

Lecture Text

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The Case Method in Professional Education

(edited for clarity)

Introduction

Good morning. Welcome back. Let me tell you what we have in store for this morning, and let me really set it up by telling you a little story. When I first came to the Business School, I had heard lots and lots about the case method but I'd never actually experienced it. So I sat through classes with many different instructors, much as you're doing now. And I was reminded of a story about the great American explorer, a man named Daniel Boone. Daniel Boone lived in the late 1700s and early 1800s, and he opened up large stretches of America, particularly in the states of Kentucky and Tennessee. He was a trapper. He was a frontiersman. He was somebody who would typically move when somebody got within twelve miles of his home. He would say, "The neighborhood is getting crowded." So this is a man who knew the backwoods. And Daniel Boone was once asked if he had ever been lost. And he thought for a moment and he scratched his head and he said, "Nope, but I was once bewildered for three days."

When I first experienced the case method, I was bewildered for three days—many, many different types of case method. So let me tell you what I'm going to try to do today. I'm going to give a whirlwind tour of the case method in three quite different settings. Case method is actually used not only at the Business School, but also at the Law School and at the Medical School. There are quite different approaches to the case method.

So what I'm going to try to accomplish here is four things. First, I want to give you some background, and I'll give you the slides in just a minute, on professional education. How do we think about professional education and professional practice more broadly?

Second, I want to give you a whirlwind historical background on how the case method developed at the three schools, because there are handoffs from one school to the next. There are connections among the three. And particularly for those of you who are deans in the room, deans played a pivotal, pivotal role in making this happen at all three schools.

Third, I want to spend most of our time on classroom practice. How does the case method actually play out in the three different settings? And then fourth and most important, and I hope we do this as we go along, I want to see if we can have a discussion about what this all means for business schools and for business education. And again, I encourage you to please stop me at any point with comments, questions, and observations.

Professional Education

Professional Skills

This is a quote from Derek Bok. Derek was President of Harvard University for about twenty years. He was a former dean of the Law School and spent a considerable amount of time looking at the different professional schools. This was actually from a report on the Kennedy School of Government. Derek said, "In the end, the most valuable contribution that any professional school can offer students is to convey a systematic way of breaking down the characteristic problems of the profession so that they can be thought through in an effective, orderly, and comprehensive fashion." Virtually all professional schools teach what

they call “habits of mind”—ways of thinking, ways of approaching practice. But it’s not just knowledge. It’s a combination of knowledge, attitudes, and skills. And most professional schools have figured out that you can’t do that through lectures alone. Probably the thing you *can* do best is give them characteristic problems—in our case, business decisions; in the Medical School case, cases about patients who are ill; in the Law School case, difficult legal choices. And then how do you think about those problems and act on those problems?

If you try to break this down into parts, there are in fact four broad sets of professional skills that most professional schools try to teach. Now, I want to spend a little bit of time on this slide because there’s a lot going on here. First let’s understand, what are the skills? You’re faced with a characteristic problem: Should we invest in China? Well, what do you do first? First, diagnosis: you try to understand the nature of the problem. Not all problems present themselves fully formed. So part of what you’re doing is teaching your students how to find the problem and scope it out. And then you do analysis, and there are lots and lots of tools, frameworks, and methodologies for doing that.

Then you actually do design. You frame options. You come up with alternatives: we could invest in China; we could do it through a joint venture; we could do it solo; we could buy someone’s facility that’s already there. Those are all options. We identify the alternatives and then we formulate possible plans. Third step: we actually make a choice. We do decision making. And fourth: we then act, and action has two pieces. We have to mobilize and communicate. Particularly in a business setting, action involves large numbers of people, involves organizations. And then we implement.

Three critical points about this list. The first: it’s very, very difficult to teach these skills through lectures. And there’s a wonderful old saying about lectures: all too often knowledge passes from the notes of professors into the notebooks of students without passing through the minds of either. This requires active knowledge—can’t do it through lectures. You can perhaps teach the frameworks and tools, but it’s hard to teach the associated attitudes and skills.

Second, and we’ll spend a lot of time on this point: different professional schools put a premium on different professional skills. In the case of the Law School and the Medical School, they’re much more focused on diagnosis and interpretation. So when I spoke to the Dean of Medical Education at Harvard Medical School, he said, “In the first two years of the program, we don’t want our students thinking about decisions and choices about which drugs or which medicines to give. All we want them to do is understand the bio and chemical systems at work. We want them to understand how the body functions, its diagnosis.”

Law puts a premium on interpreting cases in the early stages. You go to the Kennedy School of Government, a public policy program, and they tell you that in many cases the real action is not a diagnosis, but it’s in design. And they gave me a very particular example. In the United States, we have a system called Social Security; which is designed to give people funds after they retire. The Social Security system is broken; it’s running out of money. Everybody knows it’s broken. The problem is not diagnosis. The problem is coming up with an alternative to solve the problem. The challenge is really design.

