Teacher Types, Workplace Controls, and the Organization of Schools

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The theory of workplace control in American high schools presented in this article is based on the assumption that the school workplace contains potent systems that control the everyday work attitudes and conduct of teachers. The theory posits the formation of teacher types, each comprising distinctive attitudes toward work and behavior, as the link between control systems and the way teachers conduct their work. Four control systems and corresponding modal teacher types are described. These systems are treated as consequences of variation in the size of a faculty and the power of a school's clientele. Data from interviews and observations in 13 high schools of widely varying size and client power show that teacher-type orientations, once formed, have substantial trans situational stability. A further HLM analysis of data from teachers' responses to a questionnaire provides partial support for the theory.

In this article, we present a theory of the control of teachers' work and report evidence from a study of 13 high schools in the United States. We argue that systems of workplace control are embedded in the social organization of the school (cf. Granovetter 1985) and that these control systems affect teachers' conceptions of the purposes and methods of teaching and, correspondingly, their classroom practices.

The early literature on the organizational control of teaching practice focused on the administrative management of schools' instructional shop floors and found precious little of it, providing evidence that the formal organization of schools is loosely coupled to teachers' work (Meyer and Rowan 1978; Weick 1976). Left unsettled by the loose-coupling analysis are the nature and location of whatever processes control teachers' work. The literature on teachers' socialization has demonstrated, in general terms, relationships between teachers' conceptions of work and teaching practices and on-the-job experiences, over and above the influences of training and earlier anticipatory socialization (see Zeichner and Gore, 1990, for a review of this literature). However, most of this literature has not discussed the nature of these experiences.

Our view of the control of teachers' work contrasts with what can be called the segmentalist view of the organization of the school workplace (see, for example, Lortie 1975; McPherson 1972) and the new institutionalist view (see Meyer and Rowan 1978). To the segmentalists, we owe the seminal insight that the division of labor powerfully shapes teachers' work. To the new institutionalists, we owe the no-less-seminal insight that forms of school organization and forms of educational production are socially constructed to a substantial degree. However, neither insight directly addresses relational structures in the school workplace or their consequences for teachers' work.
To link these relational structures to teachers' instructional beliefs and practices, we drew on the concept of the social type (Simmel 1950), thereby treating the control of teachers' work as a kind of social control. In our research, we posited four ideal-typical teacher types that represent distinct constellations of pedagogical beliefs and practices. In effect, the beliefs that characterize the four types constitute four limiting case possibilities for the development and enactment of teachers' personal philosophies or theories of teaching. We hypothesized a direct connection between workplace controls in schools and the degree to which teachers' instructional beliefs and practices approximate one or another of the four types. We then analyzed how workplace controls mediate between exogenous characteristics of a school and the way its faculty conceive of teaching and conduct their classes. Readers should keep in mind that our purpose was to analyze workplace controls in schools—not to account for the full range of variation in teachers' pedagogical beliefs and practices, which are subject to a myriad of institutional and individual influences beyond the influences specific to a faculty's workplace (Metz 1990).

THEORY

Teacher Types

Simmel's (1950) analysis of social types can be extended to account for the emergence and persistence of occupational types that are specific to kinds of workplaces. Simmel argued that key structural attributes of a social situation produce strong central tendencies in the thought and actions of people in the situation. These attributes constitute a coherent, mutually reinforcing set of opportunities for, and constraints on, social interaction that have determining consequences for modes of thought and patterns of action.

Initially, these opportunities and constraints produce regularities of behavior. When a person encounters these regularities repeatedly in his or her own conduct and in the conduct of others, they produce habitual ways of thinking and acting that reinforce one another and become self-sustaining. These habits form the central tendencies of thought and conduct that constitute a social type. Once these constitutive ways of thinking and acting become self-sustaining, they become prime organizing principles of the self that gain autonomy and become transsituational.

