

**William A. Perry**

## **Different Worlds in the Same Classroom: Students' Evolution in Their Vision of Knowledge and Their Expectations of Teachers**

Reprinted from *On Teaching and Learning*, Volume 1 (1985)

I want to describe an orderly variety in the ways students in your classroom make sense -- including their sense of what you should be doing to be a good teacher. We labor among our students' individual differences daily, and yet the way these differences are categorized tends to mislabel the variables I have in mind. In the parlance of college pedagogy, the phrase "individual differences" usually refers to relatively stable characteristics of persons, such as academic ability, special talents or disabilities, or the more esoteric dispositions called "learning styles." We are, of course, expected to accommodate all such differences in our teaching, perhaps by broadening our teaching styles, and you may anticipate that I am about to add to our burden.

My hope, rather is to lighten our burden, or at least to enlighten it. The variations I wish to describe are less static; they have a logical order, and most students tend to advance from one to another in response to teachings or readings that impinge on the boundaries of their intelligible universe of the moment. These variables are therefore more fun to address, and in my opinion often more determinant of what goes out of our classrooms than all the other individual differences put together. At the very least, an understanding of them makes intelligible many of those aberrations of the pedagogical relation that we must otherwise ascribe to a student's stupidity or, more generously, to a clash of "personalities."

Let's start with one of the ordinary enigmas -- students' persistent misreading of examination questions. Perhaps "unreadable" would be a better term. We commonly struggle in staff meetings for nearly an hour over the wording of an essay question for the midterm. The choice of topic takes only five minutes. It is the wording of the intellectual issue we wish the students to address that takes the labor. At last the issue is stated clearly, concisely, and unambiguously. Yet, if the class contains a large contingent of freshmen, the blue books will reveal that a third of the students looked at the question to locate the topic and ignored all the rest of the words, so carefully crafted. It will seem as if these students read the question as saying, "Tell all you know about . . . ," and then did so, sometimes with remarkable feats of irrelevant memory.

Such evidence of misplaced diligence can be marvelously depressing, but we realize we should not be surprised. In their years of schooling what else have these students learned to suppose an examination question intends? Clearly we have an educational job ahead of us, and we undertake it with spirit in class and in office hours, student by student. We explain with patient clarity. The

students assure us that they understand and thank us profusely.

At midyears, however, most of our grateful beneficiaries dismay us by doing just what they did before. Our instructions were quite simple, and when intelligent students cannot keep a simple idea in mind, we can suspect them of being diverted by more pressing considerations. I choose here an example, extreme for this community, in the hope that stark simplicity may lay a foundation for more general observations.

A top student from a good rural school came to Harvard at a young age, possibly a year too young. Since he had won a regional prize in history, he enrolled in a section of Expository Writing that focused on writing about history. He consulted me in a state of some agitation, having failed in three attempts to write a satisfactory response to the assignment: "Consider the theory of monarchy implied in Queen Elizabeth I's Address to Members of the House of Commons in 1601." "Look," he says he doesn't want that. What is this 'theory of monarchy implied' stuff anyway? He says to read between the lines. So I try to read between the lines and - - huh -- there's nothing there."

The intellectual problem is not too obscure. The student cannot see a theory of monarchy because he has never been confronted with two. Until he sees at least two, a monarch is a monarch and who needs a theory? I was aware, of course, that his writing instructor had tried hard, but I decided said, "I can tell what she said -- all her main points. I've done it three times, longer each time. But he to try once more. We devised alternative theories together, but the more he seemed to understand, the more agitated he became. Then he complained that his mind had gone blank. I shall return later to this student's shock to help us understand the courage required of more advanced students if they are to hear what we are saying about the world. After all, why should two theories of monarchy be so terrifying?"

Such curious reactions are not limited to exceptional students. In Freshman Week over the years the staff of the Bureau of Study Counsel has asked entering students to grade two answers to an essay question. Again, fully a quarter of the class gives higher grades to the essay crowded with facts utterly devoid of relevance to the question. In response, we have tried to help these students see that college instructors consider relevance the sole justification for memorizing a fact. Accordingly, we try to teach them simple reading strategies, such as surveying for a sense of the author's purpose before starting to collect detail. Half the students catch on with enthusiasm; the other half accuse us of urging them to "cheat."

