
**Professors in Space and Time: Four Utilities of a New Metaphor and Developmental Model for Professors-as-Teachers**

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The author presents a new developmental model and metaphor that describes how professors may develop as teachers throughout their careers. He elaborates the significance of the model with regard to its potential to benefit realms of higher education practice that concern college teaching. The discussion concentrates on four applications of the new theory in four specific domains: (a) enhancing communication among, and with, faculty about teaching; (b) promoting development of professors' teaching abilities; (c) improving assessment of professors' teaching effectiveness; and (d) contributing to research on teaching and learning.

I once took a course from a professor who, day after day, week after week, month after month, read from his notes. (They were yellow, too, although in this case because of the university’s choice of tablet stock rather than old age.) The professor was totally absorbed in himself, his subject, and his handling of that subject. He could not have cared less about me, the learner. But I loved it. Somehow, the experience transformed me in a way that I valued then—and still do now. I was a nascent scholar, and I wanted with all my heart and soul to be a mature one. Other students withdrew from the course in time to get a full refund. “If I wanted to take dictation, I would have become a secretary,” one student remarked to me en route to the registrar’s office. But the professor’s passion for his scholarship and his subject, the depth of his knowledge and his interpretation, the challenging standards of thought and inquiry that he displayed...
inflamed me with energy, ideas, and the desire to know more about the subject and to become more accomplished as a knower.

I should note that I have been influenced importantly by learner-centered teachers as well. However, my point in telling this story is to ground two basic observations: (a) “good” teachers—those who have had a major impact on us as students of a particular subject, as learners of any subject, or as human beings in general—come in virtually all forms; and (b) one person’s “good” teacher may be another person’s “bad” teacher, and vice versa. Existing developmental models, which often provide informing structures and metaphors for instructional and faculty development efforts, do not seem to accommodate these two critical and undeniable facts.

Notwithstanding certain theorists’ arguments to the contrary, these models and metaphors seem to promote each developmental position (or “level,” the word often used by those who apply the models) as more functional (implicitly better) than preceding levels (Gilligan, 1982; Kegan, 1982; Kohlberg, 1984; Loevinger, 1976; Perry, 1970). However, this notion often flies in the face of our experiences as learners. The teachers who have had a significant, positive impact on us represent a wide variety of developmental positions or teaching perspectives.

In this article, I describe a new developmental model and metaphor that addresses this problem by framing a progression of developmental perspectives employed by professors-as-teachers while explaining why someone can experience a “good” teacher who comes from any of these different perspectives. Following a brief review of the literature and a description of the metaphor and the model, I focus on the utility of the model and metaphor in four domains: (a) communication among, and with, faculty about teaching; (b) development of professors’ teaching abilities; (c) assessment of professors’ teaching effectiveness; and (d) research on teaching and learning.

**Literature Review**

The model and the literature that provides context and support for the model have been explained and documented in detail elsewhere (Robertson, 1999a; also see Robertson, 1996, 1997, 1999b, 2000, 2001, in press). Existing models of professors’ perspectives on their teaching either are not developmental, that is, they do not describe a typical sequence of teaching perspectives through which professors continue to develop throughout their careers (Adelson, 1962; Axelrod, 1973; Baker, Rouche, & Gillett-Karam, 1990; Mann et al., 1970; Pratt, 1992; Pratt & Associates,
Professors in Space and Time

1998); or, if the models are developmental, they do not include the Systemocentric perspective that the model featured in this article introduces (Pratt, 1989; Ralph, 1978; Sherman, Armistead, Fowler, Barksdale, & Reif, 1987). The model is informed by a close review of over 200 scholarly books, monographs, chapters, and journal articles that address professors’ perspectives on their work as teachers. I have taken care to consider as many different perspectives as possible, including a wide variety of gender, race, class, and sexual preferences, many of which are often neglected in general developmental models. In addition, faculty perspectives were included from a complete array of Carnegie institutional classifications: community colleges, liberal arts colleges, master’s-granting colleges, and doctorate-granting universities. Based on a review of the pertinent literatures, the model presented here appears to be the most comprehensive developmental theory of professors-as-teachers to be introduced into the published scholarly record. I now turn to a metaphorical expression of the model.