The Structurally Embedded Control of Teachers' Work

To extend Simmel's (1950) formulation to the school workplace, we had to specify the key structural attributes of this workplace and show how these attributes comprise opportunities for and constraints on what teachers believe about teaching and what they do when they teach. By specifying the variability of these key attributes, we can show how this variation forms distinct workplace situations in each of which a consistent trend toward a corresponding modal teacher type can be observed.

School workplace structure. We posited that size, or, more precisely, the structures of faculty interaction that are correlated with size, and the power of clients relative to that of teachers are the two key structural attributes of the school workplace. The theoretical justification for this approach is eclectic (Bidwell and Quiroz 1991). School size is important because of its consequences for interaction in the school workplace (Blau 1977; Friedkin 1991; Lankford 1974; Mayhew and Levinger 1976; Moreno and Jennings 1941). On average, the bigger a school, the less likely it is for any pair of teachers to interact with one another or with administrators. As the number of teachers increases, information passed from one person to another is more likely to be distorted, cohesion-based interpersonal influence is less likely, and individually self-interested behavior that capitalizes on gaps in the interpersonal network should be more frequent (Burt 1992). Therefore, we expected that the smaller a school, the greater the chances of finding interpersonal controls, such as collegial
consultation or direct supervision by a principal, departmental chair, or oligarchy of senior teachers. We also expected that the larger a school, the greater the likelihood of impersonal means of control like control through a rule book or the aggregated preferences of parents or students.

*Relative client power* is important because it affects the degree to which the school workplace is open to the influence of administrators or faculty oligarchs, rather than that of parents and students. In most schools, the effective locus of curricular and instructional decision making is a matter of the balance of power between (1) the larger body of the faculty, (2) school and district administrators, (3) a faculty oligarchy (in some schools), and (4) parents and students. In this small political arena, the parent-student clientele is a critical collective actor. Parents and students can be reached directly by each of the other actors, and most schools depend immediately on parents (and indirectly on students via parents) for a major portion of their fiscal and political resources (Bacharach 1981; Lawrence and Lorsch 1967; Selznick 1961).

Powerful parents generate strong, partially contradictory, pressures on schools (Metz 1990). They tend to demand and obtain capable, professionally oriented teachers, and faculties composed of such teachers are especially likely to make strong efforts to attain autonomy. At the same time, powerful parents and powerful students are likely to make their demands known directly to teachers, bypassing formal channels and thereby limiting teachers' autonomy (Cusick 1983; Hatton 1987). However, it is not likely that professionally oriented teachers will simply comply with such demands. More often, they will try to use them to their own advantage, forming alliances with their parent or student clients as a defense against administrative or oligarchic directives. Because faculty-client alliances are built on exchanges of clients' satisfaction for clients' support, faculties that use these alliances to buffer themselves from administrative or oligarchic intervention do so at the cost of openness to clients' influence. (Metz's, 1986, case studies of the Heartland magnet middle schools documented such alliances and the exchanges on which they are based.)

In large schools, where face-to-face interaction is comparatively difficult, the faculty-client alliance may remain latent. However, even a latent faculty-client alliance can strengthen a faculty's control of the workplace. Latent or manifest, client power is useful to a faculty to the extent that the exchange of satisfaction and support is in balance. Consequently, the greater the relative power of a school's parent-student clientele, the more likely it is that the faculty workplace will be buffered from internal administrative or faculty oligarchic influence and will be open to the external influence of the clientele.

Crossing the dimensions of size and relative client power yielded the four school workplace control systems shown in Figure 1. In this figure, each of the four corners of the property space represents a direction of workplace control toward which schools should tend, depending on their size and relative distribution of client power. When schools are large and client power is low, faculties should be less powerful than administrators, and client demand should not be pressing, allowing workplace control to be achieved through impersonal, rule-bound bureaucratic administration. Schools with large faculties and high client power should be characterized by impersonal workplace control that is sensitive to client demand: markets in which teachers compete with one another for students' or parents' preferment. When client power is low, small faculties, lacking effective allies among and demand by clients, should be vulnerable to administrative or senior faculty autocrats or oligarchs. In contrast, small faculties and powerful clients produce favorable conditions for collegial workplace control: opportunities for face-to-face interaction throughout the faculty, clients' demand for professionalism in the staff,
and a workplace buffered from administrative intervention.

