ENFOLDED KNOWLEDGE

1

At around six years old, when it became clear that baseball would be the interest that would outlast fire fighting in my son's life, I had nothing to teach him. I never watched baseball. I never had a favorite team. I did my time in Little League, and never, if I could help it, picked up a baseball again. So, I did what I often do when I don't know how to do something; I went to the library.

My son took charge of his learning from the beginning. At first, we played catch. I didn't own a glove, so when he began to throw hard, he contrived to get me one. We stood farther and farther apart when we threw the ball back and forth. I lobbed high balls high so he could learn to catch flies, and skimmed the ball across the grass so he could practice fielding grounders One day he came outside and told me there was something he wanted to learn. He wanted to catch a fly ball on the run. He came up with his own way to practice. He took a position in a corner of the yard, directed me where to throw, and raced to catch it. This would continue for years until the yard was just too small for it to be a challenge. As for the rules of baseball, he picked them up on his own by watching hours of Yankees' games on TV.

Knowing how to catch flies in your backyard, however, is not the same as knowing how to play baseball. Knowing how to play baseball means knowing how to play on a team in a real game So we signed him up for coach pitch baseball. Coach pitch baseball follows T-ball. It hadn't occurred to me that I should have signed him up for T-ball. In T-ball, the ball sits on a tee the height of a kid's swing. It can take several tries, but eventually, a swing connects, and even if the bat only just catches the top of the ball and the ball falls off the tee to roll a few inches from the plate, everyone cheers as the child runs to first base. In coach pitch, the child's own coach tosses the ball to him rather than an opposing pitcher. He throws it so the child can hit. This way, the child gets used to a ball coming at him. T-ball teaches a child a level swing at a stationary target positioned precisely where the bat and ball should connect. Coach pitch lets the child connect that level swing to a baseball in flight.

For parents, T-ball and coach pitch baseball games were almost like a picnic. Coaches and parents set up a little diamond in the grass. At one particular game, Rubin played third base. That day, I watched from that side of the field, very near the base, but mostly, I chatted with Chuck, the left fielder's father. Across the infield and the outfield we could see the usual array of attention spans. Some kids looked at their gloves, some took the "ready position" they'd been taught, while one or two of the outfielders picked dandelions. Suddenly, to everyone's surprise, a kid hit a pop fly. It sailed up the third base line right to Rubin, who stood as he had seen the third baseman stand on TV, near enough to the base to reach it, but far enough to field a ball hit between him and the shortstop.

What happened next is what I remember.

When the runner on third saw the ball sail into the air, he ran down the third base line toward home. It wasn't that the runner assumed no one would catch the ball. It was just that runners always ran when the ball was hit. Rubin caught the ball easily, stepped on the base, and then trotted off the field even before his teammates realized he had turned a double play to end the inning. On the way, he casually tossed the ball without looking to see where the pitcher stood.

Chuck said, "Wow, look at that."

"Look at what?" I said.

Chuck explained. There'd already been an out from the boy who'd been thrown out at first. The fly Rubin caught was the second out. Although the runner on third was allowed to leave the base, if Rubin stepped on the base before the runner got back, the runner was out. That was the third out. So, Rubin turned a double play to end the inning. I don't remember this moment for Rubin's skillfulness. I remember it for his casual confidence. In one smooth motion he caught the fly, turned, stepped on the base and started for the dugout, making sure to leave the ball behind.

Many different kinds of knowledge were enfolded into that motion, a year's worth of routine and practice so that once he saw the ball leave the bat, he would moved toward it, watch it, and position himself to catch it. Before the ball had been hit, he stood where he needed to stand, a position he learned from watching games and from his coach's

instruction. He understood and could explain the rule that made the double play possible. He was aware of the runner to his right. At one point, to know the rule meant he could recall it and explain it to me if I asked while we watched a game on TV. But in the moment he caught the ball and put the runner out, "to know" meant to act, to understand, to be aware, to stand and to move. "To know" meant "to do," and "to do" meant to think with his body and senses. The process of learning and practice that broke down what he needed to know into parts that could be apprehended now cohered. Another kind of knowledge made itself apparent to Rubin. His coach could tell him about it, and gesture towards it, but Rubin would only get a full view as he practiced. Call it "intuitive knowledge" or "feel" or call it an "eye" or "awareness," but one thing is true: that knowledge happened in time and space, in a particular moment at a particular place. Rubin expressed his understanding of the game of baseball and the way to play third base by catching the ball and putting the runner out. Of course, then, to catch a fly and turn a double play was miraculous, an event. Now, twelve years later, to miss that fly or to catch it and not put the careless runner out would be a mistake.

2

Once, during the first or second year of my career as a college writing teacher, a student raised his hand in class and asked, "How did you do that?"

