Welcome back to our final lecture on Gilbert Ryle and the question, is knowledge a state of mind, as well as our last lecture for this part of the course after which we will beginning a new and final topic, Ethics and Political Philosophy.

But let’s jump right back into Ryle’s critique of the intellectualist view of knowledge. Remember, intellectualism, Ryle says, is a myth. It’s specifically the myth that competence and performance, what he calls knowledge how, is the result of one’s first possessing a body of true beliefs, what he calls knowledge that. So what Ryle calls the myth of intellectualism is this view that, well, the reason I can competently perform a task is because I first acquired a set of true beliefs which serve as kind of instructions for performing that task. So the reason I know how to do something is because I know that a bunch of things are true, and those truths serve as a kind of guidebook in performance. And Ryle says that this is a myth.

His own view is that the very ability to acquire and to deploy propositional knowledge, knowledge that, is itself a form of competent performance. So my ability to learn these truths which are supposed to play this role of sort of instructions in competent performance — my ability to acquire those true beliefs and to adequately deploy them, Ryle says, is itself a form of competent performance. And so for Ryle, contrary to the traditional view, knowledge how precedes knowledge that and not the other way around. Competence in performance is prior to the acquisition and deployment of propositional knowledge and not the other way around.

He says this — this is sort of the running theme throughout the essay. He says it explicitly on page 219. If you look at the top of the page, he says, “Ratiocination” —
and ratiocination is rational thinking, the kind of thinking that we do when we acquire facts. He says, “Ratiocination is not the general condition of rational behavior, but only one species of it. Yet the traditional associations of the word rationalist, such that it is commonly assumed that behavior can only be rational if the overactions taken are escorted by internal operations of considering and acknowledging the reasons for taking them. People equate rational behavior with premeditated or reasoned behavior.”

Okay. And so the idea is — the alleged myth that Ryle is fighting against is this intellectualist notion that every competent performance is the result of following a set of instructions that are, in a sense, stored in the mind as true beliefs, as propositional knowledge, as knowledge that.

Ryle’s argument both against the intellectualist myth and on behalf of the view that performative knowledge precedes propositional knowledge, that knowing how precedes knowing that — his argument for both of these theses — and I’m gonna call the first the negative thesis because it’s a criticism of a position. I’ll call the second the positive thesis because it is the assertion of a positive position. His argument for both of these theses, both negative and positive, is comprised of a few elements and so let’s sort of work through each of the elements of the argument.

The first thing that Ryle — the first element is a closer examination of the intellectualist claim. What conclusions must one draw if the intellectualist thesis is true? Ryle makes an observation here that seems to me to be absolutely correct. He says, “Look. If the intellectualist is correct, if propositional knowledge, knowledge that, was sufficient to explain performative knowledge, knowledge how, then you’d expect
that if a person had the relevant propositional knowledge then competence in performance should be assured.”

So, for example, let’s take the performance to be competent chess playing. If the intellectualist is correct that competent chess playing is the result of having a set of true beliefs about chess — in this case, the relevant true beliefs would be to know the rules of chess and to know the chief strategies of chess playing. If the intellectualist is correct about this, then that means that anyone who knew the rules of chess and also knew the strategies of chess in the sense of having propositional knowledge should automatically be a competent chess player. But of course this is not true. This is just simply not true. If someone’s a lousy chess player, simply having them memorize the rules of chess and teaching them the strategy of chess is not necessarily going to turn them into a good chess player. Indeed, one might find that one could teach this person all of these rules, all of this information, all of these facts about chess playing, and then you’ve put them on a board against an opponent and they still can’t play chess.

Another example of knowledge how, knowing how to ride a bike, a competent performance which would be good bike riding. Think about this. If the intellectualist is correct, then whoever — anyone who had the relevant true beliefs about bike riding — in this case it would be a set of instructions like sit on the seat, put your feet on the pedals, turn the pedals around, so on and so forth. If the intellectualist is right, then anyone with the relevant propositional knowledge about bike riding should then become a good bike rider. And, of course, this also isn’t true. The fact of the matter is that one becomes a good bike rider by riding a bike. One doesn’t become a good bike rider by
being taught the rules of bike riding.

