As biology teachers, we not only want to help students appreciate the fundamental concepts of living things, we want to convey a respect for life. Yes, we want to convey a respect for life. But how do we do teach respect for life?

Oddly enough, I think dissections may contribute significantly to students developing a deeper appreciation for life. This was certainly true in my non-majors class last spring. 95% indicated that they learned something valuable from our dissection and that included among this was a deeper respect for living things. I think this may be generally true when one foregoes the seek-and-destroy strategy of the dissections of yesteryear, and instead invites students (in a constructivist teaching mode) to explore, to find how things are connected, to feel and describe textures, to discover for themselves what they are made of. "Things are so much different than the way they are pictured and described in the textbook!" one student noted. "Diagrams give you just one side of the picture and sometimes even two. But with the dissection you get to see the organs in all dimensions, you get to look at it any which way you want and what's better is that you get to touch it. What I learned from the dissection is to appreciate what every single organ does for the body (me)." Students who never see the inside of a real animal, I fear, regard organisms--most notably themselves--as black boxes, or worse, as a virtual reality as thin as the screen it is projected on. I lead dissections because I want my students to develop a respect for life--and I believe they succeed. (My animals, by the way, come second-hand from completed research at the university.)

However we view dissection ourselves, though, our views should not eclipse those of students. Besides the principle of respect for life is another basic ethical principle that applies to all educators: respect for students. Students' views on dissection matter, regardless of the grade level involved. Indeed, in conveying a respect for life, we should be concerned that all students, not just those who voice some dissent, see there are important ethical issues surrounding dissection. So, Recommendation #1: Engage your classes in discussing the ethics of respect for life.

The first ethical lesson to convey is that merely voicing an opinion or expressing a position is ethically empty. Ethics is not about preaching or rotely following principles, it is about justification. Well reasoned arguments are no less central in ethics than they are in science. Recommendation #2: Engage your students in discussing reasons, not positions or platitudes.

The occasion of dissection may well be the very first time some students seriously consider the issue of respect for life. If so, we need to encourage their reflection. We also typically need to broaden the scope of their inquiry. Respect for life means respect for all life, not an anthropocentric or mammal-centric respect for "life-like-us."

We hear much fuss over cats and frogs and fetal pigs ("poor little fetal pigs"?). We hear very little objection to dissecting starfish, oysters, or worms. Why? No wellspring of objection has emerged from an increasingly popular lab on the survival rates of sowbugs in different environmental conditions, though wholesale death is assured for some populations. I have yet to hear a hue and cry over dissecting flowers. Are we effectively teaching respect for life?

Consider an ad for a fur coat sale (St. Paul Star Tribune). The animal rights activist will surely be outraged by the injustice of killing...
animals for fur. But shouldn't we be equally if not more concerned about the injustice of the disparity of income between the persons who can afford to buy these coats and the persons who merely want to? Shouldn't our attention be focused more on the news items that appeared just above this ad: shootings in South African townships; hostilities in Somalia; Iraqi weapons. What do we teach about respect for life?

Let's consider more challenging problems: insecticides. Raid, D-con, roach motels: how many of these do you suppose are used by opponents to dissection? Where is our respect for the life of roaches, ants, mosquitoes, ticks, termites, lice, or spiders? What does respect for life mean?

Pesticides also exist for the garden, for the cotton field, for the wheat crop, for the orchard, because how many of us accept eating apples with blemishes on them? We don't want to think about harvest losses or, worse, developing alternative agricultural methods and so we blind ourselves to billions upon billions of insect and plant deaths. Where is our principle of respect for life?

And lawns and golf-courses--a quintessentially American preoccupation: the merciless exploitation of grass, a living thing, to be severed on a regular basis and grown for the expressed purpose of being trampled. Not to mention the herbicides and widespread discriminatory murder of dandelions and other broad-leaf plants. Where is respect for life in lawns?

Plants remind us that living things encompass many kingdoms and that we need to open our horizons still further. What are antibiotics for, but to eradicate whole populations of bacteria? --Foot powder for athlete's foot, except to kill fungi? --And disinfectant house cleaners, save for the genocide of our Moneran and Protist cousins?

Finally, consider the most widespread abuse of animals in the U.S.: the raising in captivity of domesticated cats and dogs, not to mention hamsters, fish, and parakeets. It is not enough that we deprive them of their liberty, or breed them purely for our own enjoyment, apart from their native habitats. We as a nation feed them $3.2 billion dollars worth of canned food every year. Who else is not receiving food as a result? Far be it from me to suggest that human life is more valuable than a dog or cat, but I do believe that our respect for life needs reassessment when pets are overfed at the same time one third of the world's humans go hungry.

From my perspective, our culture owes itself some profound self-reflection on respect for life before we can worry about dissection in the classroom. Still, we can capitalize on dissection as a prime occasion to introduce this reflection to students, to spark some far-reaching ethical discussion, and to allow them to act on their conclusions.

If indeed dissection is the first time a student thinks seriously about respect for life, teachers should seize the opportunity to encourage and guide further ethical reflection. Much of that guidance involves helping students appreciate the scope of the question and setting it in an appropriate ethical context. Hence, Recommendation #3: When teaching the ethics of respect for life, introduce the broad spectrum of relevant cases: sources of human food, both plant and animal; medical research; recreational hunting and fishing; the domination of pets in homes and animals in zoos; insecticides, herbicides, disinfectant cleaners, and antibiotics. In this way, I think, we can begin to teach authentic respect for life.

Once we have taught ethics and respect for life, and nurtured students in developing their own well informed, well developed ethical positions, there is no more controversy. We simply invite students to express their views on dissection and then we respect them. The challenge for the teacher is to help students to mature ethically and to reach a consistent, complete, principled position. (see my January 1991 article, "Dissecting Classroom Ethics," in The Science Teacher for some tools and strategies).

If our focus is respect for life, we need to:

1. First, engage students in ethical discussion.
2. Next, guide discussion of reasons, not positions.
3. Lastly, establish the broad context and scope of the question of respect for life.