Now, at the Business School, particularly historically, all of the action was in the last two categories. The Business School talks repeatedly about a bias towards action: the courage to act and make decisions under uncertainty—tremendous focus on decision making and action. And diagnosis and design are there largely to get you to action. Now, as you’ll see

when I go through the Business School later, that's beginning to change and we're putting increased attention on diagnosis and design. We can talk about whether that's appropriate or inappropriate, but that's a change going on right now.

Third message about this table: some of these activities are very, very difficult to teach in a classroom setting by any means, even the case method, particularly the very first and the very last items on the list. Problem finding: you actually have to find the problem. Think about a case. Who found the problem in the case?

_: The teacher.

PROFESSOR GARVIN: The teacher. The teacher's already framed the problem for the students. We talked yesterday: a case is selective. You already have the problem-finding done. Implementation: you can talk about it but it's very hard to do in a classroom setting. This is the reason why, as we'll see a little bit later, in both the Law School and the Medical School, when it comes to those kinds of issues of practice, they have separate, freestanding courses. At the Law School, it's a course called Lawyering, where you're trying to identify the problems in a case. And at the Medical School, it's a course called Patient/Doctor, where you literally over three years learn: How do you interview a patient? How do you do a physical examination with a patient? And how do you collect a history from a patient? It's a separate course because the skills required often have to be taught in other settings. It's why we at the Business School still use field studies to such a great extent. Field studies get students out into the field interacting with managers, where they often find—repeatedly tell me, “I thought this project was about X. And when I got there, X wasn't the problem. It was a completely different issue. Why didn't they say so?” That's problem finding.

The Role of Cases

OK, now, where do cases fit in? Paul Lawrence is a noted OB professor here at the school, since has become emeritus, and he said a good case is simply the vehicle by which a chunk of reality—think a characteristic problem—is brought into the classroom to be worked over by the class and the instructor. That's the chunk of reality. The different schools have different chunks of reality they choose to bring in. At the Law School, it's a legal decision. At the Business School, it's a pending decision or choice. At the Medical School, it's the evolving history of a patient.

Historical Background

Harvard Law School

Now, a quick history. First, the Business School. Much as we'd love to tell you we invented the case method—this is a little secret—the Law School invented the case method. Goes back to the mid-1800s. In the early days of teaching law, universally it was by lecture and drill. The professor would give a lecture, and then would say to one of the students, “Now, stand up and I am going to cross-examine you on how well you learned what I just told you.” The students would literally parrot back exactly what the professor had to say. And treatises—the assigned readings were essentially large textbooks, interpretations of the law.

And then a man named Christopher Columbus Langdell became dean of Harvard Law School. He served for twenty-five years, from 1870 to 1895. He was a student at the Law School for three years, from 1851 to '54. That in itself was very unusual. At the time, the tenure of a Law School student was a year to a year and a half. Langdell spent the extra year and a half in the library, reading legal cases.

When he went into practice, he was not a particularly good lawyer. He was very good at writing briefs. And he became dean, and his view of law was that law is a science. Now, you need to understand the intellectual roots here. This is the days of science as empiricism, inductive empiricism. You make a series of observations and then you generalize and draw general principles and rules. And he believed that law was just like science. So what did he do? He said the specimens are appellate court decisions. Appellate courts are appeals courts. So a case has been decided and then it goes to the higher-level court for review. They are selected because they conform to general principles. So any case that didn't conform to the general principles he viewed as unworthy of being studied. We'll see that this gets reversed in the future.

Students read the original sources. They're supposed to read the cases and then they're supposed to figure out the underlying principles. So what does he do? He contributes—and, again, for those of you who are deans, you need to think about this—he contributes two things: first, a body of material—in this case, the first legal casebook; and second, an approach to teaching, or pedagogy. He applies the Socratic method. His view is that practical experience as a lawyer is not what you need to be able to teach law. What you need is the ability to be a legal scholar, and he's trying to justify law as having a place in the university.

So what's the reaction? The initial reaction is people hate it. In the first year, enrollment in his contracts course, which is where he introduced the case method, drops to six students. In the next three years, enrollment at Harvard Law School drops by over 30 percent, from 165 students to 117 students. This method is so beloved, that a year later Boston University creates a law school and announces, "We do what Harvard doesn't: we *don't* use the case method." So we're responsible for founding BU Law School. After twenty, twenty-five years, only six schools have adopted the case method. There's huge resistance.

And then what happens? Two things. One, new deans come in at the other elite law schools—at Yale, at Chicago, at Columbia, and they like the idea. Meanwhile, some of the earlier students of Langdell, particularly a man named Louis Brandeis, who became a Supreme Court justice, one of the great jurists in America, ascends and announces he learned everything he knows through the case method. It becomes popularized. By the 1920s, it becomes the dominant form of legal education, and it continues that way today. So that's the Law School model, and I'll give you the particulars in a minute.