I don't remember exactly what I was doing at the time, but I believe I'd put some sentences on the board and showed the class how they could rewrite them to make them clearer. I remember the sensation I felt just after I made the sentence different and better with a few quick chalk strokes. It was joy. I was in my twenties, in front of one of my first college writing classes, doing work I believed was an essential good. Teaching writing, I believed, could transform a student's relationship to herself and the world, give her power, and even keep her safe. I was lost in a process that gave me great pleasure: rewriting. For a moment, I nearly forgot the students were there.

It's an excellent question, an elemental one for a good teacher: How did you do that? For my students, in that moment, I only answered the question, "What does it look like when you know how to do that?" Like the moment when my son caught a fly and put out a runner at third base, different kinds of knowledge were enfolded in that moment. A scant bit of direct instruction about grammar which I had developed through trial and error and reading into a few rules of thumb I could tell you only if I stopped for a moment to figure out what they were. I knew I could do it, rewrite something, which is not a belief that every writing student has when she comes into a classroom. It's common for students to behave as if they have a limited number of sentences they can make in a given context. I possessed what could be called "skilled perception." What a gardener sees in a garden is very different from what I see. It's safe to say that I see hardly anything at all. To me, a garden is a backdrop. If I begin with the evidence of my eyes, I can see that some blooms are crisp along the edges and others are beginning to uncurl from their stems. I can notice, if I take the time, where soil is wet and dry. I can see where weeds have choked a bed. If I want to follow this path of observation and consciously choose to, that path can eventually cross the path of the gardener who has spent seasons

with the garden, who calls plants by name and knows when to plant them. I was like a gardener in a garden; my eye right away drifted to the places they should to see what would make a difference to the choices I might make.

In *Ethical Know-How*, the cognitive scientist Francisco Varela describes two cognitive states, *deliberation and reflection,* and *spontaneous action*. We rely on deliberation and reflection when we encounter an unfamiliar world. In time, when that world becomes familiar and comfortable, we act spontaneously. The student who asked, "How did you do that?" brought me to my senses, and now I had to use those senses if I was going to understand what I had done, or express what I had done, let alone teach what I appeared to know.

3

Sometimes I write on the blackboard:

Oregano
Can tomatoes
Garlic
Olive oil

I ask the class, "What is this?"
The students respond, "A grocery list."
Except for the one who cooks who says, "It's a recipe."
The others reply, "But you already have to know what to do."
They're right, of course. If you know what to do, a list can be a recipe. When you look at that list with everything you know, everything you know acts like a hidden commentary. After a certain point in any cook's education, some oregano, a can of tomatoes, a few cloves of garlic, and bottle of olive oil set on the table is already a sauce:

Heat a pot.
Add the amount of oil in the time it takes to say the words "olive oil."
As soon as the scent of garlic reaches you from the pan, add a can of whole tomatoes. Remember: open the can before you add the garlic. If you have to stop, the garlic will burn and turn bitter. You'll have to start again.
Add salt and pepper, dried basil, and oregano.
If the herbs are fresh, add them toward the end.
Simmer, sometimes two hours, sometimes half an hour, depending on dinner time.
Add salt and pepper.

That recipe was the first I ever learned. I had plenty of what educators call "intrinsic motivation" when I learned it. I'd invited someone I'd fallen in love with to dinner and asked Ed, my college roommate, if he had any ideas, and he told me to get a can of tomatoes, some garlic, some oregano and an onion, then chop the garlic and onion, sauté

them, add the tomatoes and simmer it. Add salt and pepper, too. Put it on pasta.

Ed gave me a can of tomatoes he had a bottle of olive oil. He also had a little jar of dried basil. At the co-op, I found one sad onion and a head of garlic. It was Friday and the wholesale run wasn't until Monday morning. I found bag of spinach pasta. Fancy.

The cooking went off without a hitch. It was, I think, the first time I could properly say I cooked something, even though I'd opened a recipe book every now and then on a special occasion at home. That Ed told me the recipe is important. I'd cooked enough that I knew what the dish would taste like when it was done and I knew what it would look like when I served it. By "cooked" I mean I paid attention at every step. I noticed the whole tomatoes in the can floating in juice. I smelled the garlic when it hit the hot pan. I kept an eye on the clock so I wouldn't overcook the pasta. I tasted the sauce to make sure it was good enough to serve.

Over the years, that sauce became a routine part of my everyday menu. It appears on the family table once a week or once every ten days, depending on the rotation: chili, rice and beans, pasta with sauce and cheese, salty roast chicken, something I-don't-know-what yet—order a pizza. When a dish calls for red sauce, I use a version of the one Ed taught me. I never buy sauce in a jar unless I know time is short, however, when I make it, I make twice as much so I have some to freeze. I learned that cumin makes it Mexican, curry powder makes it Indian, garlic and oregano make it Italian. Stock, vegetables, and beans make it soup.

