

Teaching Portfolio

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Chapter 1

Statement of Teaching Philosophy

I think the best favor I can do for my students in a philosophy class is to make them question beliefs that they have never before questioned. If I can sow doubt where there once was certainty, and show that many issues that look obvious are on second glance quite complicated, then I've started them thinking about how to resolve those doubts. They will then almost automatically find themselves in the game of giving *reasons* for what they believe. And that, I think, is the goal of most philosophical teaching.

This is a difficult goal, since (as we all know) currently held beliefs and modes of thinking are much more comfortable than novel ones. The best way I've found to meet this challenge is through demanding *engagement* from my students. If they treat my class as a place for passive reception of philosophical ideas, then it will be only an exercise for them of remembering which crazy philosopher thought what crazy thing. The material can end up filed away in an intellectual vault, safely isolated from the student's own deepest convictions, and only dredged up later for cocktail parties. If, on the other hand, I can get them to toy with the ideas "online", and to think themselves—even experimentally—along the same unusual lines as those philosophers, then I think they've really learned how to *do* something of use: to think in new and more reasoned ways.

My first main tactic for engaging my students is to make the classroom a comfortable place for interaction. I design icebreakers for the first day so that each student gets used to speaking in class. As often as possible, I ask provocative questions and wait for responses, rather than preach the standard answer. I am constantly demanding questions and comments from my students. I keep my lectures flexible enough to follow the genuine interests of the students where I can. This flexibility is all the easier due to my training in theatrical improvisation, which also helps keep the material fresh and entertaining. Laughter is common, but so is earnest debate, and often both at once. Throughout, I exhibit my own sincere enthusiasm for the issues—I find this makes students less shy about being interested themselves. Perhaps most importantly, I show my genuine interest in and respect for the students and their ideas. As a result, my classes

consistently foster active discussion.

My second tactic for engaging students is to motivate the abstract philosophical problems at hand. My introductory syllabus, for example, starts with crime and the justification of punishment. Whether to be “soft” or “hard” on criminals is a real-world issue that engages students immediately. This topic then serves as a springboard for the rest of the course. It first motivates the study of ethics, especially since standard theories of punishment line up neatly into utilitarian and deontological camps. From there it is a natural segue to moral responsibility and free will, and then from there to the mind-body problem. Throughout I pressure them to develop a consistent stance across the suite of topics. By the time we start studying epistemology, the students are in enough doubt to see the the point to a general study of knowledge.

My third tactic for engagement involves innovative use of technology. Instead of writing notes on a blackboard, for example, I now write them in an HTML composer that is projected onto a screen. This “virtual blackboard” allows me to post the notes on the web later, and that in turn allows the students to focus on the material at hand instead of jotting down definitions. I find this method is more flexible than handouts, because it allows me to follow students’ interests and questions on the fly. But it is also more structured (and legible!) than blackboard notes. This technique has proven very popular with students. I am also an “early adopter” of technological tools like the Moodle course management software, and David Velleman’s online logic text *Blogic*.¹

Fourth, I design paper assignments in a way that demands of them to pick a contentious philosophical topic and write on *both* sides of the issue as sympathetically as possible. In this way I guarantee that every student who passes my class has at least toyed with arguments that do not come naturally to them.

Finally, I constantly look to improve my teaching. I take evaluations and feedback very seriously. Through the years I’ve worked closely with Michigan’s Center for Research on Learning and Teaching. They have consulted with me individually about my classes, and I have worked with them to develop and present seminars for new graduate student instructors on topics like learning disabilities and diversity.

Teaching is a joy for me. (Okay: *except* the grading.) Seeing the amazement on a student’s face as the penny drops for the first time about some philosophical topic, I’m reminded of why I study this material myself. It’s very like seeing your hometown fresh again through a visitor’s eyes. This genuine pleasure, perhaps, is my most effective tool for engaging the students.

¹See <http://moodle.org> and <http://www.nyu.edu/classes/velleman/blogic/>, respectively.

Chapter 2

Teaching Responsibilities and Interests

2.1 Teaching Responsibilities

Here, in reverse chronological order, are the classes I will have taught (or co-taught) by the fall of 2006. I include with each a brief description. More details are available from my website,

<http://stevepetersen.net/professional>

2.1.1 Kalamazoo College Teaching Responsibilities

All Kalamazoo courses have enrollment capped at 30 unless otherwise noted. Kalamazoo College is on a quarter system; each class lasts 10 weeks.

Early Modern Philosophy Spring 2006, Philosophy 206. This course is intended to cover the major works of Descartes, Leibniz, Locke, Berkeley, and Hume, with a brief introduction to Kant. The main text will be Cummins and Owen (1999).

Metaphysics and Mind Spring 2006, Philosophy 308. I'll co-teach this class with Ashley McDowell. We intend to cover topics at the intersection of metaphysics and mind, such as personal identity, free will, and the mind/body problem. There is not likely to be one central textbook.

Theories of Knowledge Winter 2006, Philosophy 106. An introductory epistemology course. I plan to construe this as more than just theories of knowledge, and so to cover introductory topics in justification as well (such as the structure of epistemic justification). I hope to use the out-of-print Crumley II (1999) if I can. (See the related proposed syllabus in section 4.2.)

Senior Seminar Fall 2005–Winter 2006, Philosophy 490. As the name suggests, this is a small seminar for senior majors only (there are seven this year). Ashley and

I co-designed and co-teach this course. Students present their honors thesis work for peer (and instructor!) commentary during half the classtime. The other half we spend on a chosen philosophical topic. This fall we are reading about the role of intuition in reflective equilibrium and philosophy more generally, using DePaul and Ramsey (1998). In the winter we will concentrate on the related topic of inference to the best explanation.

Philosophy of Artificial Intelligence Fall 2005, Philosophy 216. This course is designed as an introduction to the philosophy of cognitive science; see the complete syllabus in section 4.4, and the exercise in 5.9. We cover functionalism, Searle’s Chinese Room argument, debates between “classical” and “connectionist” AI, dynamic and embodied approaches to AI, and finally examine prospects for mental content, qualia, and the emotions. We use Clark (2001), Haugeland (1997), and Lycan (1999), with Churchland (1988) recommended. (I normally prefer to assign fewer texts, but after a great deal of thought I decided this was the best combination available.)

Philosophy of Science Spring 2005, Philosophy 206. This course is an introduction to the philosophy of science; see the complete syllabus in section 4.5. We covered the demarcation problem, the nature of explanation, the relation between theory and evidence, problems of theory choice, and the role of values in science. The text was Klemke et al. (1998).

Logic and Reasoning Winter 2005, Philosophy 107. This is intended as the standard “informal logic” or “introductory logic” course. My approach is unusual, however: we used David Velleman’s fascinating, free online textbook *Blogic* for the formal logic, supplemented by class discussion and lecture. We then covered informal aspects of logic through a combination of class lecture and students’ own argumentation on topics of importance to them, presented in class and on various online discussion forums. This provided hands-on opportunities to evaluate the strengths of their own and others’ arguments. (See also section 5.7 for a sample handout from this course.)

Introduction to Philosophy Fall 2004, Philosophy 101. See section 4.1 for a complete syllabus, 5.8 for a sample handout, and 3.2.1 for complete student evaluations. I designed this course to take students from practical, “real-world” problems into the more theoretical questions of philosophy. This method has proven very successful. We start with questions about the justification of punishment (whether to be “hard” or “soft” on criminals), and use this as a springboard for discussion of both ethics and free will. This in turn leads us naturally to philosophy of mind, and finally into epistemology. The text is Feinberg and Shafer-Landau (2005).

2.1.2 University of Michigan Teaching Responsibilities

I list only the courses for which I was *solely responsible* here. During the 2003–2004 academic year I was a “visiting assistant professor”, and before that a “GSI” (graduate student instructor).

University of Michigan classes are 14 weeks or, in spring and summer terms, 7 weeks of double classhours. Enrollment is two sections of 25 during the regular term and one section of 50 in spring and summer.

Knowledge and Reality Spring 2004, Philosophy 383. This course is an upper-level metaphysics and epistemology introduction. On the epistemology side we covered skepticism, potential responses such as contextualism, and the structure of epistemic justification. On the metaphysics side we studied the history of the problem of universals, and also covered some philosophy of identity and issues in realism. The text was Cahn et al. (2004), but I don't think I would use it again.

Introductory Logic Winter 2004 and twice previous, Philosophy 180 / 201.¹ I have experimented with this course a fair amount. Initially I used Kelley (1998) and taught it fairly standardly. Then I helped David Velleman develop a course based on his online textbook, *Blogic*. The last time I taught this course at Michigan, I used *Blogic* exclusively. But I have since come to feel that it's important to teach the informal aspects of logic as well, too; many students from the past had remarked that the fallacies, for example, are some of the most useful parts of the class. So I have now moved to a more balanced syllabus, as suggested in section 2.1.1 above.

Introduction to Philosophy Fall 2003 and twice previous, Philosophy 181 / 202. This course has always been very successful, and so I have done little to change the syllabus; the course as described in section 2.1.1 is much as I taught it at Michigan.

Mind, Matter, and Machines Spring 2002 and 2001, Philosophy 340. This is an upper-level introduction to the philosophy of science. The syllabus is in section 4.3, a handout from the course is in section 5.8, and a complete student evaluation is in section 3.2.2. About half the class was an advanced introduction to the mind-body problem, and after that we covered the topics of mental content and qualia in more depth. The text was Crumley II (2000).

Symbolic Logic Spring 2000, Philosophy 303. This is a course in formal logic, including metatheory up through the completeness and soundness proofs. See section 3.2.2 for the complete student evaluation. The text was Bergmann et al. (1998).

2.2 Teaching Interests

I have already had a chance to teach many of the courses I've most wanted to teach. But I relish the opportunity to teach more, and honestly I'm pretty happy to teach just about anything. Below are some thoughts about other courses I would especially enjoy teaching.

¹Mysteriously, it is called "180" when taught by a PhD and "201" when taught by a graduate student.

2.2.1 Graduate or upper-level seminars

Functions and mental content A course on the nature of functions, and whether and how they might ground the notion of mental content as suggested by philosophers like Ruth Garrett Millikan.

Formal notions of simplicity A comparison of various going formal proposals for measuring the simplicity of a theory, such as VC-dimension, Akaike's theorem, Bayesian and Minimal Message Length, and minimal retractions.

Emotions and artificial intelligence On the role and possible need for emotions in truly intelligent artifices.

Inference to the best explanation A close examination, perhaps with a case study such as cosmological arguments for God.

The explanatory role of knowledge A close reading of Williamson (2000) with responses on the role that knowledge plays in explanations of actions.

The aim of belief A survey of the current literature.

Ordinary language philosophy and modern conceptual analysis A critical comparison of old-fashioned ordinary language philosophy to modern debates over the role and nature of conceptual analysis.

2.2.2 Introductory or advanced undergraduate classes

Philosophy of language This would include various topics in semantics, pragmatics, mental content, rigidity, and the like. This is a past specialty of mine and I remain interested in several topics. I would probably use Martinich (1996) with supplements.

Advanced logic I would love to teach logic through Gödel's results. I would probably use something like Boolos and Jeffrey (1989).

Metaphysics By next fall I will have taught two courses that are "half" metaphysics, but I would like to teach a dedicated course. I would probably cover topics in modality, personal identity, realism, and perhaps free will and time.

Early analytic philosophy (Frege, Russell, Wittgenstein) I have a fair amount of background on this period in philosophical history, and teaching would help solidify it for me.

Pragmatism and American philosophy I have some background in this field and would like more, since my own work has much pragmatist influence. No better way to learn it than to teach it!

Philosophy of religion I have become more and more interested in this topic through issues in philosophy of science on explanation and the like. I see it as complementing philosophy of science as an important case study for epistemology

generally. I have taught it some in my introductory course and would like to teach more.

Ethics Though not close to my specialization, I have assistant-taught an ethics class with David Velleman, taught a section in my introductory course, and (aside from the usual coursework) I have simply absorbed a fair amount of ethics during my time at Michigan.

Pretty much anything else Really!

Chapter 3

Annotated Teaching Evaluations

What follows, I think, is a fair picture of my teaching evaluations at Kalamazoo College and, before that, at the University of Michigan. Copies of the originals are available upon request. They are typed here in order to facilitate your reading them and my commenting on them.

I have taught too many courses to make a complete set of evaluations feasible, so I've tried to design this summary to present the fairest representation of the comments that I can. In section 3.1, I present an indicative sampling of comments that span across several classes. Then, in section 3.2, I give the complete and unedited student evaluations for a few courses I have taught.

3.1 Overview of Student Comments, with Reflections

Here I try to summarize my corpus of student comments from three perspectives:

1. Some of the comments of which I'm most proud.
2. Exemplars of comments I frequently receive, indicative of patterns.
3. Comments that have most helped me improve as a teacher.

Note: 'GSI' is the Michigan term for a "graduate student instructor", whether the sole instructor for the course or a section leader.

3.1.1 Some comments of which I'm most proud

I present these without need for discussion.

- I really enjoyed learning in this class. For the first time, the enlightenment I felt from the knowledge I gained was truthfully more important than the grade. It was a wonderful course and you were a wonderful instructor.

- Steve is by far the best GSI and one of the best teachers I've had at this school. His lectures were clear and interesting, and he made every topic understandable with examples. His grading system was extremely fair (though by no means easy) and was as impartial as humanly possible. He was always willing to help students outside of class. Give yourself a pat on the back, Steve.
- I used to hate Philosophy, and thought it was boring. After this class, I have changed my views. I now think of it as stimulating and interesting. I think this is mainly due to the way the material was presented by Steve. He really, really did a great job.
- I especially liked how ideas and concepts were elicited from us rather than given to us.
- I believe that the very obvious passion that the instructor brought to this course made students in the class more interested in the often complex topics discussed. Furthermore, the fact that he made every effort throughout the semester to learn each student's name (in a large class) speaks well to his real dedication to each individual on a personal level.
- This class really stimulated me to think about some things. Never had a class where I would talk about what was said with friends outside of class. It was fun, and interesting. Papers caused me to rethink a lot of stuff.
- I personally struggled and Steve did everything possible to help me pass and get a grasp on things in the class.
- Great class! Best of the year for me! Teach exactly the same. Perfect balance of lecture and discussion. This is the only way to take a philosophy course. Thanks.
- This was the best class I've ever taken at U of M. Steve could teach underwater basket weaving and I'd take it.

3.1.2 Typical comments indicative of patterns

Below I present some examples of comments I get frequently. Together, they highlight my notable teaching strengths:

- leading engaging and open class discussions
- winning increased student interest in philosophy, and relating philosophy to more "practical" matters
- caring for students, their progress, and their comfort in the class
- modeling an enthusiastic and knowledgeable philosopher
- applying innovative techniques such as the "virtual blackboard"
- encouraging students to question their own beliefs

Again, this is not a complete list of my best comments. These comments are presented as *typical* of students' assessments of my strengths. As you read the selected comments below, the patterns I've suggested should be clear.

- To be completely honest, I only took this course because I needed humanities credits for distribution requirements. However, once I engaged myself in the class, my enthusiasm increased dramatically. This was, in most part, due to the way the class was run. Lectures / discussions were always fun and interesting, keeping me willing to learn as well as wanting to learn. I thoroughly enjoyed your teaching style.
- When this is all over, I'll be utterly confused and I'll probably question everything. Thanks.
- This class was very interesting. I originally took it solely to fulfill my humanities requirement in Engineering, but I believe I will continue on now, perhaps philosophy of the mind and symbolic logic. He was one of the best instructors this semester.
- Steve was a great and very informed instructor. He made class very interesting in actually spawned interest in me to take more philosophy classes.
- This was a great class! Steve did a nice job with keeping open discussion interesting. I am now looking forward to studying philosophy more in depth!
- Steve was a marvelous teacher. I really enjoyed this class. I found the material interesting, and I think that was due to Steve's teaching style. I enjoyed that Steve did not teach to the lowest common denominator. The pace was perfect.
- The web notes were useful b/c it enabled us to listen to what you were saying rather than just scramble to write it down w/out thinking.
- I loved the computer notes!
- I thought you encouraged in class discussion well.
- I learned a lot in this course that will contribute to my functioning as a scientist and just everyday life—very applicable knowledge.
- Yay for the website / Socratic method.
- This class definitely challenged my previous mindset about science. I thought he did a great job of remaining neutral and challenging what we believed.
- I learned a lot of useful techniques about forming arguments in everyday life and I learned how logic (formal logic) plays into everyday thinking.
- Great class, Steve's an awesome prof always trying to improve his class.
- I love Steve. He is fun, energetic, & he genuinely cares about his students & what they learn in his class. He is a great Prof.

