

his behavior in line by studying for a second degree in education and shifting paradigms from "other-centered" (what he perceived society values) to that which he values.

A powerful shift occurred for another young man when he stated, "I wish we could go back to the 1950s. It was so easy then because everything was fair before diversity. Men were hired simply on their qualifications." This statement resulted in a class discussion on hiring practices throughout history. The students decided that hiring has never been fair, even for white males. In Boston, getting a job in the past may have required a degree from Harvard or being a member of the correct yacht club.

The skills taught in this class help students to cope with today's job market. Covey's "be proactive" is analogous to the effort needed to leave the Orphan archetype. In the last two years, hiring has been slow and students are quick to fall into Orphan, blaming others for their predicament. An intense class discussion occurred when the students were asked to list their attitudes about the job situation and then to identify the archetype that represented their behavior. They realized that blaming professors, women, minorities, and equal opportunity for the lack of a job is very low-level, orphan behavior. They spent time listing proactive behaviors and ways to solve the problem. In the spring of 1994, this proved to be the most emotional exercise of the semester, and correspondingly, the most useful in terms of applying the course material.

The student response to this course has been consistently bimodal for the last four years. About 80% of the students love it absolutely and wish that they had learned these concepts as freshmen. When I see these students several years after graduation, they report that it remains one of the most influential courses they took in engineering college—while they long ago forgot differential equations, they continue to look at their boss and ask, "I wonder what his/her assumptions are? What is his/her paradigm?" Course comments include: "Great!! The most important thing I've seen in four years as a ChE student. Should be supported and valued by other professors," and "Excellent, great topics, really made me start to think," and "The class I feel should be a two-credit class that is required for every engineer to take each year of his engineering program and should include stress management and more role playing."

The remaining 20% of the students remain skeptical to the end. They see no relationship between social science and engineering. They are so immersed in their own paradigms that they simply cannot shift. They seem to believe that the workplace is just like a classroom—"do your homework and get an 'A'" becomes "solve the technical problem and earn a promotion." Sample comments from these students include: "It introduced me to new topics, but didn't teach me anything," and "It was alright. Didn't learn anything I really need to know. Liked the teacher."

Summer 1995

ChE letter to the editor

PHASE BEHAVIOR CASSETTES AVAILABLE

Dear Editor:

In the late 1960s, I prepared some instructional films (remember films?) on phase behavior (both single component and binary) with the help of the National Science Foundation and the Chevron Oil Field Research Company.

These films have now been transferred to video cassette and are available at cost from the Department of Chemical and Fuels Engineering, University of Utah, Salt Lake City, UT 84112.

For ordering information and a written description of the content of the films, please call or write

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Interestingly, in the eight years that I have taught various versions of this course, fewer than a handful of women have been in the skeptic group. The women are either inherently interested in social issues or are so tired of being the 'out' group that they hunger for validation of their obviously different paradigms. Applying the concept of paradigms to issues of race and gender in the workplace has resulted in useful class discussions. Today, white males are often at a loss as to what behaviors are problematic and what behaviors are perfectly acceptable. Giving both women and men the skill to shift paradigms and shift belief structures will allow them to be more successful at work.

In conclusion, we are offering a course that broadens the definition of communication. It trains students to communicate successfully at the interpersonal level in the workplace of the 1990s. They should leave with a vision of the workplace as a fluid system filled with people who are constantly growing and changing. A corporation is a wonderfully diverse stew—teams peppered with different points of view are potentially the most satisfying and innovative. As a result of including new communication skill material, our "minority" students leave more prepared to be successful in their careers and our "majority" students can claim greater knowledge of diversity issues and interpersonal skills.

REFERENCES

1. Kuhn, Thomas S., *The Structure of Scientific Revolutions*, University of Chicago Press, Chicago, IL (1970)
2. Covey, Stephen R., *The 7 Habits of Highly Effective People: Restoring the Character Ethic*, Simon and Schuster, NY (1989)
3. *Managing Interpersonal Relationships*, Wilson Learning Corporation (1989) □