when two catalysts changed everything.

At the end of January 2008, a friend issued me a New Year's resolution challenge: he would go the rest of 2008 without coffee or stimulants if I trained and finished an open-water 1-km race that same year. That created **stakes**, which I'll explain in the next chapter.

Months after this handshake agreement, after many failed swimming lessons and on the cusp of conceding defeat, a former non-swimmer, Chris Sacca, introduced me to Total Immersion (TI). You might recall this as Shinji Takeuchi's preferred method. Total Immersion offered one thing no other method appeared to, just as Dave Camarillo differentiated himself: a well-designed progression.

Each exercise built upon the previous, and failure points like kickboards were completely avoided.

The first sessions might include kicking off a wall in 4 feet-deep water and practicing gliding in a streamlined position for 5–10 feet, at which point you simply stand up. Practicing breathing came much, much later; and learners of TI, by design, dodge that panic-inducing bullet when they most need to: in the beginning. The progression won't *allow* you to fail in the early stages. There is no stress.

The skills are layered, one at a time, until you can swim on autopilot.

In my first instructor-less workout, I cut my drag and water resistance at least 50%, swimming more laps than ever before. By the fourth workout, I had gone from 25+ strokes per 20-yard length to an average of 11 strokes per 20-yard length. In other words, I was covering more than twice the distance with the same number of strokes, expending less than half the effort.

For the first time in my life, I felt better after leaving the pool than before getting in. Unbelievable.

Within 10 days, I had gone from a two-length (18.39 m/2 x 20 yards) maximum to swimming more than 40 lengths per workout in sets of two and four.

Several months later, having never met a coach, I drove to my childhood beach after a cup of coffee and a light breakfast. I calmly walked into the ocean, well past my former fear-of-death distance, and effortlessly swam just over 1 mile—roughly 1.8 km—parallel to the shore. I only stopped because I'd passed my distance landmark, a beachfront house. There was no fatigue, no panic, no fear—nothing but the electricity of doing something I'd thought impossible.

I felt like Superman.

That's *exactly* how I want you to feel with any skill you tackle, including cooking.

HOTLINES AND MAYONNAISE: WHEN SIMPLE ISN'T SIMPLE

Let's learn a phone number. Start with this: 305-503-0846.

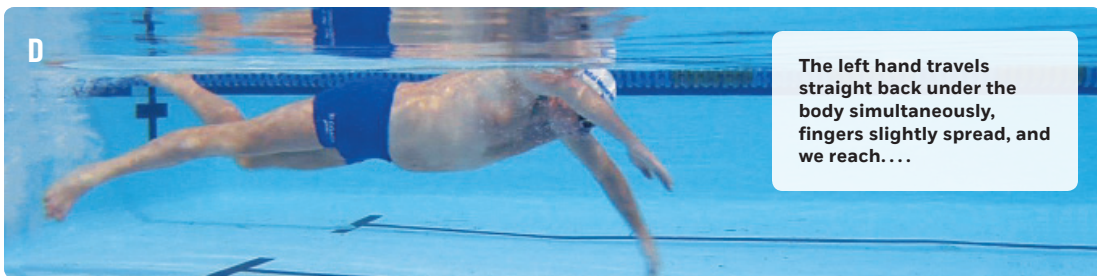
Now, try it again with 267-436-5128, but simultaneously pat your head and rub your stomach while a friend lists off random numbers.

Harder, right? This is an illustration of pushing *working memory*, which is taxed by tasks that "require the goal-oriented active monitoring . . . of information . . . in the face of interfering processes and distractions."[‡] Think of it as your RAM. Too many applications at once and your computer freezes.

This is where mayonnaise, a cookbook staple, is relevant. It's perfectly slow-carb and I love the stuff, but it's problematic.

Cookbooks introduce mayo with good intentions: *Look how simple it is! You're making something you've always bought at the supermarket . . . just imagine the possibilities!* Now, if you rate difficulty based on number of ingredients, a chimpanzee could make mayo. Four ingredients: eggs, olive oil, lemon juice, and a bit of salt.

THE TI FREESTYLE STROKE



On paper, all is well. In practice, it goes more like the following. I've put my novice thoughts in brackets. The bolded instructions are taken from a real recipe:

Just add A, then a bit of B... but don't break the emulsion, whatever you do!

[What is an "emulsion," and how do I avoid "breaking" it? But first of all, how on earth do I hold the bowl and whisk while pouring something at the same time?]

Be sure to secure your bowl, ideally a heavy pot, lined with a damp dish towel.

[Lined? How and where?]

Add olive oil 1 drop at a time and continue... [How do I pour 1 drop at a time out of a spout... especially while reading the next step?]
adding roughly 1 c per 20 seconds.

[How do I time that?]

If it breaks, stop, do Y, then repeat steps L and M. Again, not too fast! [I hate you, cookbook...]

If it's too thin, just add a splash [How much is a "splash"?]
of water and mix again.

Footnote: If that doesn't achieve the desired consistency [And how do I know what that is?], **add some Dijon mustard** [What?!... wish I'd known that beforehand.]

Our dear mayonnaise, treated like the ABCs in the first pages of many wonderful books, overloads our circuits with variable pacing, performing multiple new skills ambidextrously and simultaneously, and much more. It's an interference hail storm.

And so we learn a lesson: it's the burden on working memory that makes something easy or hard.

No wonder so many people give up on cooking! You throw in the towel after asking: "Why bother trying if I can't even handle the basics,

the ABCs?" The good news is that it's not your fault. You're being forced to do the CABs, and that makes no sense.

It's time to reorder things.

KINGS AND PAWNS: STARTING WITH THE ENDGAME FIRST

I first met Josh Waitzkin at a coffee shop in Manhattan. Having just read his second book, *The Art of Learning*, I was as giddy as a school-girl at the prospect of meeting him.

About 15 minutes into sipping coffee and getting acquainted, I was thrilled to realize that he dropped f-bombs as much as I did. He was no Rain Man, and I felt silly for half expecting him to be.

If you've seen the movie *Searching for Bobby Fischer*, then you know of Josh. Wandering through Washington Square Park with his mom at age six, he became fascinated with the "blitz chess" that the street hustlers played at warp speed. He watched and absorbed. Then he begged his mom to let him give it a shot. Just once! Soon thereafter, dressed in OshKosh overalls, he was king of the hustlers.

Labeled a prodigy (a term he dislikes²⁵), Josh proceeded to dominate the world chess scene and become the only person to win the National Primary, Elementary, Junior High School, Senior High School, U.S. Cadet, and U.S. Junior Closed chess championships before the age of 16. He could easily play "simuls," in which 20–50 chessboards were set up with opponents in a large banquet hall, requiring him to walk from table to table playing all of the games simultaneously in his head.

Bruce Pandolfini, Josh's original chess teacher, started their first class by taking him in reverse. The board was empty, except for three pieces in an endgame scenario: king and pawn against king.

25 The term *prodigy* shouldn't apply to Josh because *prodigy* is used with a single modifier in front of it, as in "Josh is a chess prodigy." Josh defies pigeonholing. He tackled t'ai chi ch'uan after leaving the chess world behind. Thirteen Push Hands National Championships and two World Championship titles later, he decided to train in Brazilian jujitsu. Now, a few short years later, he's a black belt training with phenom Marcelo Garcia for—this should sound familiar—the World Championships. I have no doubt he'll win. If not in 2013, then in 2014. He is the meta-learner's meta-learner.