And so these are just sort of two examples. Oh, and notice conversely. A person could be an excellent bike rider without having ever been given any instructions at all. In other words, one of the ways in learning a skill like bike riding is simply to get on the bike. Not to read an instruction manual, not to read a book about bike riding, but just to get on the bike. And notice not only is it not the case that a person who read the book, who knew the rules of bike riding, wouldn’t necessarily be a good bike rider. But, conversely, one could be a very good bike rider without having ever read the rules on bike riding.

And the same thing with chess playing. Just as it’s not the case that the mere fact that one knows the rules of chess and knows the strategies of chess in the sense of propositional knowledge, that one therefore would be a good chess player. That’s not true. But also, conversely, one could be a very good chess player without having ever being explicitly taught the rules and strategies of chess. Indeed, that’s how I learned chess, simply by playing with my father. And as I played I started noticing the way the pieces moved and stuff like that. It’s sort of a bootstrapping process of learning how to play chess.

If you’ll look on page 215, right in the middle, Ryle says, “What facts — what sorts of facts are known to the sensible which are not known to the silly? For example, what truths does the clever chess player know which would be news to his stupid opponent? Obviously, there is no truth or set of truths of which we could say, ‘If only the stupid player had been informed of them, he would be a clever player.’ Or, when
once he had been apprized of these rules, he would play well. We can imagine a clever player generously imparting to his stupid opponent so many rules, tactical maxims, etc., that he could think of no more to tell him. His opponent might accept and memorize all of them and be able and ready to recite them correctly on demand, yet he might still play chess stupidly. That is, he might still be unable intelligently to apply the maxims."

All right. So this is simply the example of you can’t take a bad chess player and turn them into a good chess player. You can’t take someone who’s incompetent at chess and turn ‘em into a competent performer simply by having him learn, acquire a set of propositional knowledge, a set of true beliefs about chess playing. So this is sort of the negative part of the thesis. This is where Ryle really denies the intellectualist claim that knowing that is prior to knowing how. That in order to acquire a competence, one first must acquire a body of true beliefs.

Now, the second element of Ryle’s argument goes something like this. Ryle points out that both the acquisition and the deployment of propositional knowledge is something that also can be done competently and incompetently. One can either competently or incompetently acquire information. One could also either competently or incompetently deploy that information. The intellectualist claims that it is in the acquisition and deployment of propositional knowledge, of true beliefs, that we develop the capacity to engage in competent performances. But as Ryle points out, the acquiring and deployment of true beliefs is itself a kind of performance and it can be done competently or incompetently. In other words, one can be a poor learner and
even if one is a good learner, one can be a poor applier of what one has learned.

Ryle gives the example of a logic student who’s sort of bad at doing proofs. He’s bad at identifying the conclusions that follow from a set of premises. And Ryle says, you know, suppose we give this kid a lesson in logic. And so we teach him a bunch of rules and he acquires a bunch of propositional knowledge about the rules of inference, about logic. That body of propositional knowledge will only be of use to him if he is able to deploy it in practice. And he might still be bad at that. In other words, he may absorb these facts, these truths, like a sponge and then when it comes to employ them in the actual identifying of the conclusions that follow from groups of premises, he might still be lousy at it.

This example appears on 216. First Ryle prefaces it. He makes the point — sort of the general point that we’re making. He says, towards the top, “It requires intelligence not only to discover truths but also to apply them. And knowing how” — notice the expression there — “knowing how to apply truths cannot, without setting up an infinite process, be reduced to knowledge of some extra bridge truths. The application of maxims, principles, etc., is certainly not any mere contemplation of them. Equally certainly it can be intelligently or stupidly done.” I’m gonna get to the point about the infinite process in a minute. Right now let’s just stick with this point. That the acquisition of propositional knowledge and the deployment of propositional knowledge is itself a kind of performance that can be done competently or incompetently. Let’s just focus on that for now.

Here’s the example. A pupil fails to follow an argument. He understands the
premises and he understands the conclusion, but he fails to see that the conclusion follows from the premises. The teacher thinks him rather dull but tries to help. So he tells him that there is an ulterior proposition which he’s considered — namely, that if these premises are true, then the conclusion is true. The pupil understands this and dutifully recites it alongside the premises. And still fails to see that the conclusion follows from the premises, even when accompanied by the assertion that these premises entail this conclusion.