- Steve really encouraged participation & was very good at keeping the open discussion under control & respectable.
- I really enjoyed it; keep Steve Petersen if you know what's good for ya'.
- One of the best teachers I have ever had!
- I liked how the class was often engaged in discussion and the class was presented in both a lecture and discussion format.
- He has an unwavering eye on being fair in his grading. Well prepared, concerned, approachable—overall a very good instructor.
- I absolutely loved this course. I found it to be very interesting and helpful with every day problems. I really enjoyed everything we did and it has encouraged me to pursue a philosophy major.
- Steve did a wonderful job of grabbing and holding my attention. He knew what he was doing, and where he was going with it and presented it in a clear and intensifying way. He is an excellent instructor.
- Steve is a great instructor! He's passionate about philosophy and it shows in his teaching.
- The instructor gave classes in an enthusiastic and interesting way and always made sure everyone understood the topics very well.
- Excellent class, will take more philosophy as a result.
- I was impressed to see that you took the time and effort to learn everyone's names. That shows your dedication to each individual student. Thanks for an educational and fun class.
- I felt the instructor was very knowledgeable on the subject and very approachable for comments and questions. He was always open to new ideas and taught class with great energy plus thoroughness. Probably my favorite instructor thus far.
- I think that Steve was the best teacher I have had in LS&A [Michigan's Literature, Sciences, and the Arts division]. Since I am not in that department, I don't take all academic classes but out of all the ones I have had, he was a better teacher than even most of my professors. This is because of his knowledge and deep interest in what he is doing and care for students. Bravo to this class.
- The instructor was outstanding in almost all respects, especially in teaching such difficult material. His skills would be maximized if more time was allotted for the class.

3.1.3 Comments that have most helped me improve as a teacher

There have been a few areas where student comments have provided invaluable feedback to my teaching. I highlight a few such below.

On class mechanics

One useful suggestion from a few students in the past was for online web notes:

- Stephen made a good adjustment after his evaluation to accommodate all student requests! I feel that Stephen can recognize student's difficulties or the difficulties of the class by posting web notes.
- I thought the instruction was very good. He tried really hard to keep things dynamic and interesting. The instructor can improve the teaching by posting notes online, and making sure the tests aren't too long. Post grades online! (With averages, standard deviation, etc.).

I was initially torn about such suggestions, because I like to keep my class discussions flexible, and providing notes ahead of time seemed too rigid. Eventually I hit upon my "virtual blackboard" technique, in which I write notes from class live into an HTML composer while projecting them onto a screen. This allowed for both flexibility and online posting. I also started posting my final grading spreadsheets (with students listed by ID) with full statistical information—I thought that was a very good idea.

A few other students suggested they would like a better overview of the course:

- A clearer outline/roadmap of the theories would be helpful.

An independent evaluator I invited from Michigan's Center for Research on Learning and Teaching agreed that a "concept map" can be useful. But, I learned, they are most useful if handed out early:

- He was a very good, enthusiastic teacher. He cared a lot about the course and wanted the students to learn. He should just assign a few less readings during the course. And also give us a copy of the map of the course, instead of go through it on last day. Great, great job. It was the most interesting class I took this semester.

So I developed "concept maps" for the courses that I have had a chance to repeat, and hand them out on the first day.

On class difficulty

A few students have suggested my classes are too hard for their advertised level:

- Steve was a really good teacher. He tried to make this class interesting, which is very hard. He sometimes spoke (taught) at a level way above an introductory course. Although I have worked hard and put in more effort than expected, I am unsure of my standing in this course.
- This was a good class, but some of the info seemed too difficult for a 100-level course.
- The course was overall interesting and it was obvious Steve knew what he was talking about and enjoyed it. The exams were too difficult though—final should not be cumulative. The papers were too structured and there wasn't much room for personal style.

This is a difficult issue for me. In general I have high expectations of my students, on the theory that this will encourage high expectations of themselves, and so turn self-fulfilling. But this can leave some students behind and struggling, and I am not always able to catch them. I don't feel I have resolved this difficult issue completely, although I am trying new strategies—such as *requiring* (rather than merely inviting) students who are doing poorly to come to office hours.

(As for my paper structure, I still think its advantages outweigh its disadvantages, despite the occasional grumble for a more permissive style.)

On grading

Naturally students often have concerns around grading policies. For example, the issue of *blind grading* has turned out surprisingly tricky. On the one hand, I feel strongly that personal bias can unfairly color the grading of papers and exams. (I discovered this empirically, while blind grading. Often, after seeing the name of the student I'd just graded, I would gasp inwardly: "I just gave *that* student *that* grade?!") On the other hand, I think these comments against blind grading are eminently reasonable:

- Initially I was not looking forward to this class, but Steve made everything very interesting. I was never bored in this class and time always went by fast. To improve: The blind paper grading kind of stunk. I would have liked to have gone to your office hours to discuss some aspects of both of my papers before they were due rather than after because then I would be writing with a firmer knowledge of the subject.
- I think the blind grading policy is actually in the student's disadvantage, because if they have questions regarding how to better their papers they are left with no one to go to. Having more resources available in this case definitely would have been helpful.

This is a difficult tradeoff. At the moment I allow some drafts on papers that are then graded "semi-blind", since I can often recognize drafts. But I am not yet fully satisfied with this resolution.

Students also have occasionally shown concern about the timeliness with which I returned grades. In my early days of teaching, this was probably the most common complaint.

- Teacher was very enthusiastic and willing to work with students. The only problem is he did not get graded work back to students in a timely fashion.
- You are a great teacher. You made Philosophy extremely interesting. Your biggest fault was not showing respect for your students by having the exams back in a timely fashion. That was very unprofessional and frustrating. Also, exams seemed to be graded very harshly for an introductory course. Your teaching skills, however, are great without questions.
- Grade papers faster!

It was clear how to improve in this arena, and I haven't had such comments for some time now. I set strict grading deadlines for myself that I would announce to my students ahead of time, and I started bribing myself to grade earlier by grading in good restaurants.

Another somewhat surprising request from students with respect to grading has been for more, and more frequent, assignments:

- The instructor was very available to help and kept class interactive and interesting. Put notes online and be more willing to consider answers that were not originally intended (i.e., be more open minded on grading of tests). I also wish there was some "halfway point" to see current grades on homework and that everyone had at least one graded because I still do not know what to expect on homework because I haven't been allowed to see a grade for any of my work.
- I did not approve of your homework policy. I understand your mission was to keep us motivated and not lower our effort, but having such a large portion of our final grade unknown is very uncomfortable. On the positive note, your enthusiasm for teaching increased my interest and attentiveness. I believe the teacher makes the class what it is, and thanks to you, I enjoyed this class. Let us know when your improv. shows are, I'd love to see them (if you still do it). Good luck and thanks.
- Overall, Petersen was an excellent instructor. The only thing I would change is the book that was used. Also, because there was a lot of readings, people easily can fall behind, I would suggest occasional pop quizzes to keep students up to date on the readings. No one likes pop quizzes, but they help us in the long run.

(Two of these comments are from a logic course in which I surprise-graded selected problem sets, and gave the other sets pass-fail marks.) These comments surprised me somewhat, but I can see how and why students would like more frequent feedback. But it is difficult to balance these three desiderata for graded assignments: frequent assignments, "large" assignments that require synthesis or further dedication to a particular topic, and a reasonable workload. One option I am considering is the use of online forums for discussion of class topics. These forums can be configured so that I can give "grades" on the posted comments.

Miscellany

There have been a few other teaching topics for which feedback has been helpful.

Philosophical bias. Some students have shown concern about my biases on loaded philosophical topics:

- I thought Steve did the job well. Near the end of the course arguments for problems became one-sided in so far as we only covered one aspect of a problem (for instance, we never heard a defense of Dualism). I assume this was due to the lack of time, but maybe next time not spend so much time on ethics.

- You do a great job as a teacher. This subject seems extremely hard, and you always come very well prepared. Thanks for the patience with our many questions and finding ways to answer them. I honestly think you're the best GSI I've ever had—thank you. As for learning names, if we don't make an effort to get to know you outside of class it is extremely hard to remember them all. So don't feel bad. In the second half, I felt unprepared to write a paper. I feel as though we only covered one side of the arguments. Some of us don't need to hear all the reasons why God can't exist. I'd like to read about why he could, because I've never seen a good reason for him. So maybe try to talk a bit more about both sides of the argument.
- The teaching of this course could be improved by teaching both sides of the topics we discuss more evenly.
- The comment I must make is that you should NEVER reveal your personal opinions regarding subject matter to the class. It compromises your position in making arguments either for or against. If the class really wants to know, you can tell them on the last day of class. Other than that, the course was a lot of fun and I felt you were a good instructor but a bit biased.

This is another tricky issue. On the one hand, there is strong pedagogical reason to push much harder for the more “skeptical” or unpopular views, such as against the existence of free will or of God. This makes it more likely students will actually question their beliefs, and that I think is the key service a philosophy class can provide.

In general, I agree with the last student comment, and I make an effort never to reveal my own views, or to reveal them only after the class is over. I do still have hesitations about this policy, however. For one thing, presenting all arguments equally can make students come to believe “there are no answers” in philosophy, or that “all philosophical views are equally good”. So, for example, I still provide more and stronger arguments against substance dualism than for it. Also, I am tempted to demonstrate strong philosophical views because it can remind students of the importance of the issues. Finally, I sometimes feel it is only “fair” they know where I stand when they choose topics on which to write their paper. (Of course I think I do not grade papers more harshly if they disagree with my views—but they might reasonably think otherwise.)

Student participation. I am still thinking about how to encourage student participation—whether to ask students to raise hands or encourage free discussion, and so on. A relevant comment:

- One thing to improve is to try and not call on the same kids all the time as to give the others a chance to talk. If I see the same hand up over and over I will be less likely to contribute because I know he'll get called on and probably say something better.

At the moment I ask students to raise hands, because I think this helps encourage students who are not as outspoken to participate. This does have a disadvantage in breaking up a natural flow to discussion, however. I've also looked for ways students can

participate other than class discussions—such as through online class forums, personal journals, and the like.

Also this isolated comment was helpful for me:

- Even when asking “does anyone have any questions,” it felt like Steve was a little rushed, the class in general felt rushed . . . a lot of information, and lecturing as opposed to discussion. However, I feel Steve is very knowledgeable and did a good job at making his students think and question their beliefs. [*Ellipsis in original.*]

This made me think about how quickly I sometimes cover material. I frequently pause for questions, but it didn’t occur to me that if I appear rushed, it is easy for students to think my pauses are insincere. I now pause for a much longer time—I find this simple trick builds trust that I am genuinely asking for questions from them.

Introductory logic. I am working on using innovative techniques for teaching introductory-level logic (including “informal logic”). This includes using David Velleman’s fantastic online interactive text, *Blogic*. I am dedicated to this text and its goals, but incorporating *Blogic* into the class has its own challenges. For one thing, I think it’s important to include informal logic in an introductory class, and *Blogic* does not cover it. The last time I taught it, I had students do the formal logic using the online text, and we covered informal logic in class (except for special logic labs). But one student wrote

- I found it extremely frustrating that homework & classtime were completely separate, independent lessons.

This is understandable. I have come up with a new plan to revamp the class again the next time I teach it, and I’m excited about it.

3.2 Complete Student Evaluations

Below I select a few indicative classes and provide the complete and unedited evaluations for those classes. This contrasts with the comments above, which are unedited but are (obviously) hand-selected to a purpose.

3.2.1 Kalamazoo College evaluation

When I arrived at Kalamazoo College in the fall of 2004, I taught an introductory course for 17 students. 16 of those filled out an evaluation at the end of the course. The evaluation involved several questions that requested written comments, and two numerical scores, on a scale from 1 to 5 (“poor” to “excellent”), in answer to the following two questions:

- **How do you rate the *instructor* of this course? Please respond in terms of his/her *teaching*, not in terms of your opinion of him/her as a person.** On this question 15 students marked “excellent” and one marked “very good” for an average of 4.94.

- **How do you rate this course?** On this question 10 marked “excellent” and six marked “very good”, for an average of 4.63.

Below are the complete written answers to the written questions provided. I copy the answers each time from their sheets simply in the order in which I received them. Not all students answered all questions however, so some may have fewer than 16 responses. I’ve organized the responses by question so that you may skip to those you feel most relevant.

1. COURSE GOALS. How well did the instructor establish and meet course goals?

- everything; did so by studying several arguments from famous philosophers.
- Great, very helpful and informative, was open to all questions and able to answer them. Very organized, and not confusing.
- He established class goals in the syllabus clearly.
- Seeing as his goal was to question (have us) everything, he succeeded wonderfully.
- He presented us at the beginning of the year with his goal to make us question everything. And he definitely did that. I was left wondering about many things, which was good for it made me see my values and beliefs in a different perspective.
- Steve did a good job of opening our minds to new possibilities!
- He acknowledged them daily & we did accomplish them daily. Goal make us question everything & I do because of him. Sounds sad but isn’t; I lost faith.¹
- Very well. He kept to the beginning outline, & he covered materials well.
- He followed his syllabus very well & he definitely confused us (his main goal)
- goals were well established & well met during the class
- very well laid out and met.
- Very well. Gave out a concept map and tied everything together over the course of the semester.²
- He did this wonderfully, we now question everything.
- Very well—confused us just as he said he would.
- very well
- Very well, he gave us a concept map and a list of what he wanted us to get out of the class. I think we learned what he expected.

¹In the context of evidentialism vs. Jamesian pragmatism, we had a special use of ‘faith’ as “belief without reason”; in this restricted sense I think it is good to lose faith.

²I am especially glad students appreciate the concept map, which I developed in response to an earlier comment by a student.

2. ORGANIZATION / PREPARATION. Please comment on the organization of the course and the use of class time.

- wonderful, many notes, discussion, and lecture. Out of class read material then he would sum it up in class.
- organization was good, class time would occasionally be distracted, but was later made up for.
- Though it is sometimes hard to catch up with the class discussion, thanks to the projector & computer, I understand most of the topics in classtime.³
- Well organized with the exception of the furniture arrangement near the beginning.⁴ Time spent relevant to the class.
- I really liked the projector and the notes being posted online. It allowed me to participate in discussions as opposed to just sitting and writing notes. I also liked the class discussions.
- The class was *very* well organized. He had a specific layout & stuck to it. He also had a good method of using a projector for notes—very helpful.
- Very organized. The online notes & whatnot.
- He did awesome. We kept on track & on subject as well as exploring ideas to the fullest
- There was a lot of off-topic discussion, but the openness to discussion helped to understand the topics.
- I love the projector! Class time discussions were thought-provoking & well-planned.
- Excellent, use of laptop & projector were awesome, allowed for more discussion time.
- All classtime was used effectively and the content was adequately explained and discussed.
- Very nice. The projector was AWESOME!
- Organization was great, I liked the notes on the web!
- Very prepared so the class always flowed well even if students weren't talking
- I think the class was very organized.

3. CHALLENGE. Please comment on the level of challenge of this course.

- 8 (scale 1 to 10). I found material very interesting but reading, papers, and essay exams extremely hard
- Perfect for the level of a student entering into the field of study.

³This was the first time I tried my “virtual blackboard” technique: I took notes on an HTML composer that was projected up on a screen, so that the notes could be posted later.

⁴Earlier I had asked students, in my absence, to brainstorm about what they liked and didn't like about the class; there the furniture issue came up. I agreed with them and so was able to fix it.

- Difficult. But he explained clearly.
 - It was challenging in that I had had no prior philosophy experience, and it was the deconstruction of most of my accepted beliefs.
 - The papers and tests were really challenging, and I also thought he was a challenging but fair grader
 - The course was challenging by nature—it is difficult to question one’s convictions & make arguments contrary to them.⁵
 - Very challenging to get what I wanted to say out in a written context. And at times difficult material to comprehend but that is why it’s interesting.
 - This was my hardest class this semester, but my favorite.⁶
 - It was mostly challenging to understand & remember the concepts. The papers were very general, but hard to write so much about. The readings were also harder than they needed to be.
 - Extremely challenging readings, tests, & essays.
 - Loved it. The class called into question many fundamental & moral beliefs, asking reflection on the part of the students.
 - I was always confused, therefore learning.
 - Challenging, but not overwhelming.
 - Very challenging, especially the text—sometimes frustrating.
 - challenging readings and thought
 - I found this class very challenging but it was a good challenge.
4. TEXTS. Please comment on the effectiveness of texts and other materials used in this course.⁷
- very complex reading
 - Great, explained in class well. Apparently the text has some gaps, but all was hit upon by the instructor. Wish we could have covered more.
 - Good. It’s hard but not long.
 - All texts were effective and necessary to participate in the class discussions.
 - The book was sometimes difficult to understand, but at least we discussed it.
 - The text was hard to read but useful upon Steve’s explanations.
 - Very effective. Key to learning various philosophers & whatnot. Informative, difficult, stimulating & interesting.

