If I had the influence with the good fairy who is supposed to preside over the christening of all children, I should ask that her gift to each child in the world be a sense of wonder so indestructible that it would last throughout life, as an unfailing antidote against the boredom and disenchantments of later years, the sterile preoccupation with things that are artificial, the alienation from the sources of our strength.

—Rachel Carson, The Sense of Wonder

Rachel Carson challenges those of us who teach to be the ones who continue to give students wonder. Too often, unfortunately, boredom, sterility, and alienation dominate the college classroom. But it need not be that way.

For the past three years, I have volunteered in first, second, and third grade classes, helping kids learn how to read, put together a newspaper, and do Odyssey of the Mind.

I am consistently struck by the eagerness and the rapidity of their questions, their openness to new ideas, their wanting to know about everything and to answer any and all questions I put to them.

And I am just as consistently struck by the contrast between the faces and attitudes of these six-, seven-, and eight-year olds and those of too many college students —silent, tight-lipped, afraid to ask questions that might seem foolish, or worse yet, prolong class—basically bored.

What happened? An episode from my own education suggests an answer. In high school, I was blessed with a chemistry teacher who gave us free access to the chemistry lab. We were given specific problems to work out, experi-
My experience in my first chemistry class in college was so dreadful that I dropped chemistry as a major.

What did me in was the labs. In high school, labs were filled with wonder and play. In college, they were experiments in expediency.

We were herded in 50 at a time, given three hours to read, set up and perform an experiment, and write up the results. This procedure was efficient for the instructors, but for me, as a student, deadening. I didn’t have the time or opportunity to test out ideas, think about my results, or enjoy what I was doing. The passion of my life dried up. Chemistry became boring and tedious.

This experience taught me very little about chemistry but a lot about education. It taught me that education can open students to a natural inherent wonder, or it can shut it down.

Wonder—wanting to know, to understand, the quest for wisdom—begins in radical amazement, puzzlement, curiosity, profound questioning, often confusion and a sense of awe in the face of what we do and do not know. How to create this openness to learning in the college classroom? My first graders and my high school chemistry class show me how.

My first goal is to restore to university students the universe of the child, as my high school chemistry teacher did for us. This means in part letting students play—play with ideas, play with questions, play games, play with ways of approaching problems.

The natural sciences and the fine arts are lucky to have “play” built into their endeavors, whether it be experimenting in the lab, field research, or drawing, painting, sculpting, acting, or making music. I also am fortunate to teach a course on “Women, Religion, and Spirituality” that by its very nature requires hands-on play: dancing, singing, drumming, and working with clay.

In one exercise, students work with clay, working without intention, letting the clay form itself in their hands, discovering what they come up with and what it might mean spiritually. In another exercise, students drum together, learning to listen to themselves and each other simultaneously, discovering rhythms and connectedness.
History and literature can be brought to life using music, drama, and other ways of recreating the past.

Exercises like this are appropriate to a class in spirituality. But what about the social sciences, business, education, and the humanities, where “play” is not so intrinsically part of the discipline? I would argue that these other disciplines are just as conducive to play. They simply require a bit more creativity on the part of the instructor.

The social sciences, after all, have been using simulation games for decades to engage students in mock societies, bureaucracies, and businesses. “SimSoc,” a simulated society, was used in a variety of college classes, from sociology to urban studies, in the ’70s, as was “Starpower,” a game involving power and difference, in the ’80s. Fairhaven College currently uses “The World Game” to begin the year with its entire student body.

History and literature can be brought to life using music, drama, and other ways of recreating the past. One of my colleagues regularly assumes the role of Karl Marx for his course in Radical Economics. Another comes to class dressed in costume and playing the part of Medusa in her class on mythology.

I’ve taught women’s history using a cooperative learning project that has students recreate Judy Chicago’s “Dinner Party.” Students, working in small groups, research a famous woman and then create a placemat that represents her. Symbolizing a woman’s life this way, many students say, stretches their thinking about her.