Harvard Business School

Business School: we were founded in 1908, with a commitment to real problems and discussion methods. By the way, you need to understand this: commitment to discussion methods is really quite rare. We have this wonderful image in the United States of what is teaching really like, and you have to imagine the picture. This is a country scene. There's a log, and the professor's sitting at one end and the student's sitting at the other end of the log, and they're having a conversation. One of my colleagues once said the reality in too many classes is that the professor sits on the student and talks to the log. Discussion is actually quite rare, particularly back in those days.

We had very limited progress in the early days. In fact, most of our courses were highly didactic. They were lectures. The topics were things like Economic Commerce of the United States; The Railroad Industry. And the first real cases were walking cases. It's a wonderful story. This happens in 1911. A man named Arch Shaw, who at the time was the publisher of a magazine called *System*—it's the forerunner of *BusinessWeek*—walks into the dean's office. He says, "You know, your students wouldn't know a real problem if they fell over it."

The dean says, "Fine, what would you like to do about it?" He said, "Tell you what. I will bring in real business people with real problems, and I'll bring them in for three sessions. First session, they come in and describe their problems. Second session, the students work on developing responses to their problems. And the third session, the students present their responses to the businesspeople, and the businesspeople react." That was the forerunner of business policy, of general management and, in fact, were the first cases at Harvard Business School. Nothing was written down.

What happens? Not much happens until a man named Wallace Donham becomes our second dean. Donham was a graduate of Harvard Law School. He had experienced the case method, and he said, "We can do more at the Business School." He said, "The Business School just doesn't have cases. They already exist in law, they've been written down. They don't exist in business. There are strong parallels between business and law," he says, "with one exception. In business, precedent, what happened before, has no authority. So relying on past cases is not helpful. Each case needs to be treated uniquely."

And what does he do? He convinces a man named Melvin Copeland, a famous marketing professor, to change a textbook he planned to write into a marketing casebook. It's the first casebook in business. It was published in 1920. He asked the faculty to change the name of our approach from the problem method to the case method. He orchestrates—again, for the deans in the room—a widespread discussion among faculty around how the case method might be used. He funds something called the Bureau of Business Research, under Copeland's direction, and for five years, a group of dedicated scholars write cases for all courses. At which point, five years later, he disbands the bureau and insists that faculty as a whole take responsibility for case writing. This is a pivotal issue.

At the Kennedy School of Government, here at Harvard, they still have a dedicated group of case writers. There are seven professional case writers. As a result, the faculty have never fully assumed responsibility, and a case teaching and case writing culture isn't established. What happened here was Donham said, "I need critical mass. So for five years, we'll get critical mass, and then we'll make sure the faculty assume responsibility." Contrary to law, there's a very rapid diffusion of case teaching within Harvard. Three or four years later, it's used in virtually all courses; becomes the dominant mode of instruction by the mid-'30s; widely adopted outside Harvard. By 1922—this is two or three years after Copeland publishes his book—fifty-two schools have already adopted it. There's obviously a hunger for this approach in business that's very different from the lack of interest in law. Then lots and lots of continued outreach. You can see it's almost an industry. Every few years, Harvard faculty write books on case writing and the case method. Nineteen thirty-one, '53, '54, '69, '81, '91—getting to be time again. We'll probably write another one. There's a visiting professor's case method program, which in many ways is the forerunner to the teaching seminars like the CPCL (Colloquium on Participant-Centered Learning), which continues. And the method is now widely practiced.

Harvard Medical School

Finally, last one: the Medical School. Early days of the Medical School, medical education followed a model that came from a man named Abraham Flexner, back in the early 1910, 1915 period. Two years of lectures and then two years of on-the-job training: preclinical and clinical years. Lots of criticisms of this approach: it's tedious, it's overwhelming. To stay on top of medical knowledge, you would have to read two to three articles a day for twenty or thirty years just to read all the articles in one year of publication. Just too much material to absorb. Again, it's a dean, a man named Daniel Tosteson. Very traditional background: comes from Chicago and Hopkins. And he, too, orchestrates two or three years of internal

discussion and debate within the Medical School: how can we change medical education? He brings in national experts, he puts his faculty on national committees, and creates demand. Then they initiate a new track. It's called the New Pathway, in '85, '86, and it becomes the standard curriculum seven years later.

Now, here's where problem-based learning comes in, and I'll talk a little bit more about this. Harvard didn't invent this technique. It was actually invented by some pioneering medical schools: McMaster, in Canada; University of New Mexico. But there is a connection to the Business School. Roland Christensen, Chris Christensen, who I mentioned to you yesterday, served on the steering committee for the design of the Medical School program. And a man named Gordon Moore, who was an ambulatory care expert, a doctor, was the designer of the program. Two years before he was asked to design it, he had attended Harvard's Advanced Management Program. So the case method is migrating from school to school to school.