This brings me to the last enigma we need to share: the range of perception in students' evaluations of their teachers. Most evaluations are invited by rating scales. The computer will give the mean and the standard deviation. As a teacher I have never found the figures very informative, and on occasion I have ventured to inquire beyond them, inviting my students to write me anonymous "free comments." I expect a range of opinion; I would not want to please everybody. But nothing ever prepares me for the range I get. How can I possibly be the one who has "opened the world to me. Now I know what learning is about; and the rest is up to me!" -- and at the same moment "the most dishonest, hypocritical and careless teacher I've had the misfortune to meet -- and Harvard pays you !"

Can differences in "personality" explain all this? Every student who came to us for counseling seemed, if we listened long enough, to be attending a different college; each student enrolled in a given course was in a different course, and the instructor was an angel, a dud, and a devil. Was this variety common only among the fifteen percent of undergraduates whose distress brought them to us? We thought not, and we set out to inquire of some students who had expressed no need of our wisdom.

We asked half the freshman class to submit to tests measuring aspects of personality we thought relevant, and in May we invited representatives of all dispositions to come to tell us about their year. They responded enthusiastically. We soon learned not to ask them questions that imposed frameworks of sense-making on a conversation that we intended to be an opportunity for the students to inform us of theirs. The individual variety then exceeded our expectations, the students enjoyed it, and we parted in agreement to meet again next spring, and also in junior and senior year.

It was in this setting that the students rewarded us. As we first listened to them as freshmen, they interpreted their experience in ways that seemed harmonious with those traits of "personality" our measures had ascribed to them. But then, in sophomore year, to our astonishment, most of these students changed their "personalities" -- and did so again as juniors and as seniors. Each year they interpreted their educational experience through frameworks of assumptions and expectations that placed knowledge and learning, hope, initiative, responsibility, and their teachers, in new relations. Perhaps our original tests in freshman year had reflected not so much enduring bents of personality as temporary constellations of perceived relations. Gradually we came to see that these constellations through which the students made sense of their worlds followed one another in an orderly sequence. Finding that their current ways of making sense failed to comprehend the increasing complexities and uncertainties in their intellectual and social lives, the students "realized" (as they phrased it) that the world was other than they had thought; that only a new way of seeing and thinking could encompass the new set of discrepancies, anomalies, or contradictions. Each of these new realizations comprehended the old as the old could not encompass the new. This was development, a visible, even explicit broadening of the mind -- not simply change, but evolution.

We sensed that each step in this evolution involved a challenge. We had yet to realize the depth of these challenges, but we could see that some students refused, at one point or another, to take the next step. We went so far as to dub the sequence a Pilgrim's Progress and made a map of it, Slough of Despond and all. Every student, as we saw it, spoke from some place or "position" on this journey.

\* \* \*

But it is now time to enter your classroom. You, however, are late -- unavoidably, but conveniently for our purpose. The last thing you said, on Friday, was, "Next week we'll consider three theories of the economic cycle" (or the equivalent in your particular field). As restlessness sets in this Monday morning a conversation begins, and I am going to cast it in the mold of our Pilgrim's Progress. That is, I shall label the dramatic personae First Student, Two, Three, etc.,

letting each express in sequence the outlook from the several positions of our map.

By this device I hope not only to convey a sense of the order in the varied perceptions and expectations that await your arrival, but also to make it possible for you to imagine that each of the speakers might be one and the same student speaking from outlooks attained sequentially over a number of years -- perhaps in just the four years of college.

I have already mentioned the First Student -- he of the history prize. He saw me on Saturday. He sits near the door watching for you. He is too anxious to speak or even to think well. His despair about theories of monarchy has probably left him so mute that if he heard you mention "three theories of the economic cycle" at all, it only added boundlessness to his terror. His inability to understand the nature of knowledge as Harvard sees it has become less an epistemological problem than an ontological horror. If there are several theories of monarchy, why shouldn't there be infinite theories of monarchy? So is there such a thing as a monarch? Is the same true of all authority and so of all obedience? Of parents and sons? Of all meaning?