So a second hypothetical proposition is added to his store — namely, that the conclusion is true if the premises are true, as well as the first hypothetical proposition that if the premises are true, then the conclusion is true. And still the pupil fails to see, and so on, forever. He accepts rules in theory but this does not force him to apply them in practice. He considers reasons but he fails to reason. So not only is it not the case that the mere possession of a body of true beliefs, of a body of propositional knowledge, is sufficient to explain competent performance, but the mere acquisition of a body of propositional knowledge is itself a kind of performance that could be done competently or incompetently.

Now, here’s the kicker. Here’s where Ryle really puts the knee into the back of the intellectualist theory. He says, “Look. If the acquisition and deployment of propositional knowledge, of knowledge that, is itself a kind of performance that can be done either competently or incompetently, then if intellectualism is true, that would mean that we need yet another body of propositional knowledge to explain this performance.”
So in order to keep things straight in our minds, let’s sort of imagine. The first performance is the playing of chess. This is what we want to explain. We want to explain competence in chess playing, knowing how to play chess. The intellectual says, “Ah, knowing how to play chess is the result of having acquired a certain body of propositional knowledge, namely the rules of chess playing.” Ryle points out, “Well, but acquiring the rules of chess playing is itself a performance. One needs to know how to acquire information and that can be done competently or incompetently.” To which the intellectualist then would have to say, “Ah, competence in acquiring knowledge, competence in acquiring the rules of chess, is itself the result of yet another body of propositional knowledge, a set of rules about how to acquire a set of rules."

I hope you can see that if we were to pursue this we would find ourselves in what’s called an infinite regress. We would constantly be trying to find yet another body of proposition knowledge to explain a particular competent performance, but then that acquisition of knowledge would itself require or would itself be a competent performance that would require yet another body of propositional knowledge to explain.

Ryle’s charge, in short, is that intellectualism quickly devolves into an infinite regress of competencies seeking propositional foundations. If you’re going to say that a competent performance is always the result of knowing some set of truths and if acquiring a set of true beliefs is itself a performance that needs to be explained, then there will have to be yet another body of true beliefs that will be invoked to explain that competence, and yet then that itself will be a competence in performance to acquire that set of true beliefs, and so on and so forth.
Page 219, toward the bottom of the main paragraph. “When we do as often happens go through the process of persuading ourselves to do things, this process is itself one which can be intelligently or stupidly executed. So if the assumption were correct, it would be necessary for us to start one stage further back and to persuade ourselves with the second order argument to employ first order persuasions of a cogent and not of a silly type. And so on ad infinitum. The assumption that is credits the rationality of any given performance to the rational execution of some anterior performance which would in turn require exactly the same treatment. So no rational performance could ever be begun. The practical syllogism” — that is, the practical syllogism is the idea of applying a set of rules in order to act — okay. “The practical syllogism fails to explain intelligent conduct since its explanation is circular. For the postulated syllogising would itself need to be intelligently conducted.”

It’s precisely this problem of infinite regress, of the fact that intellectualism would seem to lead to an infinite search for a propositional foundation for a competent performance, that leads Ryle to think that in reality things are exactly the opposite as the intellectualist says. The intellectualist says that knowing that precedes knowing how. Ryle has demonstrated or exposed that this leads to an infinite regress of searching for propositional support for a competent performance. So Ryle turns things around. He says, “No, no, no. It’s knowledge how that proceeds knowledge of that. You first have to be competent. You have to know how to do certain things in order to be able to acquire a set of true beliefs, a body of propositional knowledge, and successfully deploy it.” So knowledge how is prior to knowledge that, and not the other
way around as philosophers traditionally have thought.

Two questions remain. So once we’ve sort of digested all of this, of course there are two things — there are two things left over that we want to add. The first question is what role if any does propositional knowledge, knowledge that, play with respect to competencies? So Ryle has just said, well, propositional knowledge, knowledge that is not the predicate upon which performative knowledge, knowledge how, is based. The question now is, well, what relationship is there between propositional knowledge on the one hand and performative knowledge on the other? That’s the first question we want to ask. Thus far, Ryle’s critique has been entirely negative and he hasn’t really explained any positive relationship between propositional knowledge, on the one hand, and knowledge how on the other.