What do they do? They focus on the first two years, the preclinical years. Sharp reduction in lectures. In the new program, there is one lecture per day. That's it. They introduce tutorials, which is where they have case-based discussions. Tutorials have six to eight students. They meet Monday, Wednesday, Friday for two hours, and they are keyed to the lectures, and I'll describe the format in a little while. All the curricula are organized by topics or blocks. So for the first six weeks, all you'll talk about is human anatomy. It's one subject per block of time. Another block might be pharmacology—drugs—for five weeks. You link clinical problems, the patient, to science, from day one. Clinical problems appear in tutorials; lectures are about the basic science. They're not giving up basic science; they're just linking the two. And as I said, the doctoring skills—Patient/Doctor is a separate course—and this is much more student driven. They continue this process of outreach, and it also becomes widely diffused throughout the medical community. So three case methods—that's the history.

Current Practice

We'll spend a lot more time now on what the practice is like, because the three are very, very different in emphasis and tone.

Harvard Law School

So let's start with the Law School.

Cases: First, what are cases in the Law School? Cases are appellate court, higher court decisions. Now, that has a very important implication. I want you to think back to our discussion yesterday. They contain the answer. The decision is already made in a Law School case, unlike the Business School cases, where you end before the decision is made. As a result, almost all Law School professors assign contrasting cases for each class. You read more than one case. There's obviously a Business School implication here. For those of you who want to assign complete stories that include decisions—a very powerful way to get a really good class is to assign contrast. Those of you who look carefully at the materials on decision making—when I teach the Bay of Pigs, John F. Kennedy's decision making in the Bay of Pigs, I assign at the same time the decision making in the Cuban Missile Crisis. You know what happened in both cases. The power is in the contrast.

Preparation: How do you prepare? There are almost never assignment questions at the Law School. All you're asked to do is what's called "brief the case." And briefing the case has a very standard format. Professors do it and students do it the same way. What are the facts in the case? What are the issues in the case? What are the arguments for and against

the particular issues? And then most important, what's the holding? What's the implicit rule, or doctrine, or conclusion that comes from this case? What's the minimal interpretation, what's the maximal interpretation, and how does it compare with other cases?

When I talked to some students at the Law School, they said, "You've got to understand: there are standard moves in a Law School class. You prepare the same way with these in mind. Faculty prepare the same way as well." Also, very important, faculty prepare independently. There are no teaching groups at the Law School. There's no sense of collective responsibility for teaching, which there is at both the Business School and the Medical School.

Classroom Process: Now, what's the classroom process like? It's a very different model than the Business School model. First, how does it start? There's a cold call to start the case. Professor gets up and says, "George, why don't you tell us about the case?" George knows exactly what to do. He's got to go through briefing the case: the facts, the issues, the arguments, the holdings. There are very narrow, detailed questions. Now, the image I want you to have in mind is a wheel: hub and spoke. All the analysis passes through the teacher. So George says something, teacher responds. George says something, teacher responds. Teacher calls on Pawel, Pawel responds, teacher responds. There's almost no cross-class discussion.

There's an extensive use of what they call "hypotheticals." This is *the* tool of the trade in law school. A hypothetical is a what-if question. Imagine that this house, instead of being located on land zoned for residential use, was located on land zoned for commercial use. Would your conclusion be any different? It's ever-so-slight changes of fact to get at nuance, differences, or distinctions in argument. Professors come armed with hypotheticals. It's the single most important teaching tool they have in the Law School.

There's very limited closure. If you remember yesterday, I had a summary at the end. That's not the way they summarize at the Law School. There's lots of "on the one hand; on the other hand." Now, I asked one of the Law School professors about this and she had a wonderful quote. She said, "We want our students to leave class irritated." And the reason is they need to become comfortable with ambiguity. Legal issues are very seldom black and white. All the critical legal issues are gray. And another Law School professor said it beautifully. She said to me, "You know the difference between daylight and dark? Well, we at the Law School spend all our time on dawn and dusk, the gray areas."

Purpose/Rationale: Now why? What's going on here? The reason is that all of law is based on reasoning by example, by the ability to make analogies with past precedents. And the single word to keep in mind, as I go through this on the Law School, is precision. The Law School is teaching precision and rigor in thinking—the ability to make very fine discriminations. Why is it that the professor controls the dialogue? Because the professor wants to push students on fine points, on little things that students might overlook themselves but that have huge impact on whether or not a precedent applies.

They also want them to be able to see both sides of an issue. That's the "on the one hand, on the other hand." This is a mode of thinking. They need to be able to do it under fire. This is an attempt to mimic what happens in a courtroom, where the judge asks rapid-fire questions of the lawyer and the lawyer has to respond on his or her feet. And they talk about facility of mind, the ability to quickly change on a dime. It's very powerful.