The camaraderie of the dorm might have carried him through this existential crisis, but this lad seems to lack the humor to become one of the boys. His is primitive shock, but we shall find in the class other, more sophisticated approaches to the abyss.

Several low-key conversations are now going on in the room. The voice of the second student -- I shall call him Two -- rises above the rest as he talks to his neighbor. "What's this rigmarole about three theories of the cycle anyway? Why doesn't he give us the right one and forget the bullshit?"

Someone laughs. "You're not in high school anymore, Joe."

"Yeah, I know. Here they give you problems, not answers, I see that. That's supposed to help us learn independent thought, to find the answer on our own. That's what he said when I asked him -- or I guess it's what he said, along with the rigmarole. OK, but enough is enough. We gotta know what to learn for the exam." Two's voice has become plaintive, almost desperate; there is silence as he pauses. "My roommate's in the eleven o'clock. He says his instructor really knows and really answers your questions. Maybe I should go ask her."

It is hard to portray Two's thinking without seeming to caricature it. Do I need to assure you that he exists? He has brought with him from years of schooling a clear epistemology. Knowledge, he learned early, consists of right answers, and there is a right answer for every question: e.g., spelling words, arithmetic problems, dates. These truths are discrete items and can be collected by memorization; so some people know more, others know less. ("Better" or "worse" are not applicable.) Teachers know these answers in their own fields. The answers seem to exist up there somewhere, and the teacher is privy to them.

In the stage setting of this epistemology the roles of the actors are clearly prescribed. The teacher's duty is to "give" the student the truth, the right answers, in assimilable, graduated doses. Two's duty is to "absorb" them by honest hard work known as "study." Then the teacher will "ask for them back" in the same form in which they were originally given. Two's responsibility is

then to re- present them unmodified and unabridged for the teacher's inspection.

The morals of this world are equally coherent. The teacher must not ask questions in a strange form -- "trick questions." That teachers often give problems to solve, withholding the answers which they already know, can at first seem an anomaly in this world, something to make sense of. As the First Student might say, "I think they're hiding things." Two has made sense of it, acknowledging that beneficent Authority should help us learn "independent thought": i.e., to find the answer for ourselves. Assigning problems therefore falls within the bounds of the moral contract so long as the teacher makes the problems clear and the procedures for solving them memorizable.

As student, then, Two's reciprocal moral duty requires him to collect truth through honest hard work, never by guessing. Right answers hit by guesswork (including "thought") are false currency, and when he accepts credit for them he feel guilty.

Freshman Adviser Perry (after November hour exams): How'd it go?

Freshman: Four 'A's.

Adviser (swallowing praise): How do you feel about that?

Freshman: Terrible. I didn't deserve any of them.

Two's logical corollary, of course, is that if he's worked hard he should get some credit even when he comes up with the wrong answer. The gods and similar authorities have always been bound by the rituals they have established for their appeasement. This myth, to the extent that Authority shares it, provides safety to the weak. The vital requirement of ritual is that nothing be omitted -- that it be complete. Since neglect of the smallest detail invalidates the whole, every detail is of equal import.

It is therefore of fundamental urgency for Two that you stipulate the nature of the ritual, particularly its length. He has been stopping you in the door at the end of class.

"You said three to five pages, sir. Does that mean four?"

Can Authority refuse to answer? "Well, whatever you need."

"Oh, then, four will be satisfactory?"

"OK, sure, if they make your point."

"Thanks, sir -- oh, will that be double-spaced or single?"

I have more than once found myself pressed to the wall and settling, to my chagrin, for "1200 words." And I have received them, tallied in the margin, the final entry a smug "1204."

Quantity and "coverage" are visible entities, making obedience palpable. "Organization and coherence" -- meaning the logical subordination and sequencing of relationships in the service of an overarching theme -- these are not yet visible to Two. A recent study has revealed that the students who think as Two thinks use "coverage" as their criterion for "coherence" as they write, sometimes going so far as to "organize" by putting "similar" details together. If you ask Two to rewrite his paper to improve its organization, he will therefore submit more of the same.