After a certain point, I knew some things in the recipe were up to me. "Up to me" became the recipe. If I want it chunky and rustic, I'll serve it over pasta shaped like flowers, or ears, or wheels, or corkscrews. If I want something that suits spaghetti or pizza, I puree it or put it through a strainer. In a hurry, I mash it all up in the pan with a potato masher.

When I began to see people do other things, I thought, "I'll try it that way." I used to chop an onion and sauté it in the olive oil before I added garlic, but then I read in an interview that Marcella Hazan cuts an onion in half and lets it stew rather than chopping and sautéing it. This is wonderful; it leaves a pale husk to eat when the sauce is done.

Twenty years ago, I saw Francis Ford Coppola on a cooking show. He puts butter in his sauce. And then there's that scene in *The Godfather* when the family goes to the mattresses and Clemenza teaches Michael Corleone to make the sauce by adding sausages and meatballs to the pot after he fries the garlic but before he adds the tomatoes. If I saw it, I tried it. In time, I "thought with" the recipe; it became a way to understand what I could do with certain ingredients.

4

I watch the cooking channel.

Although I can't I'd like to walk my knuckles back like a restaurant chef when I slice vegetables. The cook- book I learned the most from was Edward Espe Brown's *Tassajara Cookbook.* Although I didn't adopt the cuisine, I adopted its sensibility and took advantage of the diagrams and instructions, which were presented simply in small paragraphs. A recipe contained steps and listed ingredients with rough amounts, or none at all. The book talked about techniques, precepts, and principles. What binds a casserole? When does soup become stew? One recipe in particular stood out for me, the recipe for salad dressing. Brown explains why the ratio of one part tart to three parts oil is a good starting point. He describes, as he often does, what and why certain ingredients can be substituted, but starts with what's most common. He explains very simply what ginger, garlic, mustard, and soy sauce do, so you know why to add one or another; he explains how vinegar can become lemon, or olive oil can substitute for peanut oil. Garlic adds body, and mustard adds bite.

The Tassajara Cookbook taught me how, when it comes to cooking as well as writing, the process is the product. I learned that an ingredient can be subject to many different techniques. Whether I steamed, sautéed, simmered, blanched or combined them depended on my mood, the occasion, and what was available to me. *The Tassajara Cookbook* offered a unique structure that enabled me to work comprehensibly at the edge of my competence. Eventually, with time and practice, I could imagine how raw ingredients cooked, and how, when certain ingredients combined, they made something taste Italian, Greek, or Chinese.

Another benchmark in my cooking life was when my relationship to cookbooks changed. Someone gave me Jacques Pepin's *La Technique,* essentially a book of pictures of hands. Several hundred pages long, it begins with sharpening a knife and chopping an onion, and continues on through deboning a chicken and making puff pastry. Each simply titled section consists of a sequence of pictures with captions, preceded

by a brief introduction. The photographs tell one story, the captions tell another. I leaf through its pages to look at things I would never do, and things I haven't yet done and might, and things I want to do, and things I am doing right now. It's become a reference book, the way the *Fannie Farmer Cookbook* has, and the *Jewish Holiday Cookbook*, and the *Joy of Cooking*, but a particular kind of reference book, the kind I use when I know what I am looking for as well as when I don't. I check instructions to firm up my understanding of what I am about to do, or remind myself of proportions or ingredients.

People who teach writing assign handbooks and worry over getting their students to use them. New handbooks are meant to become standard, but they rarely become, as far as I can tell, cookbooks. When I open a cookbook, I find flour between pages sticky with brown sugar. The cookbook becomes part of the life of the kitchen, but the handbook rarely becomes part of the life of the student's workroom because writing rarely becomes part of a student's life. I can imagine cooking without a cookbook—I do it every day. But I can't imagine my kitchen without cookbooks because when I need them, they are indispensable to me. Unfortunately, students don't always know what they need.

5

In time, I developed rules of thumb.

Stock the pantry. Oil, salt, pepper, garlic and herbs and spices that accumulate around the dishes I make the most, and some things I might try again. Always try to have an onion, garlic, a can of tomatoes, stock, pasta, rice, and carrots on hand.

Don't suffer over failures. Tomorrow I'll have another dinner to make.

Anything served at dinnertime is dinner.

Taste as I go.

Don't walk away from something when it's on the burner, or at least not for long.

Don't put a grease fire out with water. Smother it with salt or a pot lid. That's not so much a rule of thumb as a rule.

Ideally, I clean as I go, but I know that even when I clean as I go, there will still be a mess at the end.

If it says to preheat, putting something in the oven sooner won't make it cook faster.

A watched pot will boil, but I should be doing other things while the water is coming to a boil.

There is a lot of time in a kitchen, but only if I do several things at once.

I can only do several things at once if I don't do them at the same time.

Eventually, I'll learn how to know when something is done.