I find these imaginative approaches especially helpful in my field of political theory, which is so conceptually oriented, and I think the approach would work as well in teaching the theoretical groundings of all academic disciplines.

Many students approach theory and conceptual learning fearfully. “Theory” sounds so intimidating, so remote and abstract. But I find that theory presents multiple opportunities for play, and I quite often mean this literally.

Much of theory is left-brained, analytical, so I often try to get students to understand concepts by having them use their right brain first. We use music, poetry, collage, drama, games and play-doh—which really brings students back to their childhood—to access their right brain.

One example: In getting my introductory theory students to think about power, I have them work in small groups making collages that show representations of “power.” Each group then presents its representation to the whole class. This collective “debriefing” is important to the learning process. It shows students how varied the
The point of this cooperative learning exercise is to see the effect of self-interested bias on creating just principles.

Many depictions of power are, ranging from military armaments to "power suits" to mounds of money to "power to the people."

This presentation eventually encourages discussion about the multifaceted conceptualizations of power represented in the theoretical literature—from "power over" to "power to" to power as collective action. Starting from their own experience making and discussing the collages gives students a concrete way to understand how power can mean so many different things.

Similarly, in introducing John Rawls' concept of justice, rather than simply restating his ideas about the "veil of ignorance" and his two basic principles of justice, I have students, again in small groups, collectively develop principles for the just distribution of organs for transplantation.

I give some groups information about the people waiting, others only information about themselves, assuming they are among those waiting, and others no information whatsoever, only that they are among the waiting (Rawls' "veil of ignorance").

The groups then report the principles they've developed to the class as a whole, where the real learning takes place. The point of this cooperative learning exercise is to see the effect of self-interested bias on the creation of just principles.

Those who are under the "veil of ignorance" arrive at principles quite similar to the principles Rawls gives us, while the others develop principles biased in their own favor. Students then reflect on the nature of bias and self-interested behavior, and how this bias affects our conceptualization of justice. They are then better able to understand and to critique the Rawls principles of justice.

In a class in ancient political theory, I have students act out Plato's tripartite soul. I divide the class into three groups, and each group has to represent one part of the soul—appetite, will, or reason—in a choral theater. The groups begin by thinking about what their particular part of the soul would say and how it speaks in themselves. We then experiment with all parts speaking at once, so the students think about what it would be like for different parts of the soul to drown out the other parts.

This questioning draws students into Plato's own questions about the harmony of the parts of the soul—how injustice might arise when appetite drowns out reason, or how justice might arise from reason speaking more loudly than the other parts of the soul. This, in turn, leads to a discus-
I ask students in groups to come up with the questions that we will later explore in the larger class.

The point in all this is to get students to access their natural capacity for wonder, to awaken their desire to know and understand, and then use this to raise reflective questions and develop more abstract conceptualization abilities.

Carefully constructed discussion exercises also contribute to awakening this desire. I often have students break into small groups where they feel safer opening up, and have more opportunity to speak, and give them questions to work with.

Sometimes these are questions to which they need to apply the material in their readings—such as applying Machiavelli’s criteria for good laws, or using Aristotle’s definition of justice to determine the justice of particular situations.

Others are more general exploration questions: How gender division of labor underlies relations of power and domination in society as a whole, for instance. These exercises help students think critically about the theories and about society. Such structured discussions could be used across disciplines.

Sometimes I ask students in groups to come up with questions that we’ll explore later in the larger class. Other times, we begin the class by asking each student to point out particular areas in the text or questions they want to explore.

For example, in a utopian literature class, one group of students was puzzled by the seemingly improbable actions of the citizens of a fictional utopian community who risked their own lives rather than inflict violence on their enemy.

This led to an hour and a half exploration of real-life examples of similar actions and the students’ critical exploration of the issue of means and ends, and the possibilities of nonviolence in the face of oppression.

I find that when I begin class with student questions—and the students know we will devote class time to exploring them—they are more likely to open up, than when I
I structure some assignments to get students to bring their explorations back to the classroom.

end with the traditional, “Any questions?”—and their responsiveness is “punished” by the disdain of their classmates for prolonging class.