⁵I especially like this comment for its indication that I *did* manage get them to question their convictions some.

⁶I love this comment too! Just wanted to highlight it.

⁷My text for this course was Feinberg and Shafer-Landau (2005), with some supplements. (Yes, we used this “2005” book in the fall of 2004 . . .)

- Good. They portrayed each side to theories we discussed in class.
- The text was hard. I *never* understood the topic until it was talked about in class.
- Effective—since we discussed them all in class the next day, it was important to read them . . . [*Ellipsis in original.*]
- Great, interesting book.
- All texts were relevantly discussed and effective
- Good
- Effective but only after we went over it in class.
- very effective
- The text was difficult, but what do you expect!?

5. TECHNIQUE. Please comment on the effectiveness of the instructor's teaching techniques (depending on the course, these might include discussion, lecture, group work, projects, *etc.*)

- straw polls then would persuade class on topic⁸
- discussion / lecture was very effective; use of computer notes posted on the web allowed students to be more interactive in class⁹
- Great. He is good at making students confused and discuss active ?
- I have had few classes that the matter stuck with me so well, because all was applicable to my life.¹⁰
- As I wrote before, I liked our many class discussions and the online notes.
- *Great!* The discussions were open & active, he lectured in a way that made sense, and he explained things clearly & effectively.
- A very impressive mixture of lecture & discussion. Open forum to express emotions & thoughts.
- He lectured some & they were okay, but the class discussions made the most impact & we did those every day.
- Very effective, but it might be easier to have an outline of the notes before class so that we can add our own notes to the main ideas.¹¹
- Once again, the projector / notes online are amazing. I love the lectures & discussions.
- Straw polls are awesome.

⁸Sometimes I would take “straw polls”—with heads down for anonymity, students would indicate which way they were leaning on issues like free will; this gave me a sense of which view I should press harder (*viz.*, the minority one).

⁹This of course was a central intention behind my “virtual blackboard” technique (see footnote 3). I’m so pleased it seems to have worked.

¹⁰Hee hee! How often do you hear *that* about a philosophy class!

¹¹This is a suggestion I’m considering; I’m still torn about implementing it.

- Great discussions and clarification technique
 - Great
 - Very effective, if a student dazed off in class he can catch up from looking on the web.
 - nice use of technology in classroom
 - I love the projector and class notes. They were very helpful in understanding the texts and topics we were covering.
6. ASSIGNMENTS. Did the instructor explain assignments clearly? Did the instructor give you enough time to complete assignments? Were assignments effective in promoting learning? [Each of these questions offers options of “Never / Sometimes / Usually / Always” for an answer, and then there is a line “Comments:”.]
- Usually, Sometimes, Usually
 - Always, Always, Always; great, I wish I could have had more
 - Always, Always, Always
 - Always, Always, Always
 - Always, Always, Always
 - Always, Always, Always
 - Usually, Always, Always
 - Always, Usually, Always
 - Always, Always, Always
 - Always, Always, Always; Steve was my favorite prof¹²
 - Always, Always, Always
 - Always, Always, Always
 - Always, Always, Always
 - Usually, Usually, Always
 - Always, Always, Always
 - Always, Always, Always
 - Always, Usually, Usually
 - Always, Always, Always
7. INTERACTION. Did the instructor encourage your participation in class where appropriate? [No / Yes / NA] Was the instructor appropriately available outside of class for assistance? [No / Yes] [Room for comments.]
- Yes, Yes
 - Yes, Yes; any confusion could be made up in liberal office hours

¹²This question was at the bottom of the front page, so perhaps the student thought it was for “overall” comments.

-
- Yes, Yes
 - Yes, Yes
 - Yes, Yes
 - Yes, Yes
 - Yes, Yes; very available, very helpful & willing to provide assistance outside of class
 - Yes, Yes; thanks for always listening to my questions & elucidating other views to my [unreadable]
 - Yes, Yes; he was willing to help in any way that he could.
 - Yes, Yes
 - Yes, Yes
 - Yes, Yes
 - Yes, Yes
 - Yes, Yes
 - Yes, Yes
 - Yes, Yes
 - Yes, Yes
 - Yes, Yes
 - Yes, Yes; Steve Rules!
8. EVALUATION/GRADING. Did the instructor make evaluation criteria clear? Did the instructor evaluate assignments fairly? Did the instructor give useful feedback? Did the instructor give feedback regularly and promptly? [Each of these questions offers options of “Never / Sometimes / Usually / Always” for an answer, and then there is a line “Comments:”.]
- Usually, Sometimes, Sometimes, Usually
 - Usually, Always, Usually, Always; sometimes feedback would be confusing and would require more time to understand.
 - Always, Always, Always, Always
 - Always, Always, Always, Sometimes; having revisions back by the next paper would be very useful in the future
 - Always, Always, Always, Usually
 - Sometimes, Sometimes, Always, Always
 - Always, Usually, Always, Usually; exams were hard!
 - Always, Always, Always, Always
 - Usually, Always, Always, Usually
 - Always, Always, Always, Always
 - Usually, Always, Always, Always

- Usually, Always, Always, Always
 - Usually, Always, Always, Always
 - Always, Always, Always, Usually
 - Always, Always, Always, Usually
 - Usually, Always, Always, Always
9. LABORATORY/DISCUSSION SECTIONS. [skipped by all students as not applicable]
10. VALUE. Please comment on the value of this course to your academic or personal growth.
- very valuable, really learned to ? everything even if we really exist
 - Extremely. Everyone should begin college, and life for that matter, with this course.
 - This class helped me a lot in terms of discussing reading & basic philosophical ideas.
 - Extreme value—for both academic life and life in general.
 - I liked that it made me question my beliefs and ideas and speak openly about them
 - The course was valuable to me because it made me more open to ideas and thoughts.
 - He made you think through your problems, beliefs, & even your ethics. He helped me prepare very well for college.
 - I think it was extremely valuable—he makes you question everything!
 - I would consider this class *invaluable*.¹³
 - I value this course and its instructor greatly. I might go into this major because of this course.
 - I liked learning about philosophy even though it won't be my major. I may choose to take another though.
 - This was very valuable as it has encouraged me to do more thinking.
11. OVERALL RATINGS. [The numbers are summarized above.] Do you have any general comments or suggestions concerning this course?
- Makes me believe again in the academic process.
 - Steve is a great professor—very effective and congenial. Keep him on staff!
 - Steve is amazing! I learned a lot especially a lot on how essential it is to question everything!
 - Everyone should have Steve as a professor.

¹³A joke from our discussion of Kant and the will, I presume.

- You rock.
- Priceless, just like MasterCard
- Steve is the best professor I've had at Kalamazoo. He comes into class with a spark every day and takes on the problems we discuss in class as his own. Impressive.
- I really enjoyed this class!

3.2.2 University of Michigan evaluations

At the University of Michigan, evaluations are numerical except for an open-ended comment request. These comments are then typed up and handed to us. I was solely responsible for the instruction of these classes.

Again, I have added some comments in footnotes.

Philosophy of mind

I include this evaluation, and the following one, not because they are my *best*, but because they offer a sampling of evaluations of the more advanced classes I've taught. (My best evaluations tend to come from intro classes I've taught multiple times.) This was my first time to teach philosophy of mind. I think I pitched the difficulty a little too high, but the students responded well. These are from spring 2001.

- A clearer outline/roadmap of the theories would be helpful.
- He had a good knowledge of the course but the book was too complex to learn that much through it.
- Steve knew what he was talking about and was willing to let people participate and acknowledged others' opinions.
- Just FYI, I only read one and a half articles in the book, and received an A on my essay. Though, I did attend class everyday.
- Very friendly, easy to ask questions in class. Very solid knowledge of topic. Only difficulty was when there was confusion but I think that's necessary for the subject matter.
- The instructor was outstanding in almost all respects, especially in teaching such difficult material. His skills would be maximized if more time was allotted for the class.
- Steve is one of the best-prepared teachers that I've had at U. Mich. I've had a lot of teachers who knew only their specialty and been unable to explain concepts to students but Petersen was never at a loss. I do however think that the workload was too great for a 2-3-credit class.
- Stephen made a good adjustment after his evaluation to accommodate all student requests! I feel that Stephen can recognize student's difficulties or the difficulties of the class by posting web notes.

- The course was taught very well despite the difficulty of the material. I would like to have done more work in small groups, I tend to learn easier in that way.
- Steve, I feel I learned a lot and it was interesting but I really feel that there could have been a better way to teach it so that I could have understood it even better. More structure on concepts would have been better.
- I thought Steve did a great job. Any negative scores I have were due to my discovering I really wasn't greatly interested in philosophy, not due to his ability as a teacher. He made it more interesting than I would have found it otherwise.

Symbolic logic

This was a course in formal logic, including metalogic up through soundness and completeness proofs. It was my first time teaching the course. We used Bergmann et al. (1998) for our text. Again, though good, this is not chosen as among my best set of evaluations—just as indicative of my success teaching advanced logic. I taught this class in the spring of 2000.

- He was very knowledgeable of the subject matter. He taught it well and was able to quickly handle most any questions. He did seem to assume on the exams that students grasped the information a bit more than we seemed to though. Overall a good course even through it seemed a bit advanced and in depth for an intro course.
- Steve was an excellent teacher. He was open and appealed to many different types of learners. He would be a desirable professor because of his clear explanations.
- I really enjoyed the class and thought you taught it well. I think it helped a lot that you followed the structure of the book because we could use that as a foundation for what you taught during lecture. The assignments were a bit lengthy but understandable.
- Made good efforts to ensure that everyone was with him, but maybe over did it when asking too simple questions. At first couldn't tell if was an a!#h*%#\$, or if he was just rigid with rules. Good efforts make material seem interesting. Could have spent less time lecturing strictly by the book. Last day of class as very interesting as well as the rest of the stories.
- Steve was a solid instructor. He knew what he was talking about and he was willing to devote as much time as necessary outside of class helping those who struggled. The only problem was that he taught more towards the level of the advanced students rather than towards the average student. This may have had to do with the fact that it was a spring course and as such must move quickly.
- Maybe the course could be improved using a different textbook. Sometimes I couldn't understand some explanations in it, so I checked a different book I used in a lower level logic course. (The logic course, I don't remember the author.)

Introduction to philosophy section

These are comments from my earliest days in teaching, back in fall 1998. I was a section leader for Louis Loeb's Introduction to Philosophy lectures. I think it highlights my consistency and promise.

- Steve is an asset to the University of Michigan Philosophy Department. I happened to join this class relatively late in the semester and Steve was still able to teach me the material. I honestly believe that Steve Petersen would make an excellent "head" to a philosophy department some day. His brilliance has affected me permanently—this way by far my best class.
- Very good teacher, best teacher I've had since I've gotten to college, seriously. Very good discussion section possibly more interaction without lecturing, but it is often difficult to draw the line on how much one can discuss in a philosophy course.
- Steve was a great GSI. I strongly recommend him.
- I think that Steve was an amazing GSI—best out of all my GSIs I had this semester (1st semester of college). He provided good criticisms on my papers, never raised his voice when argued against, had patience and made class funny and interesting. He was a friendly guy and did a wonderful job because he explains well and knows what he's talking about. I hope he continues to teach because he does a great job at it.
- The class was graded very harshly. Also the first paper was graded much harder than subsequent assignments. Steve was a very good teacher overall—and is an asset to the university.
- The instructor was amazing! He thoroughly taught everything, used time well, was enthusiastic and I never left confused! He was always willing to help and overall, I think he was great.
- I thought that Steve was an excellent GSI. He made things interesting and explained things clearly in section.
- He was knowledgeable about the subject and was helpful. Maybe be a little more easy on grading.
- I enjoyed the class. Was good.
- The instruction of this class was excellent. The material is tough and Steve presented it in a clear manner. He did a great job teaching the difficult points. He is a good instructor. I wouldn't change the class.
- The discussion section was excellent. It made tough subject matter very clear and much easier to understand. The instructor taught very well, made class interesting, and was overall an excellent GSI.

- I think that Steve is the best teacher I have had since I have been here at U of M. He was enthusiastic, organized, and made even the most complex information perfectly clear and made sure that it is perfectly clear to everyone. He is outstanding!
- Steve Petersen was an excellent GSI. I think he did a great job of teaching this discussion. His review for the midterm helped me study very well. He made me very interested in the course.
- Steve Petersen was a very good GSI. He was very good in teaching concepts. To tell you the truth, I could not stay awake in lecture. I relied heavily on discussion to get a good understanding. Steve taught very well and was very interested in our needs. I would not want Steve to change anything about how he teaches because he does an excellent job.
- Steve Petersen was an excellent discussion leader that seemed enthused and very knowledgeable. It was a pleasure to be in his discussion section.
- Overall, a great class. Steve is a good teacher. I would recommend him to others.
- Steve was great, the best GSI I had. Made sections interesting/informative. No real ideas.¹⁴
- Good class—excellent GSI (Steve Petersen). Hard material—reading was tough—GSI explained it really well. Go Steve!
- Steve Petersen was one of the best GSIs I had this year. He's enthusiastic about what he teaches and he makes his students enthusiastic as well. He presents the information in entertaining, clear ways. (He frequently pointed out moral dilemmas in popular TV shows.) He was involved with his students, he got to know us well and he kept us well informed via email of any important class information.
- I felt that the instruction was very good in this section. Steve always did a thorough job of explaining material and making it interesting.
- Did a very good job. Thorough explanations + kept everyone's interest with his wit.
- I really enjoyed this class and I thought that you did an excellent job of teaching this difficult material. You also truly respected everyone, never making anyone feel inferior. Thanks. Quick side-note: Don't worry so much about offending people. We're supposed to be learning life lessons here and life's not that fair.

¹⁴Presumably, this is "no real ideas *to improve*", since as I recall the survey requests comments and notes for improvement.

Chapter 4

Sample Syllabi

In this section I present some sample syllabi from a variety of past classes. The originals are webpages; I have adapted them to the format of this portfolio without editing them for content. The originals are viewable from my website,

<http://stevepetersen.net/professional/>

and are also available upon request. On these pages, I've tried to indicate the "live" weblinks by underlining what would be the links.

4.1 Introduction to Philosophy

This syllabus is from my first semester at Kalamazoo College, though I had taught Introduction to Philosophy a few times before while at Michigan.

The class met in a somewhat irregular schedule—an hour and a half on Mondays and Wednesdays, and then 40 minutes on Fridays. The course schedule (at the end of the syllabus) is designed to reflect this irregularity in the times of meetings. The text was Feinberg and Shafer-Landau (2005), and the complete evaluations from this specific course are available in section 3.2.1.

Course description

Introduction to Philosophy meets Mondays and Wednesdays 10–11:35am and Fridays 10–10:40am in **the Humphrey House lounge**.

This course will cover some of the major problems of philosophy, with a special emphasis on their *motivation*—that is, on why we should worry about them in the first place. Some of the problems will include:

- Should you vote for the mayor who's soft on crime or hard on crime?
- If factors out of a person's control caused that person to do something wrong, can that person still *deserve* punishment?

- Are there ever cases when the wrongful act *isn't* caused by factors out of the person's control?
- What makes something right or wrong in the first place? Or is it "all relative"?
- Are people complex physical objects, subject to natural laws, or is there something about the human mind that science could never capture?
- Could a machine ever be intelligent the way humans are?
- What makes for a *good reason* to believe, or not believe, in the Abrahamic God?
- ... or a good reason to believe you aren't in the Matrix?
- ... or a good reason to believe an answer to one of these previous questions?

We'll read both classical and contemporary authors on these issues.

To many of you, the answers to these questions will initially seem obvious. And to many others of you, the *opposite* answers to these questions will initially seem equally obvious. Some of my primary goals in this course are

- to demonstrate that the answers to these questions are not at all obvious—that coming to a position on them requires serious, disciplined thought, and that
- how we approach and answer these questions can have serious implications for our everyday life.