6

I've accumulated tools.

Slotted spoons
Rubber spatulas
Tongs
A chef's knife
A bread knife
A paring knife
Three cutting boards
A colander
A strainer
A sauté pan
An omelet pan
A big pot for soup
A pot for pasta
A cast iron pan
Pans to braise and roast in
Cookie sheets
A big whisk and a small one
A grater
A microplane
A meat thermometer

7

Once I was in a housewares store looking over the wall full of peelers and egg separators. I was in my mid-twenties. Eavesdropping, I heard one woman tell another, "I've closed two kitchens." She went on to specify that the kitchens were her mother's and her aunt's. My father saved a few things from his mother's kitchen: a food mill, two pots, and a sharp knife. The knife had been sharpened so often that the edge curved a bit at the middle, a little "s" shape from handle to tip. The blade bent whenever I tried to cut with it, but my father can always make it work. Of the things my grandmother handled, these I think were the ones she handled most. They were quite meager in their way. I used the food mill until it broke. In a thousand years, these items might not be interesting even to an anthropologist; they'd be like oyster shells and antique bottles turning up at the site of nineteenth century outhouses. They will never be ancient, not even antique.

Tools find hands. They live hands that hold them.

8

I'm the person everyone says "There's nothing to eat!" to, which means there is nothing they want to eat or nothing in the fridge that doesn't need to be cooked. I practice every day. Challenges operate at different levels of scale. There is the mundane cycle of dinners: chili appears every eleven days, pasta with red sauce and mozzarella cheese every nine, breakfast for dinner in a pinch. The audience for these meals values reliability and familiarity. Then there are meals that call for planning and preparation. The audience for those meals appreciate the dramatic, like a cold soup or goose, or the reliably executed traditional, like a holiday brisket, or a clear golden chicken soup with matzo balls. The same tactics and timing that make it possible for me to cook dinner in a hurry enable me to put dinner for two dozen on the table at roughly the time I promise.

Like the academic writing I teach, the cooking I do can be menial and profound, an opportunity and a chore. I make hundreds of meals a year and shop for them. My kids eat what I serve or they don't. Sometimes the meals are excellent, sometimes perfunctory. Most of the time I'm pressed for time, and sometimes I serve breakfast for dinner. I'm not responsible for creating new dishes or innovating old ones. I'm not responsible for developing menus or maintaining consistency the way chefs must be in a restaurant kitchen. The kinds of bright ideas I have in the kitchen revolve around two considerations: what I guess someone might like, and what I see when I look into my refrigerator or scan in the grocery store. Then suddenly I may understand what I might make that night. I can see the dish in my mind and see how it is made. I can see what I might do with an ingredient and imagine the outcomes. No foams, no lemon essence flash frozen into pearls scattered across the plate, but maybe fried chicken and a lentil salad.

The moment I realized I knew what it might be like to "know how to cook" was when I made a midnight snack for someone. We were hungry and it was way past dinner time. There was nothing in the fridge and very little in the cupboard, so I boiled pasta, then dressed it with what I found in the pantry: soy sauce, sesame oil, peanut oil and

mirin, a sweet rice wine used in Japanese cooking. When I dressed the hot pasta, the smell jumped back at me. We ate it right from the bowl I served it in, watching TV in bed.

I'd gone to the cupboard and seen all the parts as one thing. When I went to the kitchen, it was already there.

COMMENTARY: IMAGINE THE STORY YOU TOLD OF YOUR LIFE AS A WRITER AS A WIDE SEA

Imagine the story you told of your life as a writer as
A wide sea you'd cross island by island
A desert you'd cross well by well
Or a stairwell comprised of erratic landings,
Twelve steps from one to another,
Ten from that one to the next
All the way to the top.
Think of each island, well, each landing,
As a moment you gathered yourself,
And acted more skillfully than before.

Identify those moments. Describe them.
Begin anywhere.

Are their places ahead of you or above you?

Imagine them.

COMMENTARY: START WITH SOMETHING YOU DO

Start with something you do, whether you are good at it or not, but something you do, or have done consistently—something that required your attention, something you have tried to be good at. Perhaps something where it doesn't matter if you become an expert, or even particularly good.

Try something other than your work, other than writing, other than teaching, and other than your professional occupation.

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Write the story of how you learned to do it.
Describe what you had to learn to do it.
Describe what it looks like when you are doing it well.
Describe what it looks like when you need to learn more.
What did you need to be told?
What did you learn for yourself?

Think of when you are doing your best work.
From outside, what would it look like?
From inside, what does it feel like?

Think of the classes you've created:.
When you are teaching well, what does it look like? From the outside?.
What does it feel like? From the inside?.
When the students are working well, how does it look?

Think of the people whose work you admire,
What do they need to know to do their best work?
What do they need to learn when they fail?

THIS ABILITY