Concerns: What are the concerns? Well, the first concern is that this is very easily abused. If you think about the way the dialogue is structured, all the power is in the hands of the professor. One critic once described law school education as “pseudo participation in which you struggle desperately in front of a large audience to read a mind determined to elude you.” That’s obviously highly exploitive. And students will turn it off. What else happens? It creates a set of habits and behaviors. This approach defines law as legal combat. It’s back and forth, back and forth, lots of tough arguments. Law’s a contest, and as a result, students often become dissatisfied to the point where the Law School folks tell me they have something called “the code.” It’s an implicit code among students not to do anything that could possibly ingratiate themselves with the faculty at the expense of other students. Students ration their participation. They’re not graded on participation at the Law School. Everything comes down to a single final examination, so they don’t have to participate.

Now, as you’ll see, thinking is the premium at the Law School; acting is the premium at the Business School. Yes, Jonathan?

JONATHAN: Can we come back to this issue of noncollective responsibility for the teaching?

PROFESSOR GARVIN: Anything in particular?

JONATHAN: Whether it works or not. It’s kind of the same question I have about all of this. Is it OK the way it is or is it in the process of . . . ?

PROFESSOR GARVIN: Let me describe it to you. I was asked to give a discussion of this to a group at the Law School. There is a group of about twelve faculty: both very, very senior—the dean of the legal program; and very, very junior—first- and second-year faculty. The group was originally put together to have discussions of issues of race and diversity. There were some issues in the classroom. They broadened their agenda. They met for a full year—they’re still meeting—to discuss issues of race and broaden to issues of pedagogy. And it’s fascinating. I asked the head of this group, last summer, “What was your experience?” And he said, “It’s fascinating. The single biggest finding we had was that teaching *can* be a collective responsibility. And talking about teaching can be intellectually stimulating. We all became more experimental.” For instance, several of the faculty had videotapes done of their own classes and voluntarily shared the videotapes with the working group. This had never been done at the Law School. And they asked for comments. “We all became better teachers as a result.” One of the junior teachers actually won the teaching prize for the best instructor at the Law School and wrote a testimonial to the group, as a result.

So it’s something that is often a surprise to faculty who have worked in silos. And the surprise is not that they get better, but that it can be intellectually stimulating. So they have found that’s it’s a hugely powerful step forward. They now have a new dean of the Law School, who is very much interested in curriculum reform and has been meeting with this group, in part, as a result. So it will be interesting to see whether this rolls out universally. We’re a big believer. The Business School obviously has a huge culture of collective sharing of teaching insights. I’m going to talk about that at some length. Medical School has it as well. Other comments or questions about the Law School? So, precision, rigor, careful thinking—but, as Jonathan said, lots of soloists.

Harvard Business School
Now, the Business School.

Cases: Our cases are quite different from the Law School cases. Our cases are business situations that are researched and written by the faculty. Law School cases already exist. Business School cases have to be constructed with all of the caveats we talked about yesterday. They're selective. You design them to teach a particular perspective or set of issues. They usually involve a protagonist and a difficult decision, and they don't contain solutions.

Preparation: How do you prepare for class? Now, there is an evolution here, and I want to go back to what Gustavo said in response to Ricardo's question yesterday. Do you use assignment questions? Twenty-five years ago at the Business School, every case, almost without exception, every case had one assignment question: What should Mr. Jones do? Or what should Mr. Smith do? It was always a single action question designed to unveil analysis issues. Today, as you saw with Donnelley [R. R. Donnelley & Sons], cases have much more structured, analytical questions. Cases are longer, cases are more complicated, frameworks and methodologies are richer and deeper. As you heard in that interchange between the two of them yesterday, that has pluses and minuses. The pluses are you guide the students, you get more focused. The minuses are the larger uncovering of problem-finding issues doesn't happen. The faculty member has done it for the students.

What do you prepare? Well, students and faculty all prepare the same thing. What's your response, your action? How would you implement? And then what's the associated analysis and methodology? Now, the Business School for faculty does this very much collectively. What that means is that every required course has a teaching group—all the instructors who teach in that course. It's typically a mix of junior and senior faculty with a course head, the senior faculty member who's been through the course before. Those groups meet weekly to discuss the upcoming cases. In some groups, they actually meet on the day of class at seven in the morning to do final prep. The discussions always have two parts. Let's talk about content, and analysis, and the numbers, and let's talk about process. How might the class discussion unfold?

Typically, one faculty member in the group takes the lead on a particular case, and he or she prepares a plan for others to react to. It's a collective responsibility. There are lots and lots of observation, particularly of young faculty. New faculty will be observed by multiple senior faculty members and given feedback on: How are things going? How did you do? What's going on? How can you get better? And this continues throughout the first five or ten years of their teaching career.

