FACULTY BEHAVIOR IN LOW-PARADIGM VERSUS HIGH-PARADIGM DISCIPLINES: A Case Study

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The notion of academic disciplines being characterized as high- or low-paradigm technologies was developed by Lodahl and Gordon from Kuhn's concept of a paradigm. Using this concept, the voting pattern of high-paradigm faculty (chemistry, physics, mathematics, and engineering) was compared to low-paradigm faculty (sociology, political science, history, and education) concerning a controversial campus issue to liberalize curriculum choices for students. It was found that high-paradigm faculty were not willing to grant students more latitude to select courses for degree requirements, while low-paradigm faculty members were in favor of giving students more latitude to select academic courses for degree requirements. The unique aspect of this study is that faculty behavior, as described in an actual case study, corresponds to theoretical positions supported by questionnaire data.

Key words: faculty characteristics; faculty behavior

Using Thomas Kuhn's (1962) concept of a scientific paradigm, Lodahl and Gordon (1972, 1973) presented evidence, through questionnaire data, that the social sciences (sociology and political science) may be classified as being in a state of low technological development and the physical sciences may be defined as being in a relatively high state of technological development. Sociology and political science are defined as low-paradigm disciplines and physics and chemistry are classified as high-paradigm disciplines according to Lodahl and Gordon's (1972) analysis.

These authors reported that low-paradigm disciplines do not have as

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much agreement among their members over scientific goals and means when compared to faculty in high paradigm disciplines. Social scientists were found to have more difficulty agreeing on course and degree requirements than physical scientists. "Social scientists operate in a much less predictable and therefore more anxious environment than physical scientists" (Lodahl and Gordon, 1972, p. 70). Physical scientists reported more agreement in their fields than social scientists. There seem to be differences between disciplines regarding how faculty members view teaching, research, and student-faculty relationships. These differences have been reported in detail by Williams, Blackstone, and Metcalf (1974) and Ladd and Lipset (1975).

Presumably high-paradigm faculty know what is important in their field, and they are able to come to a consensus regarding basic requirements in the curriculum. Gaff and Wilson (1971) support this notion from questionnaire data mailed to 1,559 full-time faculty at six colleges and universities in three states. According to Gaff and Wilson (1971), those who teach science and professional subjects (law and medicine) adopt a "body of knowledge" approach and believe, for instance, that only a physicist knows what a physics curriculum should include. Gaff and Wilson (1971) like Lodahl and Gordon (1972; 1973) believe that the high-paradigm disciplines are highly developed compared to low-paradigm disciplines. In low-paradigm disciplines there is relatively more anxiety, and the faculty may have difficulty establishing a consensus on degree requirements. A test of these assumptions has been made by analyzing faculty behavior at a large, land-grant university in the mid-South, which will remain anonymous for the purposes of this study. In 1971 the faculty senate was required to approve or disapprove of new degree requirements. The new degree requirements allowed students considerable latitude to select courses they wished to take.

During the late 1960s and early 1970s higher education students in the United States exerted pressure on administrators and faculty for more rights and liberal interpretations of academic rules. There was considerable pressure on administrators and faculty to review policies concerning: curfews, student representation on key committees, student evaluation of professors, and academic requirements in general. At the university being described in this study a protracted debate took place among the faculty and students concerning a new degree, the Bachelor of General Studies. This internal controversy took place between September 13, 1971 and April 10, 1972. The Bachelor of General Studies allowed students to have considerable discretion concerning the areas of study they could take. While the traditional Bachelor of Arts degree required course work in a language, the natural sciences, and