The Metaphor

Imagine that professors’ perspectives on their work as teachers were represented as geometric shapes that occupy any or all of three possible spatial dimensions. The degree of development of a professor’s teaching perspective would be expressed by both its number of dimensions as well as its extent within those dimensions. This idea of existing in one dimension but being aware of other dimensions is the guiding concept in E. A. Abbott’s 1884 novel Flatland. For example, some professors might be represented as one-dimensional lines of varying length existing in any one of the three possible dimensions (see Figure 1). Lines existing in one dimension are unaware of lines existing in different dimensions except when those lines intersect them, and then the lines in the other dimensions become diminished to points with no dimensions whatsoever. Other professors might be represented as two-dimensional rectangles of any imaginable shape—equilateral, not equilateral, large, small (see Figure 2). A rectangle existing in a different plane from another rectangle when intersected by that rectangle is reduced by its perceptual processes to one-dimensional lines. Still other professors might be represented as three-dimensional blocks, again, of any conceivable shape—isometric, not isometric, enormous, tiny (see Figure 3). When these blocks cross other lines or rectangles, they perceive those other shapes in all of their dimensions—as lines and rectangles, not as points and lines, respectively. However, if a line is long or if a rectangle is large, the block may not
Figure 1
A Metaphorical Representation of *Egocentrism*
(one-dimensional, teacher-centeredness)

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Figure 2
A Metaphorical Representation of *Aliocentrism*
(two-dimensional, learner-centeredness)
be able to experience all of it, depending on the extent of the block within that line’s or that rectangle’s dimensions. Now put a healthy number of these lines, rectangles, and blocks—say, 700-800—in a contained space and call that space a university and these objects the faculty. Further, add the fourth dimension of time, allow the shapes to move around conducting their daily business, and there we have it—a metaphorical rendering of the typical context in which faculty interactions about college teaching occur (see Figure 4).

**The Model**

Development can be described as a process of transformation that results from adding something new and integrating it with what already existed to form a new whole of greater functionality (Robertson, 1988; see also Gilligan, 1982; Kegan, 1982; Kohlberg, 1984; Loevinger, 1976; Perry, 1970). This process of addition and transformative integration that is called development can occur at different scales. Two basic developmental scales exist: (a) development within a person’s perspective and (b) development of the perspective itself. In the first scale, the person elaborates an existing perspective and experiences developmental trans-
formations within that subjective reality without changing his or her fundamental way of constructing the world. In the second scale, the person transforms his or her fundamental way of constructing the world.

The two scales may be used to describe, respectively, how professors-as-teachers may elaborate their basic approach to their work as teachers or how they may transform their approach to teaching itself. Returning to the metaphor, professors-as-teachers can develop within a particular dimension, or they can add another dimension altogether. This explains why teachers who are at different "levels" of development can be highly effective. Teachers who have added dimensions to their perspectives on teaching but have not developed much within those dimensions may not be as effective as those who have not added dimensions to their perspectives but have worked hard to develop within their perspectives' existing dimensions. In other words, learner-centeredness itself is not necessarily better than teacher-centeredness; some teacher-centered professors may be much more effective at stimulating learning in students than some learner-centered professors.
What are the basic developmental dimensions? The data from research on college teachers and college teaching suggest there are three dimensions: (a) Egocentrism, or teacher-centeredness; (b) Aliocentrism, or learner-centeredness; and (c) Systemocentrism, or teacher/learner-centeredness (Robertson, 1999a). The literature indicates that professors tend to begin their college teaching careers focused on their own concerns, particularly their own content mastery (Boice, 1991a, 1991b, 1992, 1993a, 1993b; Fink, 1984; Finkelstein & LaCelle-Peterson, 1992; Olsen & Sorcinelli, 1992; Ronkowski, 1993; Sorcinelli, 1988, 1992; Sorcineli & Near, 1989; Turner & Boice, 1987; van der Borgert, 1991; Whitt, 1991). Then, if professors continue to develop as teachers, they add to and integrate with their teacher-centered concerns (Egocentrism) an interest in the inner experience of student learners, their learning processes, and the best ways to facilitate those learning processes (Aliocentrism). Finally—if, and only if, professors continue developing as teachers—they add to and integrate with their teacher-centered and learner-centered concerns attention to their own inner experience as unique persons who occupy the learning facilitator role; the way in which that inner experience interacts with the inner experience of the unique persons who occupy the student roles; the complex, dynamic systems that emerge from these intersubjective relationships; and the nature of their specific teaching and learning ecologies (such as courses) that these intersubjective systems comprise (Systemocentrism). In short, the Systemocentric perspective focuses on managing complex, dynamic, psycho-social-physical systems (as well as on the teachers’ content mastery and the students’ learning processes). Development involves adding and integrating, not subtracting and replacing (Robertson, 1988). In this respect, professors add and integrate, first, learner-centeredness with teacher-centeredness; then teacher/learner-centeredness with learner-centeredness and teacher-centeredness. Professors do not necessarily all begin their careers in teacher-centered Egocentrism, and they do not necessarily add dimensions to their teaching perspectives in this particular sequence. However, the data suggest strongly that they tend to follow such a pattern (Robertson, 1999a).