Two knows that there are Rights and Wrongs and a cold world outside of Eden. In Eden the only role is obedience; the only sin is arrogating to oneself the knowledge of good and evil (the power to make judgments). In the Bureau's class in strategies of learning, when we urge students to find the main theme of an article or chapter first (perhaps by starting at the end) so that they can judge the function of details, those who think like Two cry out, "Do you want us to be thrown out of here?" Two recognizes the college instructor who asks him to exercise his judgment as Serpent.

Two, then, construes the world (and teachers) dualistically. Along with right and wrong, he has come to see that some teachers know, and some do not. The truth is One and Invariable, yet teachers disagree about it. There is only one possible sense to make of this without disaster to Truth: just as there are right answers and wrong answers, so there are good teachers and frauds, beneficent teachers and those who are mean. ("My roommate says his instructor really knows.")

Two thinks in a noble tradition. A study of examination questions given to freshman at Harvard at the turn of the century reveals them all to be just the kind that Two expects questions to be. They ask for memorized facts and operations in a single assumed framework of Absolute Truth. It wasn't until midcentury that half the questions would require consideration of data from two or more perspectives. And surely today there are still many ways in which we confirm Two's vision.

Indeed, the meanings Two attributes to the educational world are so sensible -- and he has such ready categories for dismissing incongruities -- that his system seems almost closed. And if this system were as perfect as Locke portrayed it, then all knowledge, judgment and agency would reside out there in Authority, and the student's sole duty would be to absorb. Some Twos do indeed stay closed. Our Two, however, has unknowingly opened a door by conceding legitimacy to Authority's assigning problems instead of giving answers. Solving problems, he has found, is kind of fun, and he derives more satisfaction from doing than from memorizing. In arithmetic one can even check an answer for oneself to see if it's right or wrong. This temptation to agency and judgment is the first step in a path that will lead Two away from the safety he presumes to lie in obedience in Eden toward ultimate questions about the very nature of truth itself.

What is required next is for Authority to be allowed just a bit of legitimate uncertainty. Student Three supplies it: "Well, there may have to be some different theories for a while," she ventures; "after all, Ec. is sort of a new science and there's lots they don't know the answers to yet -- like some things in Physics even." By using the word "yet" she has legitimized present uncertainty without disturbing her vision of an orderly Laplacean universe out there waiting to be known, bit by bit. Three's assimilation of temporary uncertainty makes the system even more vulnerable. A little temporary uncertainty legitimizes a little difference of opinion. "Temporary" can now reveal itself to extend longer and longer, and uncertainties can appear in wider domains. The

mind is then likely to be overwhelmed by the sheer quantity of possibilities.

There are two Fours in the class, one a bit of a fighter, the other more trusting. I shall call them Four A (Adam) and Four B (Barbara). Four A makes sense out of the impending chaos by exploiting it. He "realizes" that the world, instead of being divided between right and wrong, is divided between those things about which right/wrong can be determined and those about which not even Authority knows. In this new domain of indeterminacy, where "Everyone has a right to his own opinion," he feels a new freedom. In this domain no one can be called wrong because the right is unknown. By implication all opinions are equally valid. This broad tolerance provides for peace in the dormitory before dawn. At the same time it means that Four A will feel outraged when you question his opinion, especially if you asked for it.

He says to Three: "Yeah, that's right. There's so much they won't know for a hundred years, so why only three theories? Anyone can have a theory, and if it's neat for them it's neat for them."

This ultimate individualism, when applied to the moral sphere, is of course absolute license, and since it is often spoken of as "relativism" it has given actual disciplined relativism a bad name. There is of course no relationship in sight, only solipsism: "My opinion is right because I have it." We called this view multiplicity, an awkward word we stole from Henry Adams. In any case, the view is not relative but absolute, just as absolute as the right/wrong dichotomy. What Four A has done is to save the dual character of the world by doubling it, leaving right/wrong on one side and if-I-can't-be-called-wrong-I'm-right on the other. He feels no need as yet to relate opinions to their supporting data and limiting contexts.