Variation in the two key structural attributes—size (impersonal or interpersonal faculty interaction) and client power—should set conditions for the formation and stabilization of teacher types that vary according to a school's location in the property space. To some degree, each variety of control and each teacher type should be found in most, if not all, schools. Nevertheless, we expected that as schools tend toward one or another control system, their faculties will tend toward a corresponding modal teacher type. The \textit{rigorist} corresponds to bureaucratic control, the \textit{moral agent} to autocratic-oligarchic control, the \textit{pal} to market control, and the \textit{progressivist} to collegial control.

The \textit{rigorist}. The rigorist sets high standards for attainment and pays little attention to differences in individual students' ability, motivation, or interest. Teacher-centered methods—lecturing or a fixed routine of asking and answering, for example—suit this approach to instruction.

In large schools with centralized power, where bureaucratic control predominates, the rigorist should be the modal teacher type. In these schools, solutions to problems of teachers' work tend to be defined according to strict guidelines that require little interaction or consultation with colleagues or administrators and leave little room for innovation. Since teachers have limited control over instructional resources, they safeguard their resources to achieve the formally defined objectives of the workplace because the achievement of these goals is a major criterion in evaluations of and decisions to promote teachers. Bureaucratic instructional policies and bureaucratic intrusions into the classroom, such as administrative paperwork, require the efficient marshaling of time and resources and the even-handed treatment of students. The result is a strong emphasis on rules, order, and social distance between teachers and their students.

In this context, the teacher is socialized in a distinctive way. Just as the rules of the workplace are uncompromising for the teacher, so the teacher is encouraged to conduct classes in an uncompromising way by displaying an inflexible stance toward the students. This behavioral pattern may occur first as no more than compliance with the externally imposed order. However, with time, it should evolve into a set of beliefs, gradually cohering as a personal philosophy of teaching. With the attainment of instructional and procedural goals, the teacher not only becomes accustomed to a closely ordered classroom, but believes that this order optimizes learning. Just as the rules of the workplace are applied universally to the faculty, so the teacher adopts this criterion for his or her instructional work, regarding compliance with rules as both a practicality and a moral imperative.\footnote{The moral agent. The moral agent uses traditional teaching methods in the service of inculcating morality. In small schools with centralized power distributions, the moral agent should be the modal teacher type. In these schools, power to control teachers' work should be concentrated autocratically or oligarchically in the hands of administrators or a few senior teachers who articulate and exemplify the school's mission. Under the close scrutiny of a principal or senior colleagues, teachers conform to local customs or comply with superordinates' dictates. Because this dominant control exemplifies a mission for the school, instruction is likely to be}
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viewed as a way to accomplish the mission, an instrumentality that may be specified in instructional objectives and guidelines.²

Acceptance of the mission is likely to be stressed, over and above pedagogical skills or command of the subject matter, as a criterion of teachers’ merit. Hence, what a teacher does with students is likely to be framed as an effort to further the mission by shaping students’ identities and normative commitments. The mission and efforts to realize it through the formation of students’ beliefs and values should acquire a personal meaning for the teacher that transcends his or her compliance with dominative control. Under these circumstances, teaching methods are likely to be traditional (teacher centered), with moral inculcation, rather than academic achievement, the chief instructional objective.

The pal. The pal’s objectives and teaching methods are highly responsive to students’ preferences, and social distance is low between the pal and students. In large schools, in which power is decentralized and market control predominates, the pal should be the modal teacher type. Competition among teachers is likely to center on course enrollments and the good things that result from well-populated classrooms—such as the opportunity to teach electives, to teach students of a preferred ability level, or to enjoy immunity from faculty “reductions in force.” Consequently, teachers in market-controlled schools should feel strong pressures to use intimacy or pseudo-intimacy to build and retain a student following. (On the endemic problem of social distance in teaching and its relation to school organization, cf. Bidwell 1965, Durkheim 1961, and Waller, 1932; on “charismatic teaching,” cf. Swidler 1979; on schools as markets, cf. Cusick 1983; and on faculty adaptations to students’ and parents’ preferences, cf. Metz 1990.)