I also use assignments outside the classroom to get students to play with ideas. As a general rule, I try to allow enough flexibility in assignments so students can pursue topics and avenues that are most conducive to their own questioning.

I structure some assignments to get students to bring their explorations back to the classroom. I like, for instance, to have students question what they’re reading, not merely take it in. So I often have them write “responses to the readings.” In the responses, students write about what intrigues them in the text.

This technique could be used in many classes, from literature to philosophy to physics to education. Here are some of the questions that emerged from student responses in a political theory class: “What are the grounds of justice—morality? divinity? utility?” “What is the relation between the just and the good?” “To what extent, if at all, can the mind and body be shaped and manipulated, or is there an inherent immutable human nature?” “What is it to be godlike? How do we know?”

We then use the responses to focus discussions in class. Or I give the students more structured assignments. In my utopias class, one option is to observe an elementary school classroom or a bar or a church service and compare it to life in Brave New World.3

In one class, a student’s observation of an elementary classroom led to quite a discussion about the conditioning and drug use (Ritalin) used in elementary schools. The discussion started students wondering about how much mind control goes on in public schools.

In my introductory theory class, I sometimes have students read the beginning scenario of Derrick Bell’s Space Traders, in which aliens want to take the entire Black population of the United States in exchange for limitless clean energy and lots of money. The government needs to decide what to do.4 The students then have to write the rest of the story.

The process of writing the story highlights racial divisiveness, societal priorities, the nature of authority, the nature of justice, and so on.

Another exercise in my intro class has students research the race, class, gender, and religion of members of Congress. This leads students to wonder why our governing bodies are so unlike the general population, and what changes might lead to a more representative body.
The rules of discourse in my classroom are designed to promote open expression and respectful listening.

I also find it helpful to apply student questions in class to their assignments. For example, in my course on “Meaning, Justice, and Work,” the class collectively brainstormed questions about meaning and justice in the workplace.

Students then used the questions to design a questionnaire that they used to interview people in a variety of work situations. They brought their results back to class, and we used these results as real-life grounding for our further discussions throughout the course.

I hope such assignments leave students wondering. I recently received this note at the end of a paper: “This assignment has, instead of answering questions, just brought up a few that I will continue to ask in the future.” That, to me, is opening to wonder.

So far, I’ve talked about hands-on play, cooperative learning, simulation games, experiential education, application of concepts to real-life situations, structured in-class discussion questions, and out-of-class assignments, engagement with students’ own questions, and the application of their questions to collective research projects.

These techniques have all worked well for me in social science and humanities classes and could be easily adapted across the disciplines. But these are only vehicles that, if unaccompanied by an appropriate atmosphere, will go nowhere.

To enable students to open their minds in any discipline, we need to provide a space where their questions are treated with respect, where experimentation in thought and practice is encouraged, where nonjudgmental listening opens students up to their own questions and ponderings, where the marvelous synchronicities of ideas can emerge.

The rules of discourse in my classroom are designed to promote open expression and respectful listening, to encourage students to challenge each other’s ideas but not to engage in personal attacks. The rules include no hogging the floor, no blaming, no shaming, no personal attacks, and respecting the confidentiality of the classroom. I also encourage students not to channel all the discussion through me.

We’re not always successful. Arrogant, judgmental attitudes by some tend to stop the out-loud wondering of many others. I am as guilty of this as any of the students. So, when it seems that the open and non-threatening atmosphere of free and full discussion has broken down, I stop talking about the content of the course and devote time to process.

We use a simple listening exer-
I watched all the students bowing their heads in unison, writing down what I said, taking it in on my authority.

cise. Students pair up, and each has to listen to the other person without interrupting and without forming responses. The listeners then repeat what their partners said back to their partners or the class as a whole. The transformation in the class after this exercise is wonderful in itself, with students becoming more respectful and understanding and generally freer with each other.