Three's interest in how to solve problems and her realization of temporary uncertainty are leading her to a curiosity about "how" we know, or if we can't know yet, how we develop an opinion tenable on grounds other than "It's my opinion." Four B (Barbara) has taken a course in literary analysis in which she has discovered that "What they wanted wasn't just an answer but a 'way,' a 'how'." I came to see that what a poem means isn't just anybody's guess after all. The way they wanted us to think was maybe special to that course, but you had to put all kinds of evidence together to build an interpretation and then try it out against others. So we'd end up with a few good interpretations to choose from, like three theories maybe, but a lot of others turned out to be nonsense -- at least that's how it was in that course. Maybe . . ."

Four B is on the brink. She has allowed a special case into the world of "right answers for credit." With this "way" she can be an agent in using relationships among data and contexts to generate interpretations. She realizes then that these interpretations may be compared to one another. Some few may appear most valid; others less so; others unacceptable. In the special case of this one course, Authority itself has introduced knowledge as qualitative. But a special case can be a Trojan horse. Its contents can burst forth to take over the whole fortress.

Four A (Adam) is entrenched in his efforts to expand the realm of indeterminacy at Authority's expense. If he is to discover a contextual qualitative world, he may do so more readily when the prodding comes from peers. In the bull sessions in the dorm a colleague more advanced than he may ask him, "Well, how do you substantiate that?" again and again until he discovers that

things relate and that he can relate them.

Five: "Hell, everything's like that -- like Barbie says, not just in one course. There isn't a thing on earth sensible people don't disagree about -- and if they don't today they will tomorrow! Even the hard scientists: look what Godel did to math! It's not like Adam says, 'When no one knows anything goes.' Just because there's no single certainty in the end and individuals will have to choose -- that's no reason to give up thinking. Maybe it's the reason to begin, I mean, you've gotta use all the analysis and critical thinking and stuff as advertised. Theories -- they aren't the Whole Truth anyway, they're just models like they say, some of them pretty good. So you've got to know how each one works, inside with its logic and outside with the world. It's like different geometries . . . like games really."

Two interrupts. "I can't follow all this bull you're all talking. Isn't anyone going to help pin him down? How can you study for an exam with all that crap you're talking about?" Everyone looks at Two, but no one responds. "Well, maybe it's me. I mean I can learn things, but I can't seem to do what people do around here, whatever it is -- interpret or something." He hangs his head.

Three attempts a rescue. "Well, I kind of agree. I mean he ought to tell us sooner or later. After all, there are right answers, right ways."

"Sure, there's rights and wrongs if you know the context," resumes Five. "It's all set by the context and the assumptions and all. Sure it gets complicated and some contexts are looser than others. Like in History and in Lit., there may be more different, defensible things to say. But still, idiot opinions, they're infinite. I thought everybody knew that."

Five "realized" all this only eighteen months ago, but he has so completely reorganized his view of the world, and in the process perhaps recatalogued his memory, that he has forgotten that the world ever seemed different from the way he now sees it to be. We wouldn't forget -- or might we?

\* \* \*

We should pause here. A rift has been revealed in the class, and the rest of the conversation will further our understanding of it. Five has taken us over a watershed, a critical traverse in our Pilgrim's Progress. On the first side of the watershed the students were preoccupied with the frightening failure of most college teachers to fulfill their assigned role as dispensers of knowledge. Even Barbara, who has mastered the initial processes of analytical, contextual, relativistic thought, has assimilated this form of thought by assigning it the status of an exception in the old context of What They Want. Five, in crossing the ridge of the divide, has seen before him a perspective in which the relation of learner to knowledge is radically transformed. In this new context, Authority, formerly source and dispenser of all knowing, is suddenly authority, ideally a resource, a mentor, a model, and potentially a colleague in consensual estimation of interpretations of reality. What-They-Want is now a special case within this context. As for the students, they are now no longer receptacles but the primary agents responsible for their own learning.