Classroom Process: What's the class process? Remember the Law School. Law School was hub and spoke. The Business School spends much more time trying to get student-to-student interchange. Much more attempt to orchestrate the discussion but then let the students carry the issues themselves. Lots of reliance on in-class experts. We have class cards that are one-page descriptions of our students: their backgrounds, their coursework before they came to the Business School, what kind of work experience they had, and often their interests. And we review these before class to determine who might be experienced in this industry, with this technology, in this particular country, and we try to draw on expertise. So students can teach each other.

The interchanges are framed and orchestrated rather than specific. So if you think about my opening question yesterday—how would you compare the traditional printing and the online digital printing business?—that's a broad, overarching question, and you've got lots of room for maneuver within it. Lots of use of the blackboards. Now, what's our standard format? In

our case, we have a student who opens the class. Now, there are two approaches to opening. One is the cold call, just like the Law School. Without warning, "George, would you start us off?" The other is what you saw yesterday that I used with Ricardo and Martha. We call it a "warm call." I spoke with both of them before class, and said, "Here's what I'd like you to talk about. Here's the question I'm going to ask you. Are you comfortable? Will you be prepared to open?" They both said yes. That has lots of advantages: gives them time to prepare; they can say no. It's why I frame it as a question: "Would you be willing?" Now, as you understand, when we grade our students, they're less likely to say no, but I want the option. You want a strong start. Anything you can do to improve the odds of a strong start is in the best interests of the class. A warm call allows for a pre-warning. Yes?

_: My question is do you always choose a certain kind of student to open the class, the smarter one or the shyest one?

PROFESSOR GARVIN: No. I try to mix it up and there are lots of criteria. Sometimes it's a complicated case. I'll pick my strongest students. I want to get clear. Sometimes I know a student needs to talk for his or her own reasons. They're shy. I'll call on that student. Sometimes there's something about a student's background that I think could be enlightening for the class, and I'll give you my favorite example. As I mentioned to you a few minutes ago, I teach the Bay of Pigs and the Cuban Missile Crisis. A few years ago, I asked a Russian student to open class. It was marvelous. He looked at me. He was obviously very well prepared, I could tell. And he opened class by saying, "I want you all to realize I studied these cases when I was going through middle and high school, from a very, very different point of view." And then he proceeded to be quite eloquent, but he'd made the point already: there are two sides to this story. So I spend a lot of time on picking the opener.

And the other thing—my rule; again, people use different rules. This is a little bit of a caricature, but there are basically two strategies of openers. One is the gotcha strategy, which is, I'm trying to check on whether they're prepared. I don't happen to like that. I want my students to be prepared because they're interested. My strategy is, I want the best match I can between student and case. The more interested they are, the better the start. So I've had openings—for the Bay of Pigs and the Cuban Missile Crisis, I had openings that went for twenty-five minutes, uninterrupted. Student got done, standing ovation. Now, you'd think—class is done—at which point eighty hands went up. It doesn't suppress discussion. That's one of the great misconceptions. Even if you have the most brilliant opening, students still want to talk. There's always something they have to say. So don't be afraid to go with strength. Strength gets you off to a good start. Once you're rolling, good classes build on themselves. Difficult starts are hard to overcome.

OK, so we have the opening. Typically, the student will get done and the professor will then toss the issue back to the class; not with the narrow, detailed, probing question, but with, "Can we get some reactions? Are there other points of view?"

And then fighting issues arise. Now, this is a very important technique within the Business School. Fighting issues are tough choices. They're issues where there's not an obvious right or wrong answer but where there's real deep learning to be had. Many years ago, I wrote a case on Steinway, the piano-maker. Steinway still makes pianos by hand. It's a group of artisans, it's craftsmen. Steinway is up against competition from Yamaha. Yamaha is a Japanese piano-maker: makes pianos on an assembly line—mass production, technological approach. Students eventually characterize Steinway as an art, and Yamaha as science. At which point I asked the class, "At the high end of quality, which is where we're competing,

will art continue to beat science?" Now, that's a very tough question, because if you believe in Stradivarius violins, the answer is yes. If you look at the history of Harley-Davidson motorcycles and how they competed against Honda and Yamaha, and first lost position, and then regained it by becoming more scientific, the answer is no. I'm not interested in what the right answer is. It's too complicated. What we're interested in is deepening the understanding around what goes into art and what goes into science. So fighting issues are a pivotal part because they allow you to have student-to-student discussions.

We use call lists because we know the backgrounds of students, and then we provide closure at the end to bring everything to a wrap-up.

Purpose/Rationale: Now, why do we do this? If the Law School's key word is precision, the Business School's key word is action. We talk about the administrative point of view. This is the ability to look at a complex choice, a particular situation, and then have the courage to act under uncertainty. One of our deans, Stanley Teele, once said, "The art of management is the art of making meaningful generalizations out of inadequate facts." The facts are always limited. If you wait to get complete information, you've missed your window of opportunity. You have to have a bias towards action.