Therefore the general arc of the course is to start with concrete, "real-life" problems; in trying to solve those, we will inevitably engage more and more abstract, *philosophical* issues.

Class goals

Let me expand a bit on the goals outlined in the section above. One way to organize the class goals is around three separate areas:

- **knowledge goals:** to learn the major philosophical debates we study, and the various positions on them, and the various objections to these positions.
- **skills goals:** to become adept at reason-giving, argumentation, appreciating opposed positions, and questioning assumptions.
- **values goals:** to value reasons, inquisitiveness, and open-mindedness; further, to systematize one's own values system in the light of ethical study.

To reach these goals, I plan both to *challenge* and to *support* you in equal measure. Do not be afraid to ask for either when you don't feel you're getting it.

Notice that the skills and values goals are at least as important as the knowledge goals, and this will be reflected in my grading. Achieving these goals is likely to require more interactive learning than you are used to. You can no longer afford simply to read and regurgitate—at least, not for a good grade. You must engage the material yourself. This requires taking more responsibility for your own learning than you might be used to. Remember, though: I'm here to help you take this responsibility.

Contact information

The best way to reach me is by email, which is just `petersen` (at `kzoo.edu`, of course). You can also try calling me in my office, 337-7040. *As a last resort*, and with a *good excuse*, you can call me at home: 978-6876. You had better not call before 9am or after 11pm. My **office hours** are Mondays 3–4p, and Wednesdays 3–5p. My office is upstairs in Humphrey House, then to the right, and then to the left (in the English department). You can also make appointments with me when my office hours don't work for you.

Text

We'll be using an anthology called *Reason & Responsibility*, edited by Joseph Feinberg and Russ Shafer-Landau, 12th Edition. You should be able to buy it at the campus bookstore. It's a new edition, so there are no used ones available (sorry!).

There will also be some additional class readings and other virtual handouts from me. In general it will be important to follow the development of the **class website**,

<http://kzoo.edu/~petersen/teaching/intro.html>

I will use this spot to post announcements, assignments, class notes, handouts, syllabus changes, *etc.*

Requirements and grading

Requirements

- 3p paper, 15%
- midterm exam, 15%
- 6p paper, 25%
- final exam, 30%
- section participation, 15%

You must do every assignment by the last day of exams in order to pass the class. The 3p paper will be an expository paper on an argument and an objection. You will be given a chance to rewrite this paper for a better grade. The 6p paper will include your own thoughts on an issue; you will not be able to rewrite it.

The general expectation for a class with almost 4 class-hours is that you will spend *about, and on average*, another 8 outside of class each week, and my syllabus is designed to reflect this. Though the readings tend to be short relative to other classes, the material is very dense, so that you'll need to spend a lot of time on each page. For the kind of understanding required in this class, you will almost surely have to read each assignment at least *twice*. (And yes, that is already adjusting for the fact that you're smart, a better reader than most of your high school peers, *etc.*!) In other words, I am giving you some break on the amount of material required, but with the expectation of greater *rigor* with the material assigned.

Grading

Since many students ask me about it, I'll tell you now how I determine grades: I give you a percentage score on all your assignments. For each major assignment I will give a rough idea of what the letter-grade curve would be ("about 83 and above was an A for this paper", *etc.*). In the end though, *only the numbers count* (so for example a high B+ will count more than a low B+ in the final reckoning). I normalize all these numbers using standard deviations. After all grades are in, I weigh them by the proportions above on my spreadsheet to get final normalized statistics. I then use the spreadsheet to order these numbers from highest to lowest, *without looking at the names* associated with the numbers. I then decide "natural" cutoff points for an A, an A-, a B+, *etc.*, guided in part by the statistics and in part by my gut. Finally, I look at the names associated with borderline cases (if any) and let my intuition guide me.

This is a deliberate mix of curved and absolute grading that I think is most fair. This way it is possible for almost everyone to get A's—or, for that matter, for almost everyone to get to get C's and D's—something impossible with precisely curved grading. Your grades thus don't depend entirely on the skill of your classmates. But, this way, I also don't have to pretend to know exactly the level of understanding required for each grade, as absolute grading presumes. Instead, if for example I teach at too high a level, I can still give better grades to those who did *relatively* well. *In practice*, the grades almost always curve around a B- mean.

I will grade the second paper and both exams *blindly*; I won't grade the first blindly because I want to give you an opportunity to bring in drafts. For papers I use a grading rubric that is somewhat open-ended and flexible (not to say "generic"); I will make it available by the time the first paper is assigned.

Late assignments

The philosophy department's policy on late assignments is this:

- Up to 24 hours late: one half-grade off (in my class, I approximate this by a loss of 3 points)
- 24 hours to two weeks late: one full grade off (in my class, a loss of 6 points)
- After two weeks: failure for the assignment

Grade changes

Of course you should feel comfortable asking me about your grades, or pointing out mistakes in my grading. I'm open to the idea that I might have made a mistake! But I've also found that this openness can be abused. So here is my policy on grade-change requests:

- Unless it's a straightforward mistake (on an exam, say) you must submit your explanation for exactly *why* you deserve a better grade in writing (email is fine). We might then make an appointment to discuss it if I think you have at least some good cause.

- If you ask me to reconsider a paper or exam essay, you accept the possibility that my closer evaluation might bring your grade *down* instead of up.
- The request must be within two weeks after the assignment was returned.
- Reasons that in the past have *not* been acceptable for changing a grade include:
 - “I have to get into a good law school.”
 - “I was really tired that day.”
 - “Other teachers / classes / departments / universities are easier.”

Class policies

There are some other things I should mention up-front.

Academic integrity

You should be familiar with Kalamazoo’s honor system and academic policies. If I have good evidence for any intentional academic dishonesty, including plagiarism or cheating on an exam, the result will be an automatic failure of the class for those involved, and a report to the Dean’s office. Remember that *all* websites or papers you used in your writing—directly or indirectly—must be cited. If you are unclear about what counts as plagiarism, please ask me or an academic advisor.

Accommodations

I try to accommodate all learning styles and disabilities. If you have a disability already documented with the college, I will be informed of it in writing, but you may want to discuss it with me anyway—if so, please do so soon, in the way that makes you most comfortable. If you have a disability that is *not* documented with the college, please *do* get it documented as soon as possible, so that I can extend accommodations—see the policies on disability.

Respect

As suggested in the honor system, it is a basic groundrule for this class that all students treat each other with *respect* for differences. That includes differences in ethnic or economic background, differences in opinions, differences in facility or difficulty with the material, differences in hesitancy or eagerness to participate, *etc.*

Class procedures

- All cellphones, pagers, and such should be turned off for class.
- You can call me “Steve”.

- At least initially, all students are expected to raise hands before speaking. Though a little formal, this helps ensure equal time for those less eager to speak out or interrupt.
- I may call on you randomly in class. I know some aren't so comfortable with that, but I think it's important for everybody. Please don't panic. If you're confused by the question or topic, just say so, and we'll work it out—chances are others will be grateful you said something.
- When you come to class, always have some *specific* question written down about the material assigned for the day. I may call on you to ask your question, and you should be prepared.
- Though I will encourage all of you to speak in class, there are several other ways to participate in class. For example, you can contribute to groups, ask questions for me or the class by email, or visit office hours.
- Relax, enjoy, and don't hesitate to ask questions.

Course schedule and assignments

Here is a tentative schedule of the material we will be covering in class. It is subject to change. In general your assignments are to read the material *before it's discussed in lecture*. This first reading is just to get the basic idea, and to know enough about it to ask about the things you don't understand. (This reading is very hard and you should not expect to understand it all the first time—if you *do* feel like you understood all of it, I can almost guarantee that you actually understood next to none of it!) You should then definitely read the material *after* it's discussed in lecture as well—you will find that you get much more out of it the second time around. Also, notice that the readings for some days are quite heavy, while the readings for other days are light to nonexistent. I suggest you plan ahead for these differences.

Readings are in *Reason & Responsibility* unless otherwise noted. Remember that though the class topics may not always follow this schedule *exactly*, still the readings will remain assigned for these days unless I explicitly say otherwise.

Part I: Introduction, and ethics

Date	Topic	Readings
9/27	Introduction	(none)
9/29	Crime and punishment, reservations about ethics	Handouts (Darrow, Lewis)
10/1	Reservations about ethics <i>Drop / add deadline</i>	Midgley, 522-525
10/4	Consequentialism	Mill, 594–607
10/6	Deontology	Kant, 579–594
10/8	Deontology	(none)
10/11	Ethics of famine <i>3p paper assigned</i>	Singer, 631-639
10/13	Ethics of justice	Rawls, 554–564
10/15	The Aristotelian alternative	Aristotle, 525–541
10/18	The Aristotelian alternative <i>3p paper draft / outline due by 5pm</i> <i>(not required)</i>	(none)

Part II: Free will, determinism, and moral responsibility

Date	Topic	Readings
10/20	Moral responsibility 3p paper due by 5pm	Nagel, 449–457
10/22	Hard determinism	Holbach, 392–397
10/25	Hard determinism, compatibilism	Stace, 413–418
10/27	Compatibilism	Ayer, 408–413
10/29	Agency	(none)
11/1	Libertarianism <i>3p paper rewrite due by 5pm</i> <i>(not required)</i>	Chisholm, 418–425

Part III: Mind, body, and artificial intelligence

Date	Topic	Readings
11/3	Mind and body	Swinburne, 263–267 Churchland “reductive materialism”, 286–277
11/5	Midterm on parts I & II	
11/8	Mind and body	Churchland “functionalism”, 292–296
11/10	Artificial intelligence	Searle, 305–317
11/12	Artificial intelligence	Turing, 296–305

Part IV: Knowledge and God

Date	Topic	Readings
11/15	Skepticism <i>6p paper assigned</i>	Descartes I, 147–149; Moore, 196–199
11/17	Skepticism	Sextus Empiricus, 135–139
11/19	God intro	(none)
11/22	God and the problem of evil	Johnson, 85–89
11/24	Ethics of belief 6p paper due by 5pm	Clifford, 97–101
11/26	<i>Thanksgiving break (no class)</i>	
11/29	Ethics of belief	James, 101–109
12/1	Ethics of belief	Kitcher, 247–256
12/3	Wrapup	Blackburn, 118–123

The **final** is as according to the registrar, on Thursday December 9th from 8–11am.

4.2 Epistemology

I have not taught a pure epistemology class before, although I have taught a metaphysics and epistemology class (“Knowledge and Reality”) for the University of Michigan, and I will teach “Theories of Knowledge” for Kalamazoo College in Winter 2006. Below is the syllabus I initially designed for that Kalamazoo class, when I wasn’t clear that it is intended to be an especially accessible, 100-level class. I now think the syllabus below is too challenging for that level, so it’s best seen as a hypothetical syllabus for an introductory epistemology class geared toward a more advanced level of student. (I plan now to use the anthology Crumley II (1999) instead.)

Course description

Theories of Knowledge meets on Tuesdays and Thursdays 12:40–2:30p in [some room].

This course will cover some of the major problems of the theory of knowledge, such as:

- How do we know the things we know?
- Do we know we’re not dreaming, or in *The Matrix*?
- What does it mean to “know” something, anyway?
- More generally, what are *good reasons* to believe something?
- How can we *tell* whether our beliefs are good or not?

A lot of your time here in college is dedicated to learning new things, and improving your set of beliefs. This course questions the very presumptions of that enterprise. We will read contemporary authors on these issues; classes will be a mixture of lecture and active discussion.

Class goals

Let me expand a bit on the goals outlined in the section above. One way to organize the class goals is around three separate areas:

- **knowledge goals:** to learn the major philosophical debates we study, and the various positions on them, and the various objections to these positions.
- **skills goals:** to become adept at reason-giving, argumentation, and appreciating opposed positions; to get in the habit of critically evaluating assumptions about good thinking.
- **values goals:** to value reasons, inquisitiveness, and open-mindedness; to value the leverage such abstract reasoning gives us.

To reach these goals, I plan both to **challenge** and to **support** you in equal measure. Do not be afraid to ask for either when you don't feel you're getting it.

Notice that the skills and values goals are at least as important as the knowledge goals, and this will be reflected in my grading. Achieving these goals is likely to require more interactive learning than you are used to. You can no longer afford simply to read and regurgitate—at least, not for a good grade. You must engage the material yourself. This requires taking more responsibility for your own learning than you might be used to. Remember, though: I'm here to help you take this responsibility.

Contact information

The best way to reach me is by email, which is just `petersen` (at `kzoo.edu`, of course). You can also try calling me in my office, 337-7040, but I rarely check my voicemail. *As a last resort*, and with a *good excuse*, you can call me at home: 978-6876. You had better not call before 9am or after 11pm. My **office hours** are [some hours]. My office is 212 Humphrey House (in the English department). You can also make appointments with me when my office hours don't work for you.

Text

We'll be using an anthology called *Epistemology: An Anthology*, edited by Sosa and Kim. You should be able to buy it at the campus bookstore, or at `half.com` for example.

There may also be some additional class readings and other “virtual handouts” from me. In general it will be important to follow the development of the **class website** on moodle:

<http://www.kzoo.edu/moodle>

I will use this spot to post announcements, assignments, class notes, handouts, syllabus changes, *etc.*

Requirements and grading

Requirements

- 3p paper, 15%
- midterm exam, 15%
- 6p paper, 25%
- final exam, 35%
- section participation, 10%

You must do every assignment by the last day of exams in order to pass the class. The 3p paper will be an expository paper on an argument and an objection. You will be given a chance to rewrite this paper for a better grade. The 6p paper will include your own thoughts on an issue; you will not be able to rewrite it. *With special permission from me in advance*, upperclass students can write one 10p paper instead of the two shorter papers. If you write the 10p paper, a draft or outline will be due when the 3p paper is due.

The general expectation for a class with almost 4 class-hours is that you will spend *about, and on average*, another 8 outside of class each week, and my syllabus is designed to reflect this. Though the readings tend to be short relative to other classes, the material is very dense, so that you'll need to spend a lot of time on each page. For the kind of understanding required in this class, you will almost surely have to read each assignment at least *twice*. (And yes, that is already adjusting for the fact that you're smart!) In other words, I am giving you some break on the amount of material required, but with the expectation of greater *rigor* with the material assigned.

Grading

Since many students ask me about it, I'll tell you now how I determine grades: I give you a percentage score on all your assignments. For each major assignment I will give a rough idea of what the letter-grade curve would be ("about 83 and above was an A for this paper", *etc.*). In the end though, *only the numbers count* (so for example a high B+ will count more than a low B+ in the final reckoning). I normalize all these numbers using standard deviations. After all grades are in, I weigh them by the proportions above on my spreadsheet to get final normalized statistics. I then use the spreadsheet to order these numbers from highest to lowest, *without looking at the names* associated with the numbers. I then decide "natural" cutoff points for an A, an A-, a B+, *etc.*, guided in part by the statistics and in part by my gut. Finally, I look at the names associated with borderline cases (if any) and let my intuition guide me.

This is a deliberate mix of curved and absolute grading that I think is most fair. This way it is possible for almost everyone to get A's—or, for that matter, for almost everyone to get to get C's and D's—something impossible with precisely curved grading. Your grades thus don't depend entirely on the skill of your classmates. But, this way, I also don't have to pretend to know exactly the level of understanding required

for each grade, as absolute grading presumes. Instead, if for example I teach at too high a level, I can still give better grades to those who did *relatively* well. *In practice*, the grades almost always curve around a B- mean.

I will grade the second paper and both exams *blindly*; I won't grade the first blindly because I want to give you an opportunity to bring in drafts. For papers I use a grading rubric that is somewhat open-ended and flexible (not to say "generic"); I will make it available by the time the first paper is assigned.

Late assignments

The philosophy department's policy on late assignments is this:

- Up to 24 hours late: one half-grade off (in my class, I approximate this by a loss of 3 points)
- 24 hours to two weeks late: one full grade off (in my class, a loss of 6 points)
- After two weeks: failure for the assignment

Grade changes

Of course you should feel comfortable asking me about your grades, or pointing out mistakes in my grading. I'm open to the idea that I might have made a mistake! But I've also found that this openness can be abused. So here is my policy on grade-change requests:

- Unless it's a straightforward mistake (on an exam, say) you must submit your explanation for exactly *why* you deserve a better grade in writing (email is fine). We might then make an appointment to discuss it if I think you have at least some good cause.
- If you ask me to reconsider a paper or exam essay, you accept the possibility that my closer evaluation might bring your grade *down* instead of up.
- The request must be within two weeks after the assignment was returned.
- Reasons that in the past have *not* been acceptable for changing a grade include:
 - "I have to get into a good law school."
 - "I was really tired that day."
 - "Other teachers / classes / departments / universities are easier."