Four Utilities of the Model

This model and its metaphorical expression have important utilities in at least four domains: (a) communication, (b) development, (c) assessment, and (d) research.
Having been the director of two university teaching and learning centers, I am interested in promoting collegial conversations among professors about their teaching. Before taking this position, I taught happily at colleges and universities for over 25 years and engaged in discourse with other college teachers about teaching. Hardly have I held a conversation when I have not been struck by how different are professors' conceptions of college teaching and how difficult is this act of communicating about it. Teaching is not just apples and oranges; basic approaches to teaching seem to constitute a complex fruit salad, with a variety of nuts thrown in for richness. One professor sees teaching as the dissemination of knowledge; another sees it as the facilitation of learning. One professor construes teaching as focusing on teacher performance; another construes it as focusing on student performance. Even though we know that not everyone sees the world in the same way that we do, often we talk to each other about teaching as if we all mean the same thing by it. The model and metaphor that I propose provide a means for understanding the subjective realities of professors with regard to their teaching and, thereby, contribute a framework for effective communication.

If I can determine the basic dimensions of a professor's teaching reality, then I can speak to that professor along those dimensions. I also can appreciate that another professor may possess dimensions that I do not (and may not want to). Further, I can understand that I may have developed further within a particular dimension than another professor and can tailor my remarks so that they address the part of that dimension with which that professor is familiar. On the other hand, I can appreciate that another professor and I may share the same basic dimensions but that he or she has developed further in one or all of them—or in different parts—and therefore talks about teaching in a way that I grasp generally but not always entirely. For example, I may share a two-dimensional, learner-centered perspective (Aliocentrism) with another professor. However, I may be exploring psychological characteristics of the learning process and individual learners (for instance, learning styles) and their pedagogical implications. Thus, I may not have added—as has the Aliocentric professor with whom I am speaking—attention to students' characteristics with regard to sociological variables such as gender, class, and race/ethnicity and how those considerations impact my teaching. Alternatively, we may share an Aliocentric focus toward learners but not overlap at all in terms of our development within the learner-centered dimension. I may focus entirely on psychological variables, and the other professor entirely on sociological ones. We both see teaching as
facilitating students' learning, but we approach it quite differently: "What's your Myers-Briggs Type?" versus "What's your gender, class, race positioning?" For either one of us to incorporate the other's interest would constitute development within the learner-centered dimension. Drawing on a comprehensive model (and metaphor) that describes and gives order to all of these perspectives greatly facilitates the communication process.

**Development**

The model not only describes other frames of reference; it also identifies potential additions that will need to be integrated in order for development to occur. In other words, it facilitates creating a developmental agenda and thereby helps to clarify specific developmental objectives. For example, the typical progression of developmental perspectives—Egocentrism (teacher-centeredness), Aliocentrism (learner-centeredness), and Systemocentrism (teacher/learner-centeredness)—describes in broad terms the awareness that professors-as-teachers need to add to and integrate with their perspectives if those perspectives are to develop. Teacher-centered professors need to add and integrate serious concern with the lived experience of the learners in the courses they teach. They must add this concern to their interest in their subject, their own learning of that subject, and their presentation of their learning of that subject. The teaching perspective that results from this development (addition plus transformative integration) views teaching as facilitating learning instead of disseminating, imparting, or transferring knowledge.