What that means is that students are always being put in the position of deciding, and we want them to begin to recognize patterns. This situation looks a little bit like a situation we studied a few weeks ago. Or perhaps it does, perhaps it doesn't. How do they size up new situations and what are the supporting techniques? And then, how do they persuade others? If you think about what managers do, they have to face up to critical choices. They sit in meetings and collectively try to convince each other of the desired course of action. It's a persuasive art. John MacArthur once said, "What we teach is how we teach." We are teaching a process of discussion and interchange. We are teaching people to be constructive participants.

Concerns: Now, it's pretty obvious this could be misused, just as the Law School technique can be misused. Some of my colleagues talk about the lecture in a case, which is a disguise for, "We're going to actually lecture to you but we're going to make it appear to be a case discussion." It's closed rather than open.

But the real problem is that increasingly management is a technical craft. There are lots of frameworks. There are lots of techniques and they are required to be a literate businessperson today. We cannot ignore them. The problem is that content then becomes king. And as one of our colleagues, Carl Kester, the Dean of the MBA program, said, "The problem is, what that means is, cases increasingly become glorified problem sets. They have a clear methodological line of attack, and what's worse, they have a single right answer." That's not what our case method was originally designed to do.

The frameworks become more important. Implementation receives much less attention. I talked about the increased prepackaging by instructors with detailed assignment questions. Now, the other issue here is that you often create habits and behaviors that may be unproductive. The first is pressure to make decisions quickly. And if you think about the behavior we're cultivating, it's: you take two hours to size up the situation—that's what it takes to prepare the case—and then you make a decision. Do you think there's a whole lot of payoff in class to a student saying, "I don't know. I need more data"? No. Problem is, in certain situations, the appropriate managerial response is exactly that. The information is incomplete. They create students who can be trigger-happy. Even worse, it creates a bias toward not publicly changing one's mind. I asked some of my second-year students a few

years ago, "How many of you have publicly, in class, changed your minds over the course of your business school education?" This was a year and a half into the program. Zero. Students never publicly change their mind. I asked them why. They said, "What's the payoff?" You're getting graded on your participation. The premium is on convincing other people of how legitimate *your* position is rather than their position. I said, "Have you ever privately changed your mind?" "Oh, all the time. We just don't confess it publicly."

Now, that has an interesting character to the debate. You'll see in a minute when I talk about the Medical School. The Medical School is a much more collaborative approach. And when I started to do this research, I had this unbelievably lucky, natural experiment. I asked to talk to a student at the Medical School. And I spoke to this student—he was a first-year medical student—and he said, "You do realize I have a twin brother?" I said, "No, I didn't realize that." He said, "You do realize my twin brother is currently in the second year at Harvard Business School." I said, "No, but tell me more." He said, "In fact, I just visited his class last week." "That's interesting," I said, "So what did you think?" He said, "You know, it's interesting. Students at the Business School listen very differently than students at the Medical School. Students at the Business School listen to each other in order to hear enough to rebut the argument they just heard. Students at the Medical School listen together to build an interpretation of what's going on in this particular case." He said, "They are very different approaches to listening." OK?

Harvard Medical School

Now, that leads us to the Medical School.

Cases: OK, what's a case? Now, cases are only used in tutorials Monday, Wednesday, Friday. Monday, Wednesday, Friday—that full week, three sessions—is one case. All cases are multiple parts, typically five or six pieces. Some cases have as many as fourteen pieces. Each part of the case is one page or less, and they progressively disclose the patient and his or her condition. So the *A* case is just as the doctor meets the patient: meets the patient, patient describes his or her background and conditions, end of first case. Second case: the results of the physical examination. Third case: the first round of laboratory tests. Fourth case: progression of the illness and further laboratory tests. And so on, as you go through the progression of the illness.

Preparation/Classroom Process: Preparation. Now, this is a completely different model of how you use the case, so I want you to think about this very carefully. Here's how the class works. The instructor shows up on Monday. Students have not seen the case. Instructor comes in, says hello, six to eight students, distributes the first case and sits down. The instructor says nothing. Eventually, one of the students gets up and reads the case aloud. Remember, it's about half a page. The instructor still says nothing. At which point the students start a discussion: What do we know and what don't we know about this patient? What terms are unfamiliar? Room's filled with medical dictionaries and medical encyclopedias. They start looking up terms. The instructor still says nothing. Eventually, they try to understand the mechanisms that are at work. The patient has a bad cough. One of the students says, "You know, it's probably related to the way the lung functions. Do we really understand lung functioning?" No. One student goes up to the blackboard and writes up "lung functioning."

Another student says, "Well, that might be connected to smoking." And they begin to develop a learning agenda, a set of hypotheses: what do we need to understand, where can we find it, and who will be responsible? Tuesday is spent in independent reading and research. Students go out and they study the issues they have framed as part of the

learning agenda. Wednesday they come back, they share their findings, receive the next case, and the process continues. Now, to give you some sense of the instructor's role, at the Law School, instructors speak roughly 50 percent of the time. At the Business School, it's considerably less. One of my doctoral students actually put a stopwatch on me during one class, unlike this one—a discussion class. I spoke 15 percent of the time. At the Medical School in tutorials, the instructors speak 5 to 10 percent of the time.