Class policies

[This section is nearly identical to that of 4.1.]

Course schedule and assignments

Here is a tentative schedule of the material we will be covering in class. It is subject to change. In general your assignments are to read the material *before it's discussed in lecture*. This first reading is just to get the basic idea, and to know enough about it to ask about the things you don't understand. (This reading is very hard and you should not expect to understand it all the first time—if you *do* feel like you understood all of it, I can almost guarantee that you actually understood next to none of it!) You should then definitely read the material *after* it's discussed in lecture as well—you will find that you get much more out of it the second time around. Also, notice that the readings for some days are quite heavy, while the readings for other days are light to nonexistent. I suggest you plan ahead for these differences.

Readings are in *Epistemology: An Anthology* unless otherwise noted. Remember that though the class topics may not always follow this schedule *exactly*, still the readings will remain assigned for these days unless I explicitly say otherwise.

Part 1: Knowledge and skepticism

Week	Date	Readings
week 1	1/3	(none)
	1/5	1 Stroud (first half, 9p)
week 2	1/10	1 Stroud (second half, 9p)
	1/12	2 Moore, 3 Moore (5p)
week 3	1/17	5 Strawson (9p) <i>3p paper assigned</i>
	1/19	6 Unger (10p)
week 4	1/24	7 Gettier, 8 Klein (10p)
	1/26	9 Harman (12p) 3p paper due
week 5	1/31	10 Nozick (half, 12p)
	2/2	10 Nozick (half, 12p)

Part 2: Justification

Week	Date	Readings
week 6	2/7	16 Feldman and Conee (12p)
	2/9	Midterm (1 hour test, then discussion)
week 7	2/14	17 Foley (10p)
	2/16	21 BonJour (13p) <i>6p paper assigned</i>
week 8	2/21	24 Kim (13p)
	2/23	27 Goldman (14p)
week 9	2/28	31 Fumerton (12p) 6p paper due
	3/2	34 Goldman (7p)
week 10	3/7	35 Plantinga (12p)
	3/9	36 Zagzebski (11p)

The **final** is as according to the registrar, on [the registrar's date].

4.3 Philosophy of Mind

This is the syllabus from the most recent time I taught this course, in the spring of 2002, at the University of Michigan. Called “Mind, Matter, and Machines”, it is intended as an upper-level undergraduate introduction to the philosophy of mind. It was taught in Michigan’s spring term, which means it’s “doubletime”—twice as many classhours per week in half the number of weeks. The text was Crumley II (2000).

The complete student evaluations for this course are available in section 3.2.2.

Course description

Philosophy 340 meets **TTh 1-3p in G115 Angell Hall**. It is designed as an introduction to the challenging and intriguing topic more generally called “philosophy of mind”. As stated in the course guide, it is

A study of some central questions about the human mind and its place in nature. Topics will include: theories of the relation between mental states and physical states, artificial intelligence, the nature of mental representation, and the place of consciousness in a physicalistic worldview.

A brief word about **why this is taught in the philosophy department**. You may feel that the relation between our brains and our mental states is a purely *scientific* matter. Well, it’s certainly true that there are important scientific questions that need to be settled. For example: what exactly happens in the brain when someone experiences pain, or feels happy, or forms a belief? But it seems that in order to answer that question, we need to know some more basic things: what *is* a belief, for example? What would it take for a computer, or a dolphin, or a Martian to count as having one? If we don’t know what they are, we’ll never recognize one in the brain. And in fact many people think that *in principle* we will never be able to say that some activity in the brain *is* a belief or a feeling. At least until they’re better sorted out, these “conceptual” issues remain in the realm of philosophy.

Contact information

The best way to reach me is by email, spetey@umich.edu. Second choice would be for you to call the department at 764-6285. *As a last resort*, and with a *good excuse*, you can call me at home: 669-6241. You had better not call before 10am or after 11pm. My **office hours** are on Wednesday from 2p–3:30p. During office hours you can find me either in the Tanner Library (1171 Angell Hall), or else in the philosophy GSI “holding pen” (1156 Angell Hall). They’re both in a hallway on the first floor of Angell; the hallway is to your right after you come in from the front steps. You can also make appointments with me if my office hours don’t work for you.

The *grader* for this course is **Remy Debes**, you can reach him at rdebes@umich.edu.

Text

We'll be using the anthology *Problems in Mind*, edited by Jack S. Crumley II. You should be able to buy it at Shaman Drum. There's also a recommended text, *Matter and Consciousness* (Revised Edition) by Paul M. Churchland.

There will also be some “[virtual handouts](#)” from me. In general it will be important to follow the development of the **class website**,

<http://www.umich.edu/~spetey/teaching/340.html>

I will use this spot and / or the class email list to post announcements, syllabus changes, *etc.*

Requirements and Grading

Requirements

- Two 5-page papers, 25% each.
- One final exam, 40%.
- Class participation, 10%.

If you are interested you may petition to write one 10-page paper instead of two 5-page papers (with the understanding that your petition may be refused).

I've also figured that you should spend, for a two-credit summer class, an average of 12 hours a week on the course. (This is based on a 40-hour week for a “regular courseload”.) Four of the 12 will be in class. The other eight will be taken up with reading and homework. Don't forget, this is a spring-term class: everything is *double-time*! You won't have *so* many pages to read for each class, but the material is dense enough that it's likely you'll need to spend a lot of time on each page.

Grading

Since many students ask me about it, I'll tell you now how I determine grades: I give you a percentage score on all your assignments. For each major assignment I will give a rough idea of what the letter-grade curve would be (“about 83 and above was an A for this paper”, *etc.*). In the end though, *only the numbers count* (so for example a high B+ will count more than a low B+ in the final reckoning). After all grades are in, I weigh them by the proportions above on my spreadsheet to get final percentages. I then use the spreadsheet to order these numbers from highest to lowest, *without looking at the names* associated with the numbers. I then decide “natural” cutoff points for an A, an A-, a B+, *etc.*, guided in part by statistics such as the mean and standard deviation, and in part by my gut. Finally, I look at the names associated with borderline cases (if any) and let my intuition guide me.

This is a deliberate mix of curved and absolute grading that I think is most fair. This way it is possible for almost everyone to get A's—or, for that matter, for almost everyone to get to get C's and D's—something impossible with precisely curved grading. Your grades thus don't depend entirely on the skill of your classmates. But, this

way, I also don't have to pretend to know exactly the level of understanding required for each grade, as absolute grading presumes. Instead, if for example I teach at too high a level, I can still give better grades to those who did *relatively* well.

I grade all papers and exams *blindly*.

Disclaimers and Notes

There are some other things I should mention up-front.

Grading Revisions

Of course you should feel comfortable asking me about your grades, or pointing out mistakes in my grading. I'm open to the idea that I might have made a mistake! But I've also found that this policy can be abused. So here are my restrictions for grade-change requests:

- Unless it's a straightforward mistake on an exam, you must submit your explanation for exactly *why* you deserve a better grade in writing (email is fine). We might then make an appointment to discuss it.
- If you ask me to reconsider a paper or exam essay, you accept that my closer evaluation might bring your grade *down* instead of up!
- The request must be within two weeks after the assignment was returned.
- Reasons that are *not* acceptable for grade change include:
 - “I have to get into a good law school.”
 - “I was really tired that day.”
 - “Other teachers / classes / departments / universities are easier.”

Plagiarism and Cheating

If I have good evidence for any cheating or plagiarism, the result will be an automatic failure of the class for those involved, and a report to the Dean's office. Remember that *all* websites or papers you used in your writing—directly or indirectly—must be cited. If you are unclear about what counts as plagiarism, please ask me.

Accommodations

I try to accommodate all learning styles and (dis)abilities. If you have any such issue to discuss with me, please do so soon, in the way that makes you most comfortable.

Course schedule

Here is a tentative schedule of the material we will be covering in class. In general your assignments are to read the material *before it's discussed in lecture*. I recommend you read the material *after* it's discussed in lecture then, too (they are likely to be much clearer the second time through, with help from the class discussion).

Part I: The nature of mind

Date	Topic	Readings in PiM
April 30	Introduction	(none)
May 2	Dualism	1–3 (23 pages)
May 7	Behaviorism	5, 6 (22 pages)
May 9	Type Identity Theory	7–9 (21 pages)
May 14	Functionalism (part I)	10, 12 (about 20 pages)
May 16	Functionalism (part II)	11, 14 (about 23 pages)
May 21	Eliminative Materialism	16 (14 pages)

Part II: Mental content

Date	Topic	Readings in PiM
May 23	The “language of thought” & externalism	20, 22 (23 pages)
May 28	Causal & covariance theories	26, 27 (22 pages)
	<i>First paper due</i>	
May 30	Conceptual role theories & AI	29, 30, 32 (27 pages)
June 4	Teleological theories	33–35 (24 pages)

Part III: Consciousness, qualia, and subjectivity

Date	Topic	Readings in PiM
June 6	Part I: Bats & Mary	44, 46 (17 pages)
June 11	Part II: Response & rebuttal	47, 48 (17 pages)
June 13	Part III: Zombies & prospects	50, 51 (25 pages)
June 17	<i>Second paper due</i>	

The final is on **Friday June 21st 1:30–3:30p.**

4.4 Philosophy of Artificial Intelligence

I am teaching this class now, fall 2005, for the first time. Normally I prefer minimizing expenses for students (and maximizing convenience) by picking one good standard textbook. I found for this course that wasn't so easy to do, though, and I ended up requiring three texts and recommending another. For texts I assigned a combination of Clark (2001), Haugeland (1997), and Lycan (1999). The classic Churchland (1988) is recommended reading.

I would say it is going quite well so far.

Course description

Philosophy of Artificial Intelligence meets Tuesdays and Thursdays from 12:40–2:30pm at Olds/Upton 408.

This course will cover some of the major problems of the philosophy of artificial intelligence. The central question we examine is this: *what would it take to create an artificial intelligence?* This question has many interesting components:

- What is *intelligence*, anyway?
- What kind of materials would be required? Is it *impossible* to make an intelligent agent out of metal?
- What kind of architecture and computational structure would an artificially intelligent creature require?
- What would be required for an artificial creature literally to *believe* something, or *desire* something?
- What would be required for an artificial creature literally to *experience* sensations like pain or the taste of chocolate?
- What would be required for an artificial creature literally to possess *emotions*?

These questions are designed to question and clarify the fundamental assumptions and goals of that glorious but messy new field, cognitive science. We will read mostly contemporary authors on these issues; classes will be a mixture of lecture and active discussion.

Class goals

Let me expand a bit on the goals outlined in the section above. One way to organize the class goals is around three separate areas:

- **knowledge goals:** to learn the major philosophical debates we study, and the various positions on them, and the various objections to these positions.
- **skills goals:** to become adept at reason-giving, argumentation, and appreciating opposed positions; to get in the habit of critically evaluating the assumptions of cognitive science.
- **values goals:** to value reasons, inquisitiveness, and open-mindedness; to value the enterprise of cognitive science.

To reach these goals, I plan both to **challenge** and to **support** you in equal measure. Do not be afraid to ask for either when you don't feel you're getting it.

Notice that the skills and values goals are at least as important as the knowledge goals, and this will be reflected in my grading. Achieving these goals is likely to require more interactive learning than you are used to. You can no longer afford simply to read and regurgitate—at least, not for a good grade. You must engage the material yourself. This requires taking more responsibility for your own learning than you might be used to. Remember, though: I'm here to help you take this responsibility.

Contact information

The best way to reach me is by email, which is just `petersen` (at `kzoo.edu`, of course). With a *good excuse*, you can call me at home: 978-6876. You had better not call before 9am or after 11pm. My **office hours** are Wednesday and Thursday 3–5p, at 201 Humphrey House. You can also make appointments with me when my office hours don't work for you.

Text

We'll be using a few books for this class.

- Andy Clark's introductory text, *Mindware*.
- The *Mind and Cognition* anthology, edited by William Lycan.
- The *Mind Design II* anthology, edited by John Haugeland.
- Paul Churchland's classic and entertaining *Matter and Consciousness* (2nd edition) is *recommended* reading.

You should be able to buy these at the campus bookstore, or used at `half.com` for example.

There will also be some additional class readings and other “virtual handouts” from me. In general it will be important to follow the development of the **class website**, which is accessible from moodle:

`http://www.kzoo.edu/moodle/`

I will use this spot to post announcements, assignments, class notes, handouts, syllabus changes, *etc.*

Requirements and grading

Requirements

- midterm exam, 20%
- 10p paper, 30%
- final exam, 35%
- participation, 10%
- written questions on moodle, 5%

You must do every assignment by the last day of exams in order to pass the class.

The general expectation for a class with almost 4 class-hours is that you will spend *about, and on average*, another 8 outside of class each week, and my syllabus is designed to reflect this. Though the readings might be short relative to other classes, the material is very dense, so that you'll need to spend a lot of time on each page. For the

kind of understanding required in this class, you will almost surely have to read each assignment at least *twice*. (And yes, that is already adjusting for the fact that you're smart!) In other words, I am giving you some break on the amount of material required, but with the expectation of greater *rigor* with the material assigned.

Grading

Since many students ask me about it, I'll tell you now how I determine grades: I give you a percentage score on all your assignments. For each major assignment I will give a rough idea of what the letter-grade curve would be ("about 83 and above was an A for this paper", *etc.*). In the end though, *only the numbers count* (so for example a high B+ will count more than a low B+ in the final reckoning). I normalize all these numbers using standard deviations. After all grades are in, I weigh them by the proportions above on my spreadsheet to get final normalized statistics. I then use the spreadsheet to order these numbers from highest to lowest, *without looking at the names* associated with the numbers. I then decide "natural" cutoff points for an A, an A-, a B+, *etc.*, guided in part by the statistics and in part by my gut. Finally, I look at the names associated with borderline cases (if any) and let my intuition guide me.

This is a deliberate mix of curved and absolute grading that I think is most fair. This way it is possible for almost everyone to get A's—or, for that matter, for almost everyone to get C's and D's—something impossible with precisely curved grading. Your grades thus don't depend entirely on the skill of your classmates. But, this way, I also don't have to pretend to know exactly the level of understanding required for each grade, as absolute grading presumes. Instead, if for example I teach at too high a level, I can still give better grades to those who did *relatively* well. *In practice*, the grades almost always curve around a B- mean.

I grade papers and exams *blindly*.

Late assignments

The philosophy department's policy on late assignments is this:

- Up to 24 hours late: one half-grade off
- 24 hours to two weeks late: one full grade off
- After two weeks: failure for the assignment

Grade changes

Of course you should feel comfortable asking me about your grades, or pointing out mistakes in my grading. I'm open to the idea that I might have made a mistake! But I've also found that this openness can be abused. So here is my policy on grade-change requests:

- Unless it's a straightforward mistake (on an exam, say) you must submit your explanation for exactly *why* you deserve a better grade in writing (email is fine).

We might then make an appointment to discuss it if I think you have at least some good cause.

- If you ask me to reconsider a paper or exam essay, you accept the possibility that my closer evaluation might bring your grade *down* instead of up.
- The request must be within two weeks after the assignment was returned.
- Reasons that in the past have *not* been acceptable for changing a grade include:
 - “I have to get into a good law school.”
 - “I was really tired that day.”
 - “Other teachers / classes / departments / universities are easier.”

Class policies

[This section is nearly identical to that of 4.1.]

Course schedule and assignments

Here is a tentative schedule of the material we will be covering in class. It is subject to change. In general your assignments are to read the material *before it's discussed in lecture*. This first reading is just to get the basic idea, and to know enough about it to ask about the things you don't understand. (This reading is very hard and you should not expect to understand it all the first time—if you *do* feel like you understood all of it, I can almost guarantee that you actually understood next to none of it!) You should then definitely read the material *after* it's discussed in lecture as well—you will find that you get much more out of it the second time around. Also, notice that the readings for some days are quite heavy, while the readings for other days are light to nonexistent. I put the total number of approximate pages in parentheses at the end of each assignment. I suggest you plan ahead for these differences.

Abbreviations: “WL” for William Lycan's *Mind and Cognition*, “JH” for John Haugeland's *Mind Design II*, “AC” for Andy Clark's *Mindware*, and finally “PC” for Paul Churchland's *Matter and Consciousness*.