The second question that we’re gonna want to ask is how are competencies acquired? Ryle has told us, first of all, that competencies are not the result of prior knowledge acquisition, of the acquisition and deployment of propositional knowledge. He’s also said that performative knowledge of competence has to come prior to any acquisition and deployment of propositional knowledge. What he hasn’t told us yet is how performative knowledge is acquired, how does one become a competent performer. And I’m gonna handle each of these questions in turn — in order.

First, what is the role or relationship of propositional knowledge with respect to, vis-a-vis, performative knowledge? Ryle here says again — provides what I think is an awfully interesting inversion of what people ordinarily would think. Ryle says, “Performance relative to propositional knowledge” — so we’re talking about those true
beliefs that are in some way relevant to our performance. Like, for example, the propositions that describe the rules of chess. Let’s stay concrete. So we have a body of statements, true statements, that comprise the rules of chess playing. Ryle says that such performance relative to propositional knowledge. They don’t provide the grounds from which competent performance arises. Rather, they are a description of what a competent performance consists of.

So, in other words, the rules of chess aren’t prior to good chess playing. They’re not the cause of good chess playing. They come after good chess playing. They are a description of good chess playing. So Ryle’s conception of rules is that they are descriptive, not prescriptive. That they are — they come after a competent performance, not before it. They primarily describe a competent performance. They don’t engender a competent performance.

He says this in two separate places. On page 218 towards the bottom he says, “The propositional acknowledgment of rules, reasons or principles is not the parent of the intelligent application of that. It is a stepchild of that application.” On page 222 he says, “You couldn’t define a good chef as one who cites Miss Beaton’s recipes.” I gather Miss Beaton was a famous cookbook writer. He says, “You couldn’t define a good chef as one who cites Miss Beaton’s recipes for those recipes describe how good chefs cook. And anyhow, the excellence of a chef is not in his citing but in his cooking.”

So the first thing that he says about the relationship between propositional knowledge, knowledge that, and performative knowledge, knowledge how, is that the
performance relative propositional knowledge like the rules of chess or instructions on
how to ride a bicycle, the instructions for bicycle riding — these do not engender
competent performance. They are descriptions of competent performance. Okay.
So what role does it have to play in acquiring the competence? What role does
propositional have to play in acquiring the competence and how are the competencies
acquired?

Ryle acknowledges that propositional knowledge does have a role in acquiring
competencies, but it is only one piece of a larger puzzle. Knowledge of rules and
principles and other performance relevant propositional knowledge comprise one way of
showing a person how to do something. So one way to show a person how to play
chess is to show them the rules. Of course another way of showing a person how to
play chess is to have them watch you playing chess. And Ryle wants to say you need
to do both if you want to teach someone how to play chess. You need to have them
read the rules because there is a very nice, laid out, clean description of competent
chess playing. It also helps to have them watch a person play chess.

Same thing with cooking. One way to teach a person how to cook is to show
them competent cooking by way of showing them recipes. A recipe, of course, for Ryle
is a description of competent cooking. Another way is to have them be around cooking
a lot, watch them cooking. My daughter sits in the kitchen and watches me cook
dinner. In doing that, it’s part of how she learns to cook.

Ryle describes performance relevant propositional knowledge — he gives two
descriptions. He says — he calls them in one place manuals for novices. Another
place he calls them bannisters for toddlers. What these are attempting to invoke is —
are one form of support, right? A toddler learns how to walk. Well, one thing that
helps him learn how to walk is a bannister. Another way that he learns how to walk is
you giving him a set of instructions. “Well, do this and then pull yourself up, and then do
that.” Another way is by watching you walk.

The manuals for novices and bannisters for toddlers accounts come on page
221. He’s asking here the question, well, what use is propositional knowledge in the
acquiring of competencies. He says, quote, “What is the use of such formulae if the
acknowledgment of them is not a condition of knowing how to act but a derivative
product of theorizing about such knowledge?” He says, “The answer is simple. There
are useful pedagogically, namely in lessons to those who are still learning how to act.
They belong to manuals for novices. They are bannisters for toddlers. That is, they
belong to the methodology and not to the methods of intelligent practices.’