Pals interact with students informally (sometimes outside school) far more often than do teachers of other types and know a good deal about the students’ out-of-class lives. As time passes, their use of intimacy in relationships with students should become habitual, even preferred, and these teachers come to view students as consumers, with legitimate rights to influence instructional goals and methods and, perhaps, course offerings. These teachers are willing to focus on either the teaching of basic facts or on the critical analysis of subject matter and teach, advise students, and sponsor extracurricular activities with an eye to cultivating a student following. Concern with a student following should also encourage these teachers to provide students with high levels of academic help and social support and to emphasize teaching that is directly related to students’ current preferences and interests.

The progressivist. The progressivist is a contemporary exemplification of the instructional aims and methods of progressive education (Cremin 1961: 328–30). This type of teacher stresses developing higher-order mental processes and intellectual independence through the use of flexible, adaptive teaching methods.

In small, decentralized schools with collegial control, teachers have both the opportunity for extensive interaction and the power collectively to make decisions about their work. Moreover, administrators, parents, and students, as well as the teachers themselves, are likely to think of teachers as professionals who should be fully responsible for instruction. This situation should provide teachers with strong incentives to use reigning instructional doctrines as the prime criteria in collegial decisions about the curriculum and to share current views about how to teach particular courses.

Current pedagogical doctrines cast progressive classroom practice in language that gives priority to the development of students’ conceptual understanding, skills in critical thinking and other aspects of higher-order mental process, and intellectual independence and skepticism. They subordinate conventional notions of classroom discipline to a more flexible classroom order that is designed to develop students’ cognitive growth and self-discipline.
Therefore, teachers in these schools are likely to define and conduct their instructional work in terms of contemporary progressivism.³

**EVIDENCE**

Our research addressed two questions:

1. To what extent are the two exogenous school attributes, size and relative client power, associated with the incidence of bureaucratic, autocratic-oligarchic, market, and collegial control of teachers’ work?

2. To what extent are these controls associated with the occurrence of the predicted teacher types, once school size, relative client power, and characteristics of individual teachers are adjusted for?

**Data**

Our data came from a study of faculty social organization in 13 high schools. These schools were selected from the population of public and private high schools in the Chicago metropolitan area to represent as closely as possible the four corners of the property space shown in Figure 1.⁴ We intended thereby to maximize the comparative potential of our study, which, because of its methods of data collection, could include only a small number of schools. The large schools in our sample enrolled 2,500–3,000 students and employed 200–300 teachers; the small schools enrolled 300–600 students and employed 30–80 teachers.

When we were choosing the schools, we had no direct measure of the relative power of the parent-student clientele. Because we had posited that relative client power is a function of parents’ socioeconomic status (SES), we used an estimate of the schools’ student SES composition to indicate relative client power. We derived this estimate from information about the proportion of a school’s student body who were eligible for the federal school lunch program and data from the U.S. Bureau of the Census and Department of Labor about the demographic and labor force composition of the communities the schools served. Later, we confirmed the accuracy of these estimates: Students in our high-SES schools came mainly from upper-managerial and professional families, whereas students in our low-SES schools came primarily from families whose incomes were below the federal poverty level (with a heavy incidence of unemployed parents and single-parent families).

The high-SES schools were indeed characterized by relatively high rates of parental involvement, both in the schools’ specific treatment of their children and in more general matters of school and district policies. They also seriously considered parents’ and students’ preferences when making curricular or instructional decisions. For example, in a typical comment, the principal of one such school said: “We never take a serious step around here without seeing how the land lies with our clientele. I have my reliable informants, and I know that the department chairs have theirs.”