Remember that though the class topics may not always follow this schedule *exactly*, still the readings will remain assigned for these days unless I explicitly say otherwise.¹

¹Note: the original HTML for this table also included the week on the far left-hand side; I've omitted it here for space reasons.

Date	Topic	Readings
9/20	Introduction	(none)
9/21	<i>Movie screening 8pm: AI</i> (location to be determined)	
9/22	Introduction	AC: Intro and Ch1 Handout: van Gelder (30p)
9/27	Functionalism	AC: Appendix I WL: Lycan p49 and Sober p63 (30p) <i>recommended:</i> PC 7-51, esp. 36-43
9/29	Old-fashioned AI and the Turing test	AC: Ch2 JH: Turing (43p) <i>recommended:</i> PC 99-122, esp. 106-122
10/4	The very possibility of AI	JH: Searle, Dennett (50p)
10/6	Architecture issues intro	AC: Ch3, Ch4 (43p)
10/11	Connectionism	JH: Churchland (42p) <i>recommended:</i> PC 123-165, esp. 146-165
10/13	Connectionism and the language of thought	WL: Bechtel p153, Fodor p199 (30p)
10/18	The language of thought	JH: Clark WL: Churchlands p212 (27p)
10/20	Midterm exam through 10/13 (1hr), and chat (1hr)	
10/25	Embodied cognition	AC: Ch5 JH: Brooks (45p)
10/27	Dynamics	AC: Ch6, Ch7 (37p)
11/1	Dynamics	JH: van Gelder (30p)
11/3	Mental content	WL: Millikan p221, Fodor p230 (30p)
11/8	Qualia	WL: Block p435, Jackson p440 (12p)
11/10	Qualia: responses	WL: Lewis p447, Harman p474 (24p)
11/15	Emotions	WL: Nash p503, Griffiths p516 (27p)
11/17	<i>Catchup session—no assignment</i> Paper due 5pm	
11/22	Guest speaker Eric Lormand!	<i>to be determined</i>
11/24	<i>Thanksgiving holiday</i>	

The **final exam** is, alas, as scheduled by the registrar: 8–11am on Thursday December 1st. (Ugh!)

4.5 Philosophy of Science

I taught this class for the first time at Kalamazoo College, in the spring term of 2005. As in the case of the introductory class (see section 4.1), this class met for 1.5 hours on Monday and Wednesday, but only for 40 minutes on Friday; my schedule adjusts for this. The text was Klemke et al. (1998).

Course description

Philosophy of Science meets Mondays and Wednesdays 10-11:35am and Fridays 10–10:40am in **Olds / Upton 103**.

This course will cover some of the major problems of the philosophy of science, such as:

- How do we determine what kind of investigation counts as *scientific*? (Why does

astronomy count as a science, but astrology doesn't? Does creationism count as a science? How about evolutionary biology? *Why?*)

- What is an *explanation*? What is a scientific *law*? For example, what does it mean to say the law of gravity *explains* the motion of the planets?
- How do we choose between two theories that fit the data equally well? Is there, for example, a good reason to prefer the *simpler* one? What is it for a theory to “fit data”, anyway?
- Can we set aside our aims and values when we try to describe the world scientifically, or are they inextricably mixed into our conclusions? In what sense is science “objective”?
- Given that all our past scientific theories have been wrong, do we have any reason to think the ones we have now are even close to right?
- What is it for a theory (like Einstein's) to be “closer” to the truth than another (like Newton's)? Is truth actually the goal of scientific practice, in the first place? Or does science “merely” aim for pragmatic efficacy in achieving our other goals?

These questions are designed to question the fundamental assumptions of science and scientific practice. We will read mostly contemporary authors on these issues; classes will be a mixture of lecture and active discussion.

Class goals

Let me expand a bit on the goals outlined in the section above. One way to organize the class goals is around three separate areas:

- **knowledge goals:** to learn the major philosophical debates we study, and the various positions on them, and the various objections to these positions.
- **skills goals:** to become adept at reason-giving, argumentation, and appreciating opposed positions; to get in the habit of critically evaluating the assumptions of science.
- **values goals:** to value reasons, inquisitiveness, and open-mindedness; to value scientific practice as a paragon of empirical reasoning.

To reach these goals, I plan both to **challenge** and to **support** you in equal measure. Do not be afraid to ask for either when you don't feel you're getting it.

Notice that the skills and values goals are at least as important as the knowledge goals, and this will be reflected in my grading. Achieving these goals is likely to require more interactive learning than you are used to. You can no longer afford simply to read and regurgitate—at least, not for a good grade. You must engage the material yourself. This requires taking more responsibility for your own learning than you might be used to. Remember, though: I'm here to help you take this responsibility.

Contact information

The best way to reach me is by email, which is just `petersen` (at `kzoo.edu`, of course). You can also try calling me in my office, 337-7040, but I rarely check my voicemail. *As a last resort*, and with a *good excuse*, you can call me at home: 978-6876. You had better not call before 9am or after 11pm. My **office hours** are Mondays 3–4p, and Wednesdays 3–5p. My office is 212 Humphrey House (in the English department). You can also make appointments with me when my office hours don't work for you.

Text

We'll be using an anthology called *Introductory Readings in the Philosophy of Science*, edited by Klemke, Hollinger, and Rudge (with Kline), 3rd edition. You should be able to buy it at the campus bookstore, or at `half.com` for example.

There will also be some additional class readings and other “virtual handouts” from me. In general it will be important to follow the development of the **class website**,

`http://kzoo.edu/~petersen/teaching/phil-science.html`

I will use this spot to post announcements, assignments, class notes, handouts, syllabus changes, *etc.*

Requirements and grading

Requirements

- 3p paper, 15%
- midterm exam, 15%
- 6p paper, 25%
- final exam, 30%
- section participation, including written questions, 15

You must do every assignment by the last day of exams in order to pass the class. The 3p paper will be an expository paper on an argument and an objection. You will be given a chance to rewrite this paper for a better grade. The 6p paper will include your own thoughts on an issue; you will not be able to rewrite it. *With special permission from me in advance*, upperclass students can write one 10p paper instead of the two shorter papers. If you write the 10p paper, a draft or outline will be due when the 3p paper is due.

The general expectation for a class with almost 4 class-hours is that you will spend *about, and on average*, another 8 outside of class each week, and my syllabus is designed to reflect this. Though the readings tend to be short relative to other classes, the material is very dense, so that you'll need to spend a lot of time on each page. For the kind of understanding required in this class, you will almost surely have to read each assignment at least *twice*. (And yes, that is already adjusting for the fact that you're smart!) In other words, I am giving you some break on the amount of material required, but with the expectation of greater *rigor* with the material assigned.

Grading

Since many students ask me about it, I'll tell you now how I determine grades: I give you a percentage score on all your assignments. For each major assignment I will give a rough idea of what the letter-grade curve would be ("about 83 and above was an A for this paper", *etc.*). In the end though, *only the numbers count* (so for example a high B+ will count more than a low B+ in the final reckoning). I normalize all these numbers using standard deviations. After all grades are in, I weigh them by the proportions above on my spreadsheet to get final normalized statistics. I then use the spreadsheet to order these numbers from highest to lowest, *without looking at the names* associated with the numbers. I then decide "natural" cutoff points for an A, an A-, a B+, *etc.*, guided in part by the statistics and in part by my gut. Finally, I look at the names associated with borderline cases (if any) and let my intuition guide me.

This is a deliberate mix of curved and absolute grading that I think is most fair. This way it is possible for almost everyone to get A's—or, for that matter, for almost everyone to get to get C's and D's—something impossible with precisely curved grading. Your grades thus don't depend entirely on the skill of your classmates. But, this way, I also don't have to pretend to know exactly the level of understanding required for each grade, as absolute grading presumes. Instead, if for example I teach at too high a level, I can still give better grades to those who did *relatively* well. *In practice*, the grades almost always curve around a B- mean.

I will grade the second paper and both exams *blindly*; I won't grade the first blindly because I want to give you an opportunity to bring in drafts. For papers I use a grading rubric that is somewhat open-ended and flexible (not to say "generic"); I will make it available by the time the first paper is assigned.

Late assignments

The philosophy department's policy on late assignments is this:

- Up to 24 hours late: one half-grade off (in my class, I approximate this by a loss of 3 points)
- 24 hours to two weeks late: one full grade off (in my class, a loss of 6 points)
- After two weeks: failure for the assignment

Grade changes

Of course you should feel comfortable asking me about your grades, or pointing out mistakes in my grading. I'm open to the idea that I might have made a mistake! But I've also found that this openness can be abused. So here is my policy on grade-change requests:

- Unless it's a straightforward mistake (on an exam, say) you must submit your explanation for exactly *why* you deserve a better grade in writing (email is fine). We might then make an appointment to discuss it if I think you have at least some good cause.

- If you ask me to reconsider a paper or exam essay, you accept the possibility that my closer evaluation might bring your grade *down* instead of up.
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 - “I have to get into a good law school.”
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Class policies

[This section is nearly identical to that of 4.1.]

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Here is a tentative schedule of the material we will be covering in class. It is subject to change. In general your assignments are to read the material *before it's discussed in lecture*. This first reading is just to get the basic idea, and to know enough about it to ask about the things you don't understand. (This reading is very hard and you should not expect to understand it all the first time—if you *do* feel like you understood all of it, I can almost guarantee that you actually understood next to none of it!) You should then definitely read the material *after* it's discussed in lecture as well—you will find that you get much more out of it the second time around. Also, notice that the readings for some days are quite heavy, while the readings for other days are light to nonexistent. I suggest you plan ahead for these differences.

Readings are in *Introductory Readings in the Philosophy of Science* unless otherwise noted. Remember that though the class topics may not always follow this schedule *exactly*, still the readings will remain assigned for these days unless I explicitly say otherwise.

Part 1: Science and pseudoscience

Week	Date	Readings
week 1	3/28	(none)
	3/30	1 Popper (10p)
	4/1	2 Ziman (6p)
week 2	4/4	3 Feyerabend (12p)
	4/6	4 Thagard (10p)
	4/8	5 Kitcher (13p)
week 3	4/11	Mark Alspector-Kelly, WMU (tentative) <i>3p paper assigned</i>

Part 2: Explanation and law

Week	Date	Readings
week 3	4/13	11 Hempel (19p)
	4/15	12 Lambert and Britten (8p)
week 4	4/18	13 Cartwright (8p)
	4/20	14 Salmon (23p)
		3p paper due by 5pm
	4/22	15 van Fraassen (14p)
week 5	4/25	16 Kitcher (24p)

Part 3: Theory and observation

Week	Date	Readings
week 5	4/27	17 Carnap (17p)
	4/29	18 Putnam (6p)
week 6	5/2	19 Hanson (13p)
	5/4	22 Maxwell (11p)
	5/6	Midterm through 4/29

Part 4: Confirmation and theory choice

Week	Date	Readings
week 7	5/9	24 Quine and Ullian (11p)
	5/11	25 Giere (20p)
	5/13	26 Kuhn (16p) <i>6p paper assigned</i>
week 8	5/16	27 Hempel (14p)
	5/18	28 Frank (11p)

Part 5: Science and values

Week	Date	Readings
week 8	5/20	29 Rudner (11p)
week 9	5/23	30 Hempel (16p)
	5/25	(none)
		6p paper due by 5pm
	5/27	33 Giere (15p)
week 10	5/30	<i>no class—Memorial Day!</i>
	6/1	Quentin Smith, WMU (tentative)
	6/3	(none)

The **final** is as according to the registrar, on Wednesday June 8th from 1–4pm.

Chapter 5

Supplementary Teaching Materials

5.1 Paper Assignment

This paper “recipe” is quite typical of paper assignments I give students. I think one of the primary services a philosophy course can do is cause a student genuinely to consider two sides of a controversial issue, and I designed this style of paper assignment to nurture that skill.

First Paper “Topic”

Three pages, due 10/20/4 by 5p
(draft due 10/18 by 5p)¹

The Recipe

As suggested in class, there is no one set paper topic. Instead I’m giving you a *recipe* for writing the paper.

- First, pick a particular philosophical question we’ve discussed in class (up through Rawls). I recommend choosing a question that both interests and confuses you. Here are some examples of possible questions to explore:
 - Do the retributivists or the humanitarians have a better theory of punishment?
 - Is scapegoating an unescapable objection to the humanitarian theory?
 - Does Karl *deserve* punishment—even though it will do no good to him or society (better try to explain what it is to “deserve”!)²

¹I do not always *require* drafts; it depends on the course.

²This refers to an example from class that a student suggested to test intuitions about punishment—Karl is an old ex-Nazi, the punishment of whom (it’s stipulated) would do society no good.

- Are there objective moral values, or is it all relative?
- Can people act altruistically?
- Is hedonism preferable to utilitarianism? (Is it better to be a “pig satisfied”?)
- Are there any acts that are wrong independent of consequences?
- Should you kill one to save five (in isolated circumstances)? (Better have reasons from Kant / Mill to back up the discussion.)
- Are the formulations of Kant’s categorical imperative equivalent?
- Should I send all my beer money to Oxfam, or some other charity?
- Is there a difference between a child drowning before me and a child starving on the other side of the globe, in terms of my moral obligations?
- Are all our resources—physical and personal—just a matter of a “natural lottery”? Or do we deserve them / their lack?
- Would I choose to maximize utility in Rawls’ original position?

State the question as clearly and precisely as you can. It should take at most a paragraph; it could just be a sentence if you think the question is simple enough. As you can see from the examples above, your question can be quite broad, or quite specific. Do not waste time on a general, speculative, warm-up opening (like “throughout time, people have debated...”). Get right to the point. You only have 3 pages!

- Next, in a clearly-marked section, spend about half the paper arguing for one side of the question. Imagine you are a lawyer making a “closing argument” for that position in front of a skeptical jury. State that position as clearly and *strongly* as you can.
- Finally, in another clearly-marked section, spend the rest of the paper arguing for the *other* side of that question, again as clearly and *strongly* as you can.
- Do not worry about writing a summary.

Advice

- You will be graded on how well you understand the complexity of the issue involved. If one side of your argument is obviously stronger than the other, then either you haven’t thought enough about the other side, or you have chosen a question that is too easy to answer. Be careful not to make one side a “*straw man*”. A straw man is an opposing position stated very weakly, so that it’s easy to knock over.
- Also involved in the grading of your understanding is a rough adjustment for the *difficulty level* of your topic. I am well aware that it is much easier to write about the humanitarian theory of punishment than it is to write about Kant’s categorical imperative. Let me be clear: you can get an A—or a D—writing about either one.

But essentially I grade you on the total amount of thought about the issue shown. So you have to think more deeply about more straightforward issues in order to get the same grade.

- It's better to be too specific and careful (if there is such a thing) than it is to be too broad and speculative. It may seem hard to fill three pages with the question involved, but (for example) on any of the questions above people have written many *books*. Believe me, there will be plenty to say once you start thinking carefully about the issue.
- Be sure to *cite* any sources you use. (You are not expected to use sources other than the readings, but you are permitted to do so.) This includes any websites you read, and this includes any paraphrasing you do. When you cite the text book, you do not need a full reference—just give the page number, and column, and area (top, middle, or bottom), so “p20LM” means “Feinberg page 20, left column, near middle of column” and “p375RT” means “Feinberg page 375, right column, near top of column”. You don't need to cite lecture material. Remember that if you use any sources that you do not cite, this counts as *plagiarism*, and is sufficient for a class failure and report to the dean's office.
- Do not worry about being “creative” in the style or format of your essay—chances are it will just distract from the clarity of your argument, which should be paramount. Also, do not worry about sounding like Kant or Mill, and do not use big words because they're bigger—chances are you'll simply *misuse* them. Use only words that you understand well and that express precisely what you want to say. Write in a style that's natural to you, using language you understand well. It might help to imagine explaining the issue to a bright 11-year-old.
- This may not be all that helpful, but I'm not sure how better to say it: be sure you're doing *philosophy*. That means you're not doing statistics, and you're not relying on a few scattered examples, and you're not appealing to faith, and you're not describing how things *are* in prisons or tax law (or whatever). You should be giving *reasons* for how we *should* think about the issue at hand. The *argument* is what's crucial.