Not all teachers will fulfill these expectations, of course, but to Five, Six, Seven, and Eight their failures will not be so demoralizing -- or preoccupying. Most students will turn their attention to the implications of the new perspective: choosing among interpretations in their studies, making decisions in a relativistic world, and deciding how to make commitments to career, persons, values and to what they "know" in a world in which even Physics changes its mind. Some, perhaps lacking support or stuck in old resentments, will opt out by shrugging off responsibility.

As students speak from this new perspective, they speak more reflectively. And yet the underlying theme continues: the learners' evolution of what it means to them to know.

Another student now speaks to Five. 'Well, I've just come to see what you're talking about and it helps. I've begun to be able to stand back and look at my thinking -- what metaphors and stuff I'm using. Not just in my studies, I mean I find the same goes for people. I've begun to get the feel too of where the other guy is coming from and what's important to him -- huh, this sounds corny, but I get along better with most people.'

There's a silence, then Five speaks more tentatively in a lower voice: "Yeah, I can do this all in my head. I like learning the games and seeing what model fits best where and all. But I can't see how to make any big decisions -- there's always so many other possibilities. That's been a real downer. I list all the reasons for doing this and for doing that and all the reasons against and then I get depressed [laughs], so I go back to playing the games, 'cause that's something I can do well. I mean I get 'fine critical thinking' and jazz like that all over the margins of my papers and it keeps me going, but where to? I know it's I'm still trying to be too sure, but I can't let go, I don't want to just plunge."

A student is sprawled in the back of the room. "Games is right! So who cares? If they want independent thought, just give it to them. Always have an opinion, I say -- but don't forget to be 'balanced' and all that crap."

"Yeah," replies Six, "and then when you get to General Motors, what's good for them will be good for you. I was lost a whole year, felt like copping out like that plenty -- then thought what'll that be like when I'm forty? Now I've got it narrowed down some. I don't see how some guys seem to know from age two -- always knowing they'll be doctors. Did they ever have a doubt? Or will it hit 'em later? Like midlife crisis, huh? Anyway guys like me -- you gotta plunge, I think. I'm not quite there yet, but I can see there's different ways of plunging. You can jump in just to get away from the agony -- or you can do your thinking, and when your guts tell you 'this is it,' you listen. They're your guts. I mean you gotta plunge, in a way, because you know you can't be sure -- you're risking it -- but it'll be sort of a positive plunge. And once I'm in, I think everything else will fall in line."

"I did that last spring," says Seven, "and now that I'm getting deeper into things -- I'm in Bio -- it helps, feeds on itself I guess and I see it isn't narrowing down like I thought it would but spreading out bigger than I can handle. But I wouldn't say -- I wouldn't say."

"That it straightens everything else out?" The prompting comes from Eight. She laughs ruefully, "I got everything straightened out last spring. I'd gone round and round. There was premed I've

been in forever, I'd got more and more into Linguistics, and here was this guy I'd been going with who wanted to get married. So I thought all my thoughts and everyone else's and then one day told my parents, 'Sorry, Linguistics is it. I've really listened, but this has to be mine.' And then I let the guy go to the Amazon to study birds without me. Did everything straighten out? Like hell it did, and then it did, in a funny way. I mean there was the thesis in Linguistics; I still love that guy and don't want to marry him; I'm all wound up in this day care thing; my father's sick in San Francisco, and I met this intern who's taking care of him, and and and. Before, it seemed there was just premed or Linguistics, marriage or no marriage, so now I ought to feel worse, all divided up, but it's better. I find I even believe in some things, like they're really true." She pauses; no one says anything. "It's like with the thesis, somehow. Seems I hit on something new -- well, not new, just joining a couple of old procedures to tackle an old problem they'd never been used on before. My tutor says I'm really on to something -- we can't find anything wrong about it or too far out. I've never known something new to be mine like this before. And the feeling goes over into all the rest in a way, only I don't have my tutor to check me out. It's all bits and pieces with cracks in it, but I'm the center of something, a place from where I see things as I see them and all that jazz. Get things together -- that's it I guess, not getting everything I want but getting things together. Oh hell, maybe all that holds me together is irony."

After a moment, somebody laughs, "Nice try, nice try, but these verities seem a long way from those three theories of the economic cycle, whatever they are. Anybody done the reading?"