Developmental agendas need not involve adding and integrating whole new dimensions to one's teaching perspective; they also can exist within dimensions. For example, learner-centered (Aliocentric) professors wishing to develop within this dimension may eventually want to learn about learning theory. Defining teaching as facilitating learning rather than as disseminating knowledge naturally creates the need for an explicit theory of learning. This theory creates the conceptual framework for defining what one is trying to facilitate as well as explaining the process whereby it occurs. This conceptualization of the learning process then becomes the basis for instructional design. In learner-centeredness, learning theory—the understanding of that which the professor is trying to facilitate—should drive the design of courses and class sessions. One's learning theory should be the horse; one's instructional design should be the cart; and, of course, one should put the horse before the cart.
The learning process—the developmental agenda in the learner-centered, Aliocentric dimension—may include a focus on the pedagogical implications of learner characteristics. These characteristics may involve three interrelated aspects of learners: (a) physical (for instance, brain functioning, learning disorders, physical gifts and challenges); (b) psychological (for instance, learning style, personality type, biography in general, learning biography in specific, learning agendas, learning strengths and weaknesses, transference patterns, cognitive development, psychosocial development); and (c) socio-cultural-historical contexts (for instance, work, family, and friendships networks; gender/race/class profile; spiritual community; generational positioning). The developmental agenda within the Aliocentric dimension comes from attending to the nature of the learning process (that which the teacher is trying to facilitate), the nature of learners (those in whom the teacher is trying to facilitate the learning process), and the pedagogical implications of both. As professors develop within this dimension, they add and integrate knowledge and skills from among these topic domains.

Finally, the model and metaphor assist us—whether we be professors, faculty developers, or administrators of the curriculum—in understanding the amount of transformation that a specific developmental project involves for a particular professor, as well as the amount of concomitant resistance. Adding a whole new dimension to a professor’s perspective tends to be a more disruptive transformation than adding a new approach within a dimension. For example, having one’s approach to one’s subject transformed (for instance, a transformation within teacher-centered Egocentrism) may disrupt one’s stability a great deal. However, for a teacher-centered (Egocentric) professor to add and integrate serious attention to students’ phenomenological experience to his or her perspective probably would be even more disturbing. Development is disruptive and disturbing; we who promote development must never forget that. The model helps us to estimate the magnitude of the disruption and, relatedly, to anticipate the strength of the resistance. “Everybody wants to be somebody; nobody wants to grow,” according to a saying attributed to Goethe. Growth as a teacher is a lot of work. The model helps us to estimate how much.

Assessment

The increasing interest in assessment in higher education has as much to do with accountability as it does with improvement. We always must be clear about which aim we are serving, because evaluation and devel-
opment mix as poorly as oil and water. Whether assessment is for purposes of evaluation or development, however, the model can help to provide important context by situating faculty members within their own teaching frames of reference and by valuing each of those frames of reference. We must remember these two stubborn facts: (a) Teachers who have influenced us significantly and positively come in many forms; and (b) in any particular situation, someone who is a good teacher for one may be a bad teacher—or at least not a particularly good teacher—for another. Whether the purpose is to assess faculty for purposes of evaluation or development, there seems to be no legitimate basis for imposing an absolute standard, profile, or template of teacher excellence and then comparing real faculty against that monolithic abstraction in order to evaluate them or identify areas for their improvement.

I am not alone in taking this position (see, for instance, Palmer, 1998). In order to generate useful assessment data, however, some frame of reference does need to be in place. One useful frame of reference could come from professors themselves. For example, if professors viewed their work as teachers from a teacher-centered, Egocentric perspective, then the assessment could be rigorous but restrict itself to that dimension. Within this perspective, professors are likely to see teaching as the dissemination of knowledge and their primary role to be master learner who brings back to students significant findings from the frontiers of subject knowledge; who organizes that knowledge in a logical progression for students; and who delivers that knowledge via lectures to students, who are then tested on their mastery of it. But how well are these teacher-centered professors doing these things? Are they really on the cutting edge of their fields? Have they really continuously reworked their course content to incorporate their own new learning? Have they really attended to their lecture skills? Do they really give serious and ongoing thought to their methods of evaluating student mastery of the content they present?