Specifics

This paper should be within about half a page of **three pages**, double-spaced, written in a 12-point “serif” font—preferably Times New Roman or New York Times. It should have 1-inch margins on all sides. Do not skip lines between paragraphs; skip only one line between sections. Put your name and my name on the first page; you might also want to put your name or student ID on subsequent pages, should they get separated.³

The paper should be *stapled* together. **I reserve the right to take points off if you fail to do any of this!**

³This assignment was not blind-graded, since I required drafts; on blind-graded assignments, I require that they put their name only on a separate cover page that I flip past before grading, and look at only after determining the grade.

The paper is due to Sandy's office in Humphrey House by 5p October 20th. You can also give them to me in class, of course.

You can email me with any questions at 'petersen'.

Good luck, get to it!

5.2 Comments on Student Papers

My comments always follow the same format, based on research into effective feedback for students. First, I make some positive notes about the strengths of the paper. Then I isolate my two main concerns about the paper. (According to the research, students are often overwhelmed if there are more than two comments on things done wrong, and end up shutting out the feedback completely.) Finally, I suggest ways I think their next paper can improve.

In different classes I sometimes require a draft, and/or permit rewrites (within a certain timeframe, and subject to the constraint that it's a fairly substantial rewrite).

Usually the numbers themselves mean almost nothing; I use numbers to allow finer shades in grading, but for papers I almost invariably curve the grades, paying much more attention to the mean and standard deviation.

On occasion I have posted online, anonymously and with permission, the best couple papers from an assignment, along with my comments. This helps students both to see how they can improve, and to see that other mortal, imperfect college students are capable of top work in the class.

Introduction to Philosophy Paper Comment

Hey [student],

This is a good first philosophy paper. For one thing, you tackle a very difficult and specific problem, and for that I give you a lot of credit. It forces you to think carefully about an issue that is central to Rawls' theory, and it forces you to think beyond the issues we discussed in class.

One complaint I have is that I think you got a little confused in your discussion of incentive. You want to suggest that the utilitarian society would get worse because it has bad incentive, while Rawls' society would have better incentive. But what do you mean by "incentive" here? I think there's an interesting notion to the idea that people might on the whole be happier in a society that has more equality, and I think that's the point you were headed for. But there are two tough questions for this position: first, why would society be happier if more balanced? Second, wouldn't the utilitarian just take this into account in her utility calculations? She could say: to the extent that happiness comes from a more equal society, *my* theory then says to make the societies more equal. But it still seems possible that even taking that into account, we could have a 900/100 situation instead of a 500/300 one.⁴

⁴Naturally this is a bit of shorthand from class for the debate between whether utility-maximizing is better than a more even distribution with less overall utility.

A more general comment is that I'd like to see more argument for these positions. You spend too much time just stating the positions: a utilitarian would say maximize utility, a Rawlsian would say maximize the minimum. But I can tell from your good comments in class that you can examine things more deeply than that. *Why* should we maximize utility, even at the expense of equality? On the other side, why should we maximize the minimum, even at the expense of overall happiness?

So next time I'd like to see you take a similarly difficult topic, but I'd like to see you get the exposition out of the way quickly so that you can focus on the *arguments* for each side. Ideally your exposition comes *through* your more detailed analysis, if you see what I mean . . . Meanwhile, this paper earns an 85, minus 3 for some lateness, to get an 82 total.

Please come see me if you have any questions or concerns.

[Rewrite gets $87-3=84$]

Philosophy of Science Paper Comment

Hi [student],

This is a very good first philosophy paper. Your structure and style are strong, and you focus your paper well. I especially like the attention you paid to whether creationism aims toward *rational* consensus. This is a key word in Ziman's criterion, and a word easy to overlook.

I was a little mystified, though, by why you took Ziman's criterion to be the best. It's fair enough to just choose one to set the grounds of the debate, but Ziman's seems an odd choice, and I would have liked to hear a bit more about why you thought it was the best. Was it only to give creationism more of a fair fight? A related point is that I'm unclear how the argument to the effect that the creationism consensus is rational was supposed to go. I appreciated that you felt the need to make such an argument, though.

Also, I thought the paper started to peter out some toward the end. You simply assert, for example, that creationism does not have scientific knowledge. But such an assertion begs the question at hand. You should find ways to *argue*, in that section, that creationism does not concern itself with rational consensus. You make some good points in this direction but you could have explored the issue more deeply.

So next time I'd like to see you take on board a more plausible, going view, and fill the whole paper with careful analysis of the type you've shown you can do. Meanwhile this paper scores 90, good work. Please come see me if you have any questions or concerns.

5.3 Exam: Introduction to Philosophy

Hence complete happiness will be its activity in accord with its proper virtue; and we have said that this activity is the activity of study.

—Aristotle, *Nicomachean Ethics*

Instructions. Be sure to put your name, the class name, and the date on your blue book. Total points: 180. You should therefore be averaging about *one point per minute*.

Short answers

4 points each; 48 points total.

1. What is the *wishful thinking fallacy*?
2. What is the *computational theory of mind*?
3. What is the *discrimination principle*?
4. What three necessary conditions did we discuss for possession of *knowledge that p*?
5. What is the *moral responsibility principle*?
6. What does it mean for an ethical theory to be *deontological*?
7. What is the position of *moral relativism*?
8. What is the *Turing test*?
9. What is *dogmatism*?
10. What is the position of *substance dualism*?
11. Under what conditions does James believe it's permissible to believe on faith?
12. What is *doxastic voluntarism*?

Author ID's

12 points each; 48 points total. In each case, who is the author? Explain in your own words the point the author is trying to express, and how it relates to the wider views involved.

The authors: Blackburn, Churchland, Clifford, Descartes, James, Johnson, Moore, Searle, Sextus Empiricus, Swinburne, Turing.

13. "To preach scepticism to us as a duty until 'sufficient evidence' for religion be found, is tantamount therefore to telling us, when in presence of the religious hypothesis, that to yield to our fear of its being error is wiser and better than to yield to our hope that it may be true."
14. "There *might* be a deity who *might* on occasion let someone walk on water, or feed five thousand people on a few loaves and fishes. Still, experience is our only guide as to whether such events occur. If we are to believe that they do because of testimony, then the testimony has to be good: very good, and, in fact, miraculously good."

15. “My response to the systems theory is quite simple: let the individual internalize all of these elements of the system. He memorizes the rules in the ledger and the data banks of Chinese symbols, and he does all the calculations in his head.”
16. “I certainly did at the moment *know* that which I expressed by the combination of certain gestures with saying the words ‘Here is one hand and here is another.’ . . . How absurd it would be to suggest that I did not know it, but only believed it, and that perhaps it was not the case!”

Essays

12 points each; 84 points total. Answer each question as fully, clearly, and carefully as you can in the time allotted.

17. What is the position of evidentialism? What are the consequentialist and deontological versions of this view? How is this related to the question of whether knowledge is a “final” good?
18. What is Pascal’s argument for believing in God? What are some problems with this argument?
19. What, briefly, is the problem of evil? What is the free will defense against it? Why must the free will defense use a libertarian and not a compatibilist notion of free will?
20. What is reductive materialism about mental states? Why does the apparent multiple realizability of mental states present such a problem for this view?
21. What is functionalism about mental states? Why do qualia present such a problem for this view?
22. Why would a hard determinist be unlikely to be a deontologist? (Hint: think of Kant.) What independent reason would a hard determinist have to be a utilitarian? (Hint: think of moral responsibility and punishment.)
23. What topic in this class most made you question your previous beliefs? Did you actually *change* your old beliefs? To what extent? If they changed a lot, why? If they didn’t change much at all, why not?

5.4 Exam: Philosophy of Mind

I used to think the brain was the most *fascinating* part of the human body.
But then I realized: look what’s telling me that.
—*Emo Phillips*

Instructions. Be sure to put your name, the class name, and the date on your blue book (10 points for doing so!). Total points: 200. Since the test is 100 minutes long, that means you should try to get 2 points per minute.

Definitions

4 points each; 40 points total (should take about 20 minutes).

1. What (briefly) is the position of *substance dualism*?
2. What is *epistemology*?
3. What is Leibniz's principle of the *indiscernability of identicals*?
4. What is it for a proposition to be *contingent*?
5. What is (roughly) the position of *epiphenomenalism*?
6. What is the *syntax* of a language?
7. What is it for a property to be *intrinsic*?
8. What does it mean to say that A *supervenies on* B?
9. What is a *virtus dormativa* style of explanation?
10. What (roughly) is the position of *physicalism*?

Short answers

15 points each; 150 points total (should take about 80 minutes). Choose 10 of the following 12 essay questions. Answer each question as fully, clearly, and carefully as you can in the time allotted.

11. Is functionalism compatible with eliminative materialism? Why or why not?
12. What is the difference between *analytic functionalism* and *scientific functionalism*?
13. What is the position of *type identity theory*, and what is the main objection to the view?
14. What is *analytic behaviorism*, and what are its main problems?
15. Summarize the argument Putnam gives that "meanings just ain't in the head!"
16. What is the Turing test? Why does Searle think it inadequate, and how does Dennett disagree?
17. What is the *disjunction problem* for causal theories of meaning? How does Fodor try to fix it?
18. How does David Lewis try to accommodate both mad pain and Martian pain?
19. What is the *swamp-person objection*? (What position in our readings does it object to, and why is it an objection?)

20. What is Jackson's *knowledge argument*? (What position does it object to, and why is it an objection?)
21. Why is *mental causation* a problem for "qualia freaks"?
22. What is the *vitalism objection* to Chalmers' conceivability argument? How might Chalmers respond?

Clearly I know, the mind is mountains, rivers, and the great earth; sun,
moon, and stars.

—*Dogen* (Zen master and early materialist)

5.5 Final Exam Review

This is the latest incarnation of the review for the final exam of my introduction to philosophy class.

Introduction to Philosophy—Final Review

Fall 2004

Here, basically, are the key issues of the course on which you should concentrate for your exam. A *disclaimer*: this is just a rough outline of the key topics of the course. I don't promise that I've covered everything here. Also, there is little you can recover about what will be on the exam from this list; the fact, for example, that something is only mentioned briefly or has no sub-listing does not suggest it is unimportant. Also for some of these listings you need only know a brief definition; for others you need to know more details. I leave it to you to figure out which are which. In particular, the points for section III look much shorter than section IV. *This does not mean that they are less important or that you should spend less time struggling to understand them.*

The form of the exam. The exam will have author ID's from the second half of the course only. It will also have short answers that are at least *mostly* from the second half of the course. But there will be more essay questions than on the midterm, and for those essay questions, *any course topic* (or combination thereof) is fair game.

Of course this is **in addition to the midterm review**. See also the class [concept map](#).⁵ It's a very good exercise for the essay questions to try to explain all the connections on the concept map.

- part III: mind, body, and artificial intelligence
 - theories of the relation between mind and body—arguments for and against
 - * substance dualism
 - * materialism
 - reductive materialism, and objections like multiple realizability
 - functionalism and objections from qualia

⁵The original webpage, of course, links to these resources.

- artificial intelligence
 - * the computational theory of mind
 - * the Chinese Room argument, its conclusion, replies
 - * the Turing test
 - * intentionality
- part IV: knowledge and God
 - epistemology
 - * knowledge and its three minimal conditions
 - * skepticism
 - the skeptical hypothesis
 - the discrimination principle
 - Moorean dogmatism
 - the problem of the criterion / wheel
 - God and the problem of evil
 - * the problem of evil (the 4 apparently inconsistent claims)
 - * the response that all evil is necessary (and thus this is the best of all possible worlds)
 - the (libertarian) free will response and objections
 - Johnson’s “conclusive objection”
 - the ethics of belief and the permissibility of faith
 - * class definition of ‘faith’ as belief without evidence
 - * evidentialism and Clifford, Blackburn
 - the consequentialist interpretation of evidentialism
 - the deontological interpretation of evidentialism
 - objections to each
 - truth / knowledge as instrumental vs final good
 - Blackburn / Hume on miracles
 - * pragmatism and James, Pascal
 - James’ conditions for permissible willed belief
 - Pascal’s wager
 - objections to each view
 - * “doxastic voluntarism”
- miscellaneous
 - the wishful thinking fallacy

5.6 Midterm Debriefing

Often after exams I will post a “debriefing” online with facts about the average scores, models of good essay answers, and so on. Below is one such example from my philosophy of science course, adapted straightforwardly from the original HTML format.

Philosophy of Science—Midterm Comments

Here's a copy of [the midterm](#) in pdf format.⁶ The overall average was 70.63 with a 10.77 standard deviation. If I were to assign letter grades on it, now, the curve would go approximately like this:

79+: A
69+: B
59+: C

Here are comments on each of the 10 problems from the midterm, with some sample good answers.

1. This was discussed some in class. An ideal answer would have said what induction *is* (reasoning where the premises could be true and the conclusion false; an example like “F1 is G and F2 is G and ... F893 is G, therefore all F’s are G’s” is helpful) and would have pointed out that the *real* problem is to say how the premises *do* support the conclusion given that the argument is not deductive. I don’t think anyone got a 5/5 on this.
2. This was pretty straightforward, and many did well with it. Basically epistemic relativism is the position that any method for getting knowledge is as good as any other. Some of you said something about “knowledge is relative”—fine as it goes, but what does “relative” mean in this context?
3. The key here is that theoretical terms refer to non-observables. You should mention something about where the line is or could be on what’s observable—for example, what Carnap thinks the line is. I was a bit picky about terminology—a theoretical term is just a word (or phrase), and that word is observable. The theoretical term *refers to* something that is unobservable. It’s worth paying attention to distinctions like this. At most a point off for that mistake, though.
4. Again, fairly straightforward. The D-N model is the “deductive-nomological” model of explanation; according to it, a good explanation is a deductive argument that includes a law in the premises. For full marks you should ideally say what it is for an argument to be “deductive”. Other good things to mention in connection with this question: Hempel, *explanans* and *explanandum*, the *explanans* must have empirical content, and the premises must be true to count as a genuine explanation. (You didn’t need all of this for 5 points, but any part would help.) Incidentally the average score for the short answers was 15.78 out of 20, with a standard deviation of 2.88.
5. On the Author ID’s, the correct author was worth 6 points, and what you say about the material up to another 6. Here is a model answer for this question:

Salmon. Salmon believes that all explanation should have causal relationships. If this is so, it would be impossible to imagine an explanation that would hold true across all possible worlds—including one

⁶Naturally this was a link to the midterm. And were I to edit these, I would edit out the redundant ‘format’ in this sentence!

where things may happen without cause. Instead, we must be satisfied, according to Salmon, with an explanation that holds true in this world, where causes do exist. Furthermore, our law should be based in cause. It DOES NOT follow that to explain is necessarily to predict! This is important to refute Hempel's model of perfect, logical (but not world-dependent) explanation. [11 points]

This answer is very good—the key points are Salmon's introduction of causation to explanation, and what this means for potential formal models of explanation. A small quibble: refutations of Hempel's model are in examples where explanation seems asymmetric with prediction; Salmon does not refute Hempel's model but *fix* it with causation, and then conclude that given we need causation, no formal model will work. 11 was the high score for this essay—the average was 7.74 of 12 with a standard deviation of 2.35.

6. This shouldn't have been *too* hard—the quotation includes the title of the paper, Kitcher's "Believing Where We Cannot Prove". Many guessed Feyerabend. But look again at the quotation—though Kitcher claims we cannot *prove* scientific claims, he is clearly not an epistemic relativist. Good answers understood this (*and* knew it was Kitcher!). A good answer:

Kitcher (demarcation one). He is expressing his belief that people believe in the overly simple dichotomy of proof vs. faith when it comes to demarcation. He states that nothing, not even science, can be proved or given complete verification. However, he also thinks that there is a reason scientific conclusions are embraced and goes on to say that science can be defined as having characteristics of independent testability, fecundity, and unification. [11 points]

This answer is good. It explains the quotation itself well and connects to the wider issue of demarcation (though briefly). Quibbles: it's not clear that Kitcher thinks *nothing* can be proven. He seems willing to think maybe math and such are examples of proof. Also, the answer might ideally have said a little more about the demarcation problem, and why Kitcher thinks evolution is a science but creationism isn't. 11 was the top score for this problem; it averaged 6.96 of 12 with a 3 standard deviation.