Now, what role do they play? They ask three kinds of questions. First, reflective questions: why might that be true? Second, testing questions: are you sure of that? Could that be something you should look up? And finally, they do ask leading questions. When the students get lost, they'll ask a specific probe. And as a student put it, it's as if we're wandering in a dark tunnel, and the best tutors shine a light from under a door and help us lead the way out.

Purpose/Rationale: Now, why do you teach this way? This is a very different way of approaching the case method. It's really a motivation and a context for learning science. It's based on ideas of cognitive learning, which say that learning is most easily retrieved, remembered, when it's linked to a specific context. The context is the case, the patient. This is a form of learning basic science, but linking it to a particular situation. But even more important is—remember, the words. The key word in the Law School is precision, and the key word in the Business School is action. The key word at the Medical School is inquiry, or learning. I asked Gordon Moore, who designed this program, what his objectives are in a tutorial. And he said, "It comes down to ignorance. I have three objectives." Remember, this is medicine. Lives are at stake. "I want my students to know where they're ignorant and need to learn more; second, to feel acutely uncomfortable with being ignorant and not having the knowledge; and third, to be able to figure out how to resolve their ignorance and learn what they need."

I want to come back to Benito's question now about law. Whereas law is rooted in precedent, medicine is constantly, constantly changing. You simply can't learn everything in four years of medical school and be prepared for the rest of your medical practice. I want you to think for a minute because it should be clear that there is no single best case method. Each of these case methods is designed to do something very different. The problem that all of the schools have is that they have such a strong center of gravity, precision, action, inquiry, or learning, and they need to develop combinations of the three.

Concerns: So if you ask the folks at the Medical School, what's the problem, the problem is, if you don't have an awfully skilled tutor and students get lost, they can stay lost. This is very complicated stuff you're trying to figure out. I saw a tutorial where the students spent 80 percent of the time asking each other questions. And I later asked the tutor what was going on. He said about 50 percent of that was going down blind alleys. Now, he was very skilled. With just a few clarifying questions, he helped steer them back so that they could understand what was going on. Without that level of skill, it's enormously frustrating. You lose the precision of thinking. Remember, they don't focus on action. If you ask the tutors what's missing, they say, by the time you get to the second or third years, there are choices to be made. There are alternative treatment plans. We need to figure out a way to incorporate those kinds of cases in the curriculum.

But this method has tremendous strengths. You teach teamwork. This is much more collaborative. One of the students at the Medical School said, "Think about it this way. In a typical class—not a medical school class—you want your fellow students to be unprepared because then you look smart." He said, "In a medical school tutorial, you want your fellow

students to be fully prepared, because the only way we figure out what's going on is by each of us sharing what we've done in studying the day before." Very powerful methods, but also with weaknesses. Gustavo?

GUSTAVO: Do you have here at the Business School teams, small teams, small groups?

PROFESSOR GARVIN: Wonderful question. I've just written an article about this, and when I wrote the first draft of the article, the editor came back and they said, "You've got very clear pictures of the three schools. Are they beginning to move together? Are they thinking about each other's approaches?" Well, I gave an answer to Jonathan's question—what's happening at the Law School? They're thinking more about collective responsibility for teaching. I sat down with Carl Kester, who's the head of our MBA program. He said, "We just finished a task force, a faculty task force, to talk about the possibility of introducing small group discussions into the required curriculum. Now, we haven't figured out how to do that or even decided if we will make that commitment, but it's clear that that's the missing piece in our curriculum."

I went to the Medical School, and I said, "What's going on at the Medical School?" And they said, "We're trying to add more structure, and precision, and discipline, and decision making to the second-year tutorials, because once students have mastered this inquiry process, we need to move to the next level." So what you're seeing is an ever-so-slow convergence of each of the schools learning from each other.

Now, I don't want to keep you too much longer, so what I want to do is leave you with one final thought, because there is a common denominator across all three of these schools. David Hume is a very famous Scottish philosopher. And Hume once said, "Truth springs from arguments amongst friends." And I'd urge you to think about your classrooms. Law School, Business School, Medical School—they all have this philosophy. Truth requires two things. One, it really requires arguments, disagreements, debates, multiple points of view. But it also requires mutual support. That's where the friends come in. They can be friends who just happened to have gathered for this week and a half, or friends who happened to have gathered for the semester, or doctoral students who have gathered for two, three, or four years. But there needs to be mutual support, and the reason is that learning is a risky business. It's tough. The arguments are easy. To encourage the support is what often makes the difference between good and great classes.

OK? Let's wrap up now. We'll take a break.