If professors’ teaching perspectives were learner-centered, Aliocentric approaches, then there would be two dimensions along which to assess their work as teachers. If their perspectives were teacher/learner-centered, Systemocentric approaches, then there would be three dimensions for assessment. The point is that teachers’ performance can be meaningfully assessed in their own frame of reference without imposing anyone else’s perspective on them. Assessment data should be collected from a variety of viewpoints, but one of those viewpoints should be the professors’ own. The model and its metaphor provide a valuable tool for reviewers of professors’ work as teachers, whether the reviewers
be peers, administrators, or faculty developers, and whether the work that they are reviewing involves statements of teaching philosophy, teaching video tapes, or live classroom performances. Also, importantly, the model and its metaphor provide a structure and vocabulary for faculty to use as reflective practitioners in assessing their own work as teachers.

**Research**

The model and its metaphor offer an important new sampling frame—whether the sampling be random or purposive—for research on college teaching and learning. For example, suppose we want to explore the relative effectiveness of teacher-centered versus learner-centered professors-as-teachers and that we set about creating comparative samples of "knowledge disseminators" versus "learning facilitators." The model and its metaphor encourage us to remember that development of professors' teaching perspectives can occur by adding and integrating *novelty within dimensions* of these teaching perspectives as well as by adding and integrating *whole new dimensions* to them. In other words, one-dimensional (Egocentric) professors-as-teachers who have continued to develop in that dimension may be exceedingly complex in that dimension and may be represented metaphorically by a line of great length. If they have not developed much, their teaching may be one-dimensional and quite simple, and it may be expressed metaphorically by a short line. Similarly, two-dimensional (Aliocentric) teachers may represent any combination of development in their two dimensions, and the perspectives of these professors may be rendered metaphorically as rectangles of any conceivable shape.

The comparison of one-dimensional, teacher-centered, Egocentric perspectives and two-dimensional, learner-centered, Aliocentric perspectives produces results of greater utility in accordance with the increasing degree to which we understand just what it is we are comparing. Do the samples include professors-as-teachers of similar development within the dimensions of their perspectives on teaching—say, long lines with large rectangles (or even squares) or short lines with small rectangles? That is, are we holding the development within dimensions constant and looking only at the relative effect of additional dimensions? Or are we comparing professors who have developed their teacher-centered, master-learner skills extensively with professors who have done little continuing work on their master-learner qualities but have developed extensively their knowledge of learning processes and learner characteristics—comparing long lines with long, thin rectangles? That is, are
we examining the relative effect of extensive development in different preferred dimensions?

Many other combinations are possible with the model. The model and its metaphor provide an invaluable framework for constructing samples that address sophisticated conceptual comparisons with some precision. The model helps us to avoid falling prey to unwitting bias that favors the development of new dimensions over development within existing dimensions (for example, presuming that two-dimensional learner-centeredness is more effective than one-dimensional teacher-centeredness without regard to the extent of development in each dimension).

Conclusions

The model and metaphor that I propose encourage those who are interested in improving college teaching to do four things: (a) to attend to professors' perspectives on teaching (rather than merely to professor behavior); (b) to see those perspectives as having any number of three possible dimensions—teacher-centeredness, learner-centeredness, and teacher/learner-centeredness—expressed metaphorically as spatial dimensions that exist in time; (c) to view the development of professors' perspectives on teaching as occurring potentially within a dimension or by adding a whole new dimension—for instance, elaborating a perspective by transforming something within it or transforming the perspective itself; and (d) to value development at either scale (within or across dimensions). Doing these four things and using the model as a conceptual tool holds the potential for significant contributions toward greater teaching effectiveness in at least four critical domains: communicating about teaching, developing teaching, assessing teaching, and researching teaching. One may recall Confucius's familiar aphorism: "I hear and I forget. I see and I remember. I do and I understand." I invite readers to use the model and metaphor and see for themselves whether or not it deepens their understanding of how real professors go about their work as teachers. From such a deepened understanding comes a greater capacity to help ourselves and others to become better teachers.

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