"Sure the reading's important," says Six, "but what we've all been saying does connect. What I want to know is what he does with those three theories. As a person, I mean, an economist-type person. I mean he seems to care about Ec. -- he's kind of zestful about it really. I want to know what he does with all this. Not just which he thinks is right but does he, or if all three are valid, then what? I don't think he's kidding himself, so what does he do? Let's some of us ask him for lunch someday [laughs]. See if he's for real."

At this point you hurriedly enter the room. Under your arm you carry a sheaf of forms from University Hall. They are questionnaires for students' evaluation of teaching -- an experimental form, it says, for trial at midterm. You have been assured that giving them out is purely voluntary.

\* \* \*

You -- and I -- are at "Nine" (so we hope), the farthest reach of our map. At Nine we have had time to realize that growth is not linear as the metaphor of our map implies, but recursive. We turn and turn again, and when we come across our own footsteps we hope it will be with the perspective of some altitude and humor. We have also seen that in the several areas of their lives, such as their work, politics, social relationships, family, or religion, people (including ourselves) often employ somewhat different levels of thought. As teachers, we often use these variations by finding the areas of students' most sophisticated thought and helping them to move by analogy into areas in which they are less advanced. Indeed, students, will often do so spontaneously.

But first, you may ask, "Am I supposed to do something about all this development?" I must state my premise. I do believe that the purpose of liberal education is to assist students to learn to

think the way Eight is thinking. The goals are stated in the catalogues of all liberal arts colleges. In these terms the development the students reveal is a Good, and we are enjoined to promote it. You may disagree, sensing that I am loading on you a trip into personality development; your responsibility, you may say, is to teach History. I hope you have sensed that this makes no difference. Students who have not progressed beyond the outlook of Three will be unable to understand what you as a modern historian want them to understand about History. To the extent that you wish your subject to become accessible to as many students as reasonably possible, the development we have been tracing remains a Good, and you have already been promoting it.

After all, the students who told us of this adventure were not taking a course in cognitive development complete with maps. They came to "realize" through the necessities of the intellectual disciplines as you taught them. This is not to say, however, that as teachers we have nothing to gain from a more explicit awareness of the steps in the students' progression. At the very least, an understanding of Two's expectations somewhat reduces the personal abrasion of his anger. Similarly, we can feel less assaulted by the outrage of Four when he feels we do not accept his "opinion." Beyond saving our energies, this awareness extends the possibility of our staying in communication long enough for seeds to take root.

Our outline of the successive ways in which students make sense throws some light on the potentials and constraints of this communication. It has been observed for two millennia that in any learning situation the learner requires the support of some elements that are recognizable and familiar. Then, if the experience is to be anything more than drill, the second requirement is a degree of challenge. In the decade since the publication of our scheme, a younger generation of teacher-researchers has spelled out the characteristics of learners at each position and traced the sequential changes in the conditions students experience as support and challenge as they progress. Two, for instance, feels supported by explicit directions -- supported enough to tolerate the challenge of being directed to read contradictory authorities. Looking back at the First Student we see him overwhelmed by challenge; he may make it through, but only with the community's support -- and time. Looking ahead, Five feels supported in being turned loose on the reserve shelf to find and write up an interesting problem, and can be challenged afterward by such a question as "And what did doing all that mean to you?"

This question of personal meaning leads toward the concerns voiced by Six, Seven, or Eight, who are searching to orient themselves in the profusion of legitimate possibilities they discovered in the relativism of position Five. They seek a way to make commitments to career, companions, values, and to make them wholeheartedly in a world in which knowledge and meaning are tentative. In the midst of this challenge they seek support in models, especially in their teachers. In providing this support, the best we can do is to let them see that we share with them the risks that inhere in all commitments. Then their sense of ultimate aloneness in their affirmations becomes itself a bond of community.

It is revealing to observe what happens when the teacher's and the students' ways of making sense are uncompromisingly disparate by two or more levels. If students Five through Eight are taught in the manner expected by Two, they may be bored or frustrated, but they understand what the teacher is doing. In the reverse of this mismatch, however, when students at the level of Two are taught in a manner that is good teaching only for Five and above, they panic and retreat.