7. This one was especially difficult, I think. First, you have to remember the crucial point of this small article by Lambert and Britten, namely, that to distinguish laws from *accidental generalizations* we need to understand our laws "counterfactually". A model:

Lambert and Britten. Lambert and Britten assert that lawlike statements support counterfactuals (in which the antecedent is false, but, were it true, the conclusion would also be true) to avoid circumstances where "accidental generalizations" masquerade as "laws". It seems reasonable that the statement "All people sitting on this bench are Irish" is not a law, because it is conceivable that an Italian, etc. could

also come along and sit on the bench. Deciding what counts as a law is necessary for the covering law model of explanation. [11 points]

This is a very good answer. It gets to the heart of the matter, the example is nice, and it connects to the wider issue of explanations and laws at the end. Quibble: counterfactual conditionals don't *always* have false antecedents; even if I actually do heat the iron, it's still a law (and true, *ceteris paribus* anyway) that iron expands if heated! Average: 6.93, standard deviation: 2.68.

8. First, remember that falsificationism is not about how we should *do* science. It's about what *is* a science in the first place. An ideal answer would have described "Popper's trick", then how Popper's evasion of the induction problem solves the demarcation problem. Then it would have explained the two main objections to his theory discussed: the *ad hoc* problem, and the problem of confirmation. Many of you mentioned these problems, but few could explain them well. A model answer:

Falsificationism is the demarcation view brought forth by Popper. An extension of the logical positivist view that theory is [sic] scientific if it is testable, falsific. says that a theory is scientific if it is testable & falsifiable. That is, a theory is scientific if it can be shown to be incorrect, if there is a clear, possible way it can be proven wrong (incidentally, this "solved" the problem of induction—by flipping it around and using "if there is an x such that x contradicts theory, then theory is false" instead of "if many x fit theory, then theory is true"). The problems with this view are twofold (at least). First, there is no way for Popper to say one theory is better than another. There is no confirmation. Second, falsificationism requires that if a theory is falsified, that it be wholly abandoned; however, sometimes simple modifications should be made (non *ad-hoc*) to keep it alive. Popper doesn't allow this. [13 points]

This is a good answer, it was one of the few that mentioned Popper's trick. It could have explained a bit more about the *ad hoc* problem, as some of you did. I would also liked to have heard more about why Popper can't get confirmation. I recognize it's hard to do all that in limited space, however. Also, remember that "*ad hoc*" alterations to a theory refer to inappropriately finagling theories in order to save them from falsification. (The *problem* is to tell when adjusting the theory is merely *ad hoc* and when legitimate, as in the case of dirty beakers messing up experiments and such.) The average was 10.37 out of 14, with a narrow 1.25 standard deviation. Many did quite well on this question, and almost everyone did pretty well. That pleases me. ;)

9. Many made the minor mistake of saying that the covering law model is the same as the D-N model. That's not right, as we emphasized in class—for example, the I-S model is another example of the covering-law model. This problem was especially hard to answer completely and concisely, but a few managed wonderfully. Here's a very good answer:

The covering law model of explanation is one in which an explanation contains an explanans (which includes a relevant law), the conclusion of which is an explanandum, or observable phenomena to be explained. Hempel thinks that to explain is to make a phenomenon unsurprising and predictable had we known all relevant information. This is wrong because we can think of examples (predicting the length of a pole by the length of a shadow) that are valid predictions, but not good explanations. We can also think of examples in which the law and statements used are irrelevant to the conclusion (John didn't get pregnant because he used birth control). Kitcher attempts to solve these problems by saying that to explain is to increase understanding and to increase understanding is to reduce the number of "brute facts". We do this by minimizing the number of necessary argument patterns to explain phenomena. Because this asymmetry [sic] and irrelevant counterexamples don't effectively minimize argument patterns, Kitcher can rule them out as valid explanations (we can explain the length of poles w/ shadows but what about poles in the dark? We can explain why men on b/c don't get pregnant, but what about men who aren't on b/c?). [14 points]

This was a great answer—especially impressive that the student managed also to mention the conflicting general approaches to explanation at stake (expectability vs increasing understanding). Many students remembered the examples, but weren't so clear on why they were problems for Hempel or how Kitcher solves them. 10.11 out of 14 average, 2.1 standard deviation.

10. Many forgot to relate this to the demarcation problem—that was perhaps the hardest part of this question. A model answer:

Naturalism is the view that philosophy & science are continuous. Naturalization projects attempt to put philosophical concepts (modality, morality, meaning, etc.) into scientific terms, explanations. MAK's problem w/ naturalism is to do w/ the exclusionary clause it makes—that science is the only valid way to get knowledge. If this is the case, then the only way to be assured that is true is to treat that "theory" scientifically . . . which can't be done. Or can it? Whether or not that claim is scientific depends on how to demarcate the line [sic] b/w science & pseudoscience. However, despite that ambiguity, a common criterion for scientific theory is testability. In this case, naturalism's exclusionary clause is not testable & is therefore not scientific. Hence, MAK labels naturalism as self-undermining. He appeals to "opportunistic naturalism". [13 points]

This isn't an ideal answer, but I especially liked this student's point questioning whether an exclusionary clause *must* be non-scientific, and the student's good start of an answer on MAK's behalf. You don't *have* to make original points that show deeper understanding of material on exams—but it can sure help! The average was 10.74, with 1.46 standard deviation. Many did pretty well on this.

Also, everyone got two points for filling out their covers! However there were some close calls—be sure to fill your covers out completely. This is for your sake—if I lose your bluebook somehow, you want it to be able to find its home fast.

5.7 “Virtual Handout” for Introduction to Logic

This is part of a series of handouts I developed for an introductory (or “informal”) logic course. It is a “virtual” handout because it was posted online rather than physically handed out. I designed it to supplement standard texts for such courses with a section on “practical logic”. We first discuss subjective probability and Dutch booking, and then work on expected utility, and finally in class we do exercises illustrating “paradoxes of rationality” such as the prisoner’s dilemma. (Those exercises are always entertaining.) This is the second in the series of handouts, on expected utility.

Decision Theory and “Practical” Logic Part 2

Expected Utility

- In deciding whether to do something, we obviously shouldn’t *just* look at the goodness or badness of possible outcomes. Otherwise we’d probably never drive anywhere, for example, since it’s always possible that we’ll die in a car crash. We also shouldn’t *just* look at the probability of the outcomes. If some bungee-jumping company has a 10% mortality rate, we shouldn’t figure that odds are in our favor. Instead what we want is some way to decide that takes into account *both* the outcomes that might come about, and the probability that they will. That’s what **expected value** (EV) calculations do.
- Suppose for example I hold a lottery for my 50 students. The winner will receive \$50. Would you buy if I sold the ticket for \$.10? Of course you should. But you *shouldn’t* buy the ticket if I sold it for \$5. What’s the fair price? \$1, of course. But why? In a way, since that ticket represents a 1 in 50 chance at \$50 dollars, we treat it as though it were *now* worth 1/50th of \$50, or \$1. The “expected value” of the ticket is a dollar, so that’s how much you should pay for it.
- Notice that expected values aren’t really *expected*. In the lottery case, for example, you shouldn’t actually expect to get \$1 for having bought the ticket. You should expect to get \$50 or nothing.
- In general, we measure the expected value of an action this way:
 - first, consider *all* the possible outcomes of the action, so that you have a list that’s jointly exhaustive and mutually exclusive.
 - next, figure out what the “value” of each outcome is.
 - next, figure out what the subjective probability for each outcome is. (If your list of outcomes is mutually exclusive and jointly exhaustive, the probabilities should add up to 1.)

	company does fine	company goes under	EV
put money in bond	90% x \$1,100 = \$990	10% x \$0 = \$0	\$990

Table 5.1: EV example: good investments.

	nothing happens	burglary (no tornado)	tornado (no burglary)	
didn't buy	89.1% x \$0 = \$0	9.9% x -\$3,000 = -\$297	.9% x -\$10,000 = -\$90	//
	burglary and tornado!	EV		
<i>ctd</i>	.1% x -\$10,000 = -\$10	-\$397		

Table 5.2: EV example: buying insurance.

- multiply the value of each outcome by its subjective probability.
- add all those numbers together. That will be your expected value of the action.

- **Examples.**

- Suppose you have \$1,000 to invest. You can put it in a bank for a year, at 5% interest. Or you can put it in a corporate bond for a year at 10% interest. Of course you might not automatically decide to put the money in the bond, because there's some *risk* that the corporation will fail and you'll get none of your money back. Suppose there's a 10% risk the company will go under. You can decide what to do based on a table like 5.1.

Since the EV for putting your money in the bank is \$1,050 (supposing there's *no* risk the bank will lose your money), you should put your money in the bank—you have a higher expected value for doing so. As an exercise: what percentage of risk would be required for it to be better to invest in the corporate bond?

- Suppose you're deciding whether to buy renter's insurance. You have about \$10,000 worth of stuff, and you figure there's a 10% chance your place will be robbed over the next year—they'd likely be able to carry out \$3,000 worth of your things. You also figure your apartment is pretty old, and a tornado would ruin it—and there's a 1% chance of that. There's thus a .1% chance *both* things will happen to you. Suppose also renter's insurance costs \$100 for the year. Table 5.2 is an EV calculation for *not* buying insurance in this case.⁷ Obviously if you *do* buy insurance you lose \$100 whatever happens (or doesn't happen) to you. On the bottom row, you have a total EV of losing \$397. It seems to be in your favor, then, to buy insurance in this case—if the probabilities and outcomes are measured correctly. (10% seems fairly high for a burglary, for example.)

- **Less intuitive examples** that make us think things are more complicated. Maybe *money amount* isn't always the best way to measure *value*.

⁷These tables have been modified slightly for the format of this portfolio; they fit better in HTML.

	Choose correct answer	Choose wrong answer	EV
Guess	$50\% \times \$125,000 = \$62,500$	$50\% \times \$32,000 = \$16,000$	\$78,500

Table 5.3: EV example: *Who Wants to be a Millionaire?*

- Suppose for example you’re on the show *Who Wants to Be a Millionaire?*⁸ You’ve just been given a very difficult question—you have no idea what the answer is. If you don’t guess at all, you can walk out of the studio with \$64,000. If you guess and your answer is wrong, you leave with only \$32,000. And suppose if you guess correctly, you will get \$125,000 (the next question is even harder, and so you would leave with your winnings, suppose). Suppose also that you have the “50/50 lifeline” left to use, so now you only have to guess between two answers. What’s the expected value for guessing? (See table 5.3.) Since your EV is \$64,000 if you don’t guess, and your EV is higher if you do guess, it seems you should definitely guess. Many people don’t in these circumstances though. Do you think they’re being smart or stupid?
 - Now suppose instead I’m a rich guy, and I’m willing to just *give* you \$80,000. I’m also a gamblin’ guy, though, and so I offer you this bet: you can take the \$80,000, or I’ll give you an 80% chance at \$100,000 and a 20% chance you get *nothing*. Since the EV is the same either way, you should be indifferent to whether you take the bet or not. But *are* you?!
 - Suppose instead that you *owe* me \$80,000. I offer you this bet: 80% chance that you’ll owe me \$100,000, and 20% chance that you owe me nothing. *Now* how do you feel about the bet? Again, EV calculations suggest you should be indifferent. (These two examples are from Amos Tversky, I believe.)
 - Finally, suppose you have \$30 million. (Yea!) Bill Gates offers you this bet: a 2% chance at \$3 *billion*, and 98% chance that you lose all your money. Do you take this bet? According to expected value calculations, you certainly should. But I know *I* wouldn’t.
- All these show, I think, that it’s not always best to measure the value of the outcome in terms of money. Instead, sometimes you want to measure the outcome in terms of **utility**—the *goodness* of the outcome for you in roughly quantified terms. Sure your life would be better if you had \$3 billion instead of \$30 million, but not 100 times better! That’s because you get a *diminishing marginal return* of utility for each added amount of money. \$10,000 means nothing to Bill Gates but it would mean a lot to me; it has much more *utility* for me.
 - Once we’re thinking in terms of utility, you can use EV-type calculations for lots of different decisions.

⁸Needless to say this show was a good deal more popular when I first wrote these handouts. But students still know the case.

	Pat says “yes”	Pat says “no”	EV
Ask Pat out	$10 \times .6 = 6$	$-5 \times .4 = -2$	4

Table 5.4: EV example: Asking Pat out.

	God exists	God doesn’t exist	EV
Believe in God	$1\% \times \text{eternal bliss} = +\infty !$	$99\% \times -20 = -19.8$	$+\infty !$
Don’t believe	$1\% \times \text{eternal hellfire} = -\infty !$	$99\% \times 20 = 19.8$	$-\infty !$

Table 5.5: EV example: Pascal and God. (We are supposing the -20 cost because if there is no God, then going to worship and such are largely wasted time; similarly the 20 bonus is for getting to do what you like instead. As you can see, these finite numbers matter not at all in the calculation.)

- Suppose you have a crush and you want to ask the person out (call him / her “Pat”). You’d be so happy if Pat said yes, you’re willing to call that 10 “utility points”. If Pat rejects you, though, you’d be really disappointed, start to worry if you’ll ever find someone, etc.—maybe you lose 5 utility points. (Or maybe your hopes would be dashed forever: -1,000 points! But then presumably the plus if Pat says yes would also be huge.) What’s the EV for asking Pat out? Well, first, assign a subjective probability to Pat’s saying yes—maybe 60%. (Pat does flirt with you sometimes, but other times Pat seems kinda uninterested.) Your EV looks like table 5.4, then. If you don’t ask Pat out, you’ll always wonder what Pat would have said, and you carry a small amount of regret for the rest of your life. That’s, say, -1 point. Well, clearly, in this case you should ask Pat out—it would have higher “utility” for you!
- *Pascal’s Wager*. Blaise Pascal gave a famous argument for believing in God (the God of the Christian tradition), based on the following table. Suppose there is even just a tiny chance, maybe 1%, that traditional God exists, and look at table 5.5. According to the EV calculation you’re obviously much better off if you believe. Well, what do you think? For those of you who don’t believe in Pascal’s God—has he convinced you to start making yourself believe?!

5.8 Concept Maps

Among the more innovative study guides I’ve used are *concept maps*; copies are reproduced (slightly reduced in size) in figures 5.1 and 5.2.

5.9 Exercise: Philosophy of AI

The mechanics of an *artificial neural network* are challenging for non-technical philosophy students, and so I designed this exercise to help. First, I introduced them to

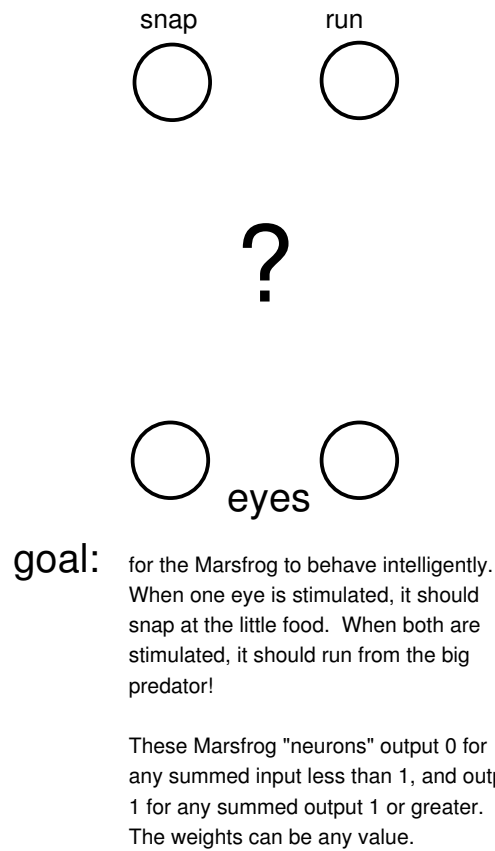


Figure 5.3: The “Marsfrog” problem

the simplified “Marsfrog”, as in figure 5.3, and had them work in groups to find appropriate weights and hidden layers for the network to make intelligent behavior. Then we discussed their solutions and mine (shown in figure 5.4). Supervising the group work turned out to be unusually helpful for determining the various ways students understood—or didn’t understand—the somewhat technical material. It was also engaging for the students, and made for a lively discussion afterward of what could have been dry material.

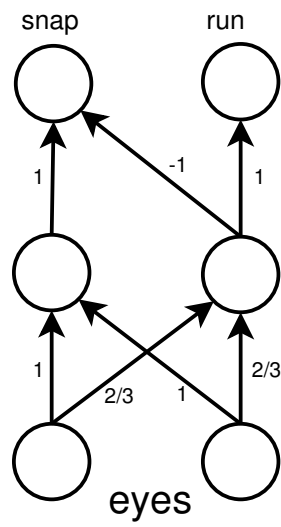


Figure 5.4: A "Marsfrog" solution

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