So performance relative propositional knowledge describes competent
performance. Thus, it’s one part in teaching a person how to competently perform a
task. Because, surely, one part of learning how to competently perform a task is to see
the task competently performed. That can be done by watching someone do it. It can
also be done by reading a description of a competent performance, and that description
will comprise a set of propositional — a cluster of propositional knowledge, a body of
propositional knowledge.

But, of course, in acquiring a competency, the capacity to do something
competently, an instance of knowing how, is not simply a matter of being shown it. You
have to practice it yourself. And this is the second and more important element of how competencies are acquired, how knowing how is acquired. Ryle says it’s acquired by discipline and inculcation, not by explicit instruction. When we talk of explicit instruction, what we mean is one person imparting a set of truths to another through writing or through speech. So if I have you in a classroom and I teach you — I say, “Okay. Here’s a list of the ten most important philosophers,” and I write down the names and I write down their dates, and I give you their biographies. That is explicit instruction. I am imparting to you a set of true statements, your acquisition of which will constitute a body of propositional knowledge.

Ryle says competencies are not acquired in this way. They’re not explicitly taught. They’re acquired by way of discipline and inculcation. And what Ryle really means to indicate is a mode of education that lies between two poles. On one side we have explicit instruction, the imparting of truths. On the other side we have what we would call habit formation or drilling which is a purely behavioral form of inculcation. So the way that you teach your dog how to grab the newspaper is to just throw the newspaper over and over again, reward him when he fetches it, don’t reward him when he doesn’t fetch it, and eventually he will acquire the habit of newspaper retrieval.

So we have two poles — two ways of education that represent two poles. We have explicit instruction in which one imparts a body of truths. This results in propositional knowledge. Then we have sort of blind habituation or drilling, the result of which is an acquired habit. The acquisition of a competency in performance, performative knowledge, knowledge how, Ryle says, “lies in-between these two poles.’
There is a role for explicit instruction. There's a role in being shown, given descriptions of competent performance. That would be the performatively relative and propositional knowledge. There is also a role for a kind of repetition. And somewhere in-between both of these techniques the relevant competency is acquired.

Page 223, in the middle, quote: “Learning how differs from learning that. We can be instructed in truths. We can only be disciplined in methods. Appropriate exercises corrected by criticisms and inspired by examples and precepts can inculcate second natures, but knowledge how cannot be built up by accumulation of pieces of knowledge that.”

And let's bring this back to the larger question of education and schooling, and how education and schooling are done. The best environment or venue within which competencies, performative knowledge, are inculcated or acquired is in the context of apprenticeship and tutorial. Apprenticeship is a word that I think everybody is familiar with. This is where typically we find apprenticeship in the crafts and this is where you'll have a novice who wants to become a master craftsman, that's attached to someone who's already a master craftsman, and that person sort of teaches them in the ways of the craft.

A tutorial is sort of the intellectual equivalent of an apprenticeship. We don't employ the tutorial in the United States in higher education or certainly not in primary or secondary education. In the United Kingdom the two great universities, Oxford and Cambridge, still employ the tutorial for undergraduate instruction. The way the tutorial works is that you don't have lectures or classes. You meet several times a week with a
tutor, one on one, and the tutor gives you assignments, gives you things to read, you
discuss projects and plans. You then go off and do most of the work on your own.
You then, in a sense, report back to the tutor with your findings and you have a
discussion with the tutor. The tutor fine-tunes what you’ve done, tweaks what you’ve
done, talks to you a little bit about what you’ve done, maybe shows you a similar piece
of work that he’s done in order to demonstrate to you what a finished, complete piece of
work would look like, and so on and so forth. This goes back and forth, back and forth,
until the end of the semester when the course is over, when the tutorial is over. In
Oxford and Cambridge all undergraduate instruction is done this way, incidentally.

Now, what is so key about apprenticeship and tutorial with respect to the
acquisition of competencies? Notice that both in apprenticeships and tutorials we have
both the process — we have both explicit instruction but certainly the master craftsman
is going to provide the apprentice, the novice, with some propositional knowledge.
He’s going to impart certain propositional knowledge about, let’s say, cabinet making to
the novice. Notice, though, he’s also going to supervise the novice’s practice of
cabinet making.