Creating an open atmosphere also requires freeing students to challenge the professor. Students often seem conditioned not to question. I remember one of my first experiences teaching a class of a hundred in Introduction to American Government. I watched all the students bowing their heads in unison, writing down what I had said, taking it in on my authority. I was stunned and appalled. I realized I could tell them just about anything. They would write it down and, presumably, accept it as true.

Now I give students regular opportunities to question what I tell them, often asking each of them whether they agree or disagree and why. The students soon learn that I welcome their contributions, and that they are not graded on whether or not they agree with me.

I also give students contrasting points of view, so they see the questioning process in the literature itself. For example, students in a course on feminist theory are amazed to find such disagreement among feminists on the subject of motherhood. These disagreements range from those who embrace maternalism and its values of compassion and care as the basis of a more respectful and humane world to those who would seek to eliminate all biological motherhood whatsoever. Seeing this range of views frees students to risk their own questions about the issues.

Every discipline has its unresolved dilemmas—economics has its Keynesian versus Marxist economics, education its whole language versus phonics, psychology its humanistic versus psychoanalytic schools—that can be addressed in a similar fashion.

Sometimes students come begging for “the truth.” They want black-and-white answers. But most students welcome the opportunity to question. Several students have told me years after a class, “That was the first class where I actually had to think!”

One of the most important elements in creating this open atmosphere is what I would call “mindfulness”—the Buddhist principle of attentiveness to the present moment.6

Mindfulness involves being fully present to the students, to
Bringing questions arising from our scholarly pursuits into the classroom enlivens the class.

can be the
responses to their inquiry and follow the students' lead. If I see boredom creeping onto their faces, shift gears.

Indeed, the choral theater of Plato's Republic arose spontaneously in my response to the bored looks on my students' faces when I was describing the tripartite soul. I needed to find a way for this idea to come alive.

In response to dreary, bored faces of my students in a course on political concepts, I decided to begin each new concept by having each student come up with an example of a dilemma they had faced with regard to that concept. We then used these dilemmas as concrete reference points for theoretical discussions of each concept.

The students were much more lively and engaged in the discussion, and the ideas held much more meaning once they were attached to the students' own lives. The students were also more able to critically question the theories when they could see how the theories did or didn't work in their own lives.

Similarly, if students are fully engaged in a significant topic that isn't on the planned schedule for the day, then I need to respect that natural inquiry and follow it through. Or if I sense their desire to do the leading, I need to let go of the control.

A recent experience in a class confirmed this wisdom for me. I had come in with a planned agenda for my final “Women and Spirituality” class, but the students seemed especially eager to get on with sharing their projects. I simply handed the class over to them, and the class as a whole was transformed by that empowerment.

Such mindfulness requires slowing down. Wonder gets shut down by moving too quickly. Needing to cover a lot of material in a short amount of time requires an instructor to use what Paulo Freire calls “the banking method”—shove it all into the students only for it to be regurgitated on exams and papers. This may be efficient, but I'm not sure that it is effective.

Take a walk with a two-year-old. You won't get very far very fast, but you'll experience the wonders along the way: the way leaves have different colors on each side, the way pebbles glisten in the sun, the way mud squishes when stomped on. Wonder in the university classroom requires a slower pace, too.

In any academic discipline, bringing questions arising from our
scholarly pursuits into the classroom enlivens our classes. When I tell students that something really has me stumped or puzzled—like trying to figure out the relationship between the authentic self and the constructed self—we can think about it together without their fearing my all-knowing judgment coming crashing down.

When we work through good, thought-provoking material together, we often come up with new insights. I don’t tell students I know all the answers. But when I offer what I think are some answers, the students seem open because they understand that I am speaking in complete openness, from my heart.

Wonder happens when we move beyond “the sterile preoccupation with things artificial” and touch the real questions and meanings of each others’ lives. Whether through play or free experimentation or deep listening or honest sharing—when we connect with universe in a real way, we open to wonder.

Endnotes
1 Rawls, 1970.
3 Huxley, 1946.
4 Bell, 1992.
5 Jennifer Reed, student paper, 1998.
7 Freire, 1970.

Works Cited