Over the past twenty-five years the position of the modal entering freshman at Harvard has advanced from around Three to nearly Five. Yet many Twos and Threes and Fours are among us. Since we tend as teachers to address the more responsive students at and above the mode, we can be concerned about the remainder, who feel they are outsiders to the enterprise. I hope, if only for their learning, that they are fortunate in their advisers and their friends, and that their instructors, if opportunity permits, confirm the legitimacy of their bewilderment.

This concern has brought me to my last observation. What powers do we not have? Clearly (if we remember), we cannot push anyone to develop, or "get them to see" or "impact" them. The causal metaphors hidden in English verbs give us a distracting vocabulary for pedagogy. The tone is Lockean and provocative of resistance. We can provide, we can design opportunities. We can create settings in which students who are ready will be more likely to make new kinds of sense.

But what happens to the old kinds of sense? Where do yesterday's certainties go? Are Two and Three and Four the only ones in need of support? Five and Six and Seven and Eight (and you and I) have dared at each step to approach the abyss where the First student has stumbled into meaninglessness. For the advancing students a new world has opened from each new perspective, to be sure, but the mind is quicker than the guts. The students had invested hope and aspiration and trust and confidence in the simpler design of their world of yesterday. How long will it take them to dig out their vitality and reinvest it in the new, problematical vision? And all the while they are told that these are the happiest days of their lives.

The students do find their gains expansive and fulfilling, but does no one see the losses? If no one else does, can they? They can but wonder: "What is this cloud, this reluctance?" It can't be grief, can it? I believe that students will not be able to take a next step until they have come to terms with the losses that inhere in the step just taken.

In ordinary daily work, our understanding of how students see, whether we agree or not, legitimizes their being as makers of sense. If they make overly simple sense, we must ask them to look further. But by acknowledging that making sense as they used to do was legitimate in its own time, and even a necessary step, we empower them to learn new and better sense. Our recognition is most encouraging in moments when the student is moving from one level of sense-making to another. When the transition happens right in front of us, we will see the eager realization and then, perhaps very shortly, the shadow of the cloud. We say something like, "Yes, you've got the point all right . . . but we do wish it made things simpler." The most heartening leaven for the mind can come from just such a brief acknowledgment as this.

## References

Copes, Larry (compiler). Bibliography and Copy Service Catalog: Perry Development Scheme. SIP. Paul, MN (10429 Barnes Way, 55075), ISEM, Oct. 1984.

Knefelkemp L.Lee and Janet L. Cornfeld. "Combining Stages and Style in the Design of

Learning Environments." Address to American College Personnel Association, 1979. Reprints obtainable from author at College of Education, University of Maryland, College Park, MD 20742.

Perry, William G. (and associates). *Forms of Intellectual and Ethical Development in the College Years*. NY: Holt, Rinehart and Winston, 1970.

Perry, William C., "Cognitive and Ethical Growth: The Making of Meaning" in Chickering, Arthur (editor). *The Modern American College*. San Francisco: JosseyBass, 1981.

Perry, William G. "Examsmanship in the Liberal Arts: A Study in Educational Epistemology." Harvard College, 1963. Reprints available at the Harvard-Danforth Center. Also reprinted in Zeender, Karl and Linda Morris (editors), *Persuasive Writing: A College Reader* (NY: Harcourt Brace Jovanovich, 1981).

**WILLIAM G. PERRY** has taught in school and college, and, as the first Director of the Harvard University Bureau of Study Counsel, has listened to students for thirty-four years. He is the author, with his associates, of *Forms of Intellectual and Ethical Development in the College Years*.

Copyright © 2002-2004 by the President and Fellows of Harvard College. Permission is granted to non-profit educational institutions to reproduce this document for internal use provided that the Bok Center's authorship and copyright are acknowledged.

**Derek Bok Center for Teaching and Learning  
Harvard University** Science Center 318  
One Oxford Street  
Cambridge, MA 02138-2901  
Voice: (617) 495-4869 \* Fax: (617) 495-3739  
<http://bokcenter.harvard.edu>