So a good part of a cabinet making apprenticeship is going to involve making
cabinets, and as a novice the first cabinets you make will stink. And the master
craftsman will stand beside you while you’re making these lousy cabinets and he’ll
make little corrections here and there, and give suggestions here and there. He might
take his own piece of wood and show you how to do what it is he wants you to do, as
well as perhaps give you a book on cabinet making where you can read a description of
competent cabinet making. But the point is an apprenticeship and a tutorial both involve both the explicit aspect of instruction and the habituation aspect of instruction.

Classroom instruction, the kind of learning that one receives in a typical university in the United States, is entirely explicit instruction. Especially when you’re talking about large classes. Really all the professor is is an imparter of information, a conveyor of propositional knowledge. This would not be a problem were it not for the fact that, as Ryle points out, all knowledge ultimately is a matter of performance. Even that knowledge which we think of as most propositional in its character — let’s say learning mathematics, right, where you have to learn a set of rules and a set of principles and a set of axioms, and so on and so forth — even that is ultimately a matter of performative knowledge because one has to know how, know how, to acquire and employ that propositional knowledge.

In other words, because Ryle believes that all knowledge is ultimately a type of performance, the apprentice tutorial model is the best form of education for every subject. Not just for cabinet making but physics as well. He says on page 224, “The fact that mathematics, philosophy, tactics, scientific method and literary style cannot be imparted” — i.e., by implicit instruction — “but only inculcated in the matter of a competency reveals that these two are not bodies of information but branches of knowledge how. They are not sciences but in the old sense disciplines.”

All right. We used to refer to the different subject areas as different disciplines. This conveyed the sense in which they were as much bodies of knowing how, bodies of performative knowledge, as they were bodies of propositional knowledge, of knowledge
that. And yet today, if you look around the educational landscape, virtually all higher education consists of explicit instruction. One can only conclude that this indicates an utter lack of understanding of what knowledge is and how knowledge is acquired. If Ryle is correct — and I think to a large extent he is correct — that all knowledge is at least in part a matter of knowing how to do things, a matter of competent performance, then the kind — the way that we’re providing this knowledge is utterly inadequate. If all knowledge is at least partly if not entirely performative knowledge, then we’re going about imparting it the wrong way. We are almost exclusively conveying knowledge in the classroom. And in the classroom, really all that one can do is impart explicit information, impart knowledge that.

Last quotations on pages 224 to 225. Yeah, I already read the quote. He says, “The fact that mathematics, philosophy, tactics, scientific method and literary style cannot be imparted but only inculcated reveals that these too are not bodies of information but branches of knowledge how.” Then he says on the next page, 225: “The uneducated public erroneously equates education with the imparting of knowing that. Philosophers have not made it very clear what the error is. I hope I have provided part of the correction. Effective possession of a piece of knowledge, that involves knowing how to use that knowledge when required for the solution of other theoretical and practical problems. There is a distinction between the museum possession and the workshop possession of knowledge. A silly person can be stocked with that information and yet never know how to answer particular questions.”

This little quip about the museum possession versus the workshop possession,
right? What’s a museum? A museum is just a building where objects sit in the building. That’s how Ryle thinks of knowledge that. It’s your brain like a room with pieces of information sitting inside it. None of that does anyone any good unless one has knowledge how. What he calls workshop possession where one doesn’t only have objects sitting inside a room but where one is — those objects are being employed. That is a competence in performance. It is never going to be acquired in a purely classroom setting. One is never going to learn how to do things, even how to acquire propositional knowledge, if nothing more is done than the imparting of information through explicit instruction.

And so our very methods of education, the way that we impart knowledge at both the primary, secondary and the university level, reflects in Ryle’s view a profound misunderstanding not only of the difference between knowledge how and knowledge that but of the fact that — it represents a failure to recognize that knowledge how is primary and that knowledge how is acquired primarily by way of inculcation, and thus is best accomplished within the context of apprenticeships and tutorials and not in the context of explicit classroom instruction.

Okay. Let’s close the book on Ryle here and also on this subject, and more generally on the second part of the course. You will have an exam on this material reaching all the way back to our first discussions on the subject of knowledge. Next time we’re going to begin our discussions of ethics and political philosophy which comprise the last part of this course. I won’t leave you with anything to think about yet since you’re all gonna be thinking about preparing for your exam. Next time I will
simply introduce the subjects before we start diving into details.

Good luck on your second examination and I will see all of you next time. Thank you very much.