In the low-SES schools, there was little parental involvement of any kind and, for the most part, parents’ and students’ preferences did not seem to be taken into account in the determination of curricular or instructional policies. The administrators and departmental chairs in these schools referred primarily to district personnel as the significant actors in their decision-making domains.

We gathered field data for 10–14 days per school, spread intermittently over approximately one month. We collected a variety of official school documents. In addition, we interviewed the principal and the curriculum director or corresponding assistant principal (if there was one in the school); the chairs of the English, social studies, mathematics, and science departments; the chair of one department from the arts, business, and vocational fields; and two senior and two junior teachers from each of these departments.

In these interviews, our informants told us about (1) the distribution of authority and power in the school;
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(2) modes of decision making about curriculum, instruction, and disciplining of students; and (3) levels and directions of the faculty's involvement in these aspects of teachers' work. Furthermore, we shadowed our teacher-informants during entire working days (usually two or three days per teacher), taking advantage of opportunities to observe formal faculty, departmental, and committee meetings and informal interactions among teachers and between teachers and administrators.

Finally, we surveyed the entire faculty. One part of the questionnaire, like the fieldwork, was intended to provide evidence of the workplace controls to be found in each school. Other parts of the questionnaire asked the respondents to describe their teaching objectives and practices, their current teaching responsibilities, their career histories, and their social origins.

School-Level Variables

The measure of school size was total enrollment. The measure of relative client power was the estimated modal SES of the student body. To measure workplace control systems, we grouped the 13 schools into three categories on each of the four posited systems (bureaucracies, autocracies or oligarchies, markets, and collegia): high (relatively pure types), medium (mixed types with one type predominant), and low (all others). This classification was based on three raters' readings of teachers' and administrators' descriptions of curricular and instructional decision making, teachers' responses to questionnaire items concerning sources of influence over these decisions, observations of departmental and administrative meetings in which decisions were in process, and further observations of less formal decision making (for example, conversations in corridors between teachers and departmental chairs).

The primary criteria for categorizing schools by control systems were a set of curricular or instructional policies and decisions (such as adding or removing courses from the curriculum, assigning teachers to courses, and establishing grading policies). Market control was indicated by the frequency with which these policies and decisions depended on course enrollments, students' preferences, or parents' preferences (when applicable). Autocratic-oligarchic control was indicated by the frequency with which the policies and decisions were made by the principal or a group of senior teachers. Collegial control was indicated by the frequency with which the policies and decisions were made by "teachers consulting together." Bureaucratic control was indicated by the frequency with which the policies and decisions were derived from higher-level policies or involved the application of school-level rules that were already in place. We performed three independent rankings. Interrater reliabilities of .93, .96, and .94 were obtained between the pairs of raters.

Each school was, to some extent, a mixed case of workplace control. However, the schools that rated high on bureaucratic control were characterized particularly by a heavy reliance on formal procedural rules in decisions made by departments and individual teachers and in dealings between teachers and students. The relatively pure-type autocracies or oligarchies were characterized by an extreme centralization of effective decision making and few formal procedures; this control extended to the teachers' classroom conduct. Schools that ranked high on market control gave distinctive primacy to actual or prospective course enrollments in decisions about removing or adding course offerings and were characterized by high overt levels of interteacher and interdepartmental competition for program and course enrollments. Relatively pure-type collegia displayed flat decision-making hierarchies, with teachers' substantial autonomy in courses or classrooms and substantially egalitarian participation in curricular decisions in the subject-matter departments.
Covariates

The individual teacher-level variables included measures that we expected, on either an empirical or an intuitive basis, would covary with teachers’ orientations toward the teacher types. These variables were covariates in our analysis of relationships between control systems and teacher-type orientations.

Prime among these covariates was the teacher’s main teaching field. There is a growing body of evidence that teachers’ pedagogical beliefs and practices differ according to teaching fields. The principal study in this area, by Stodolsky and Grossman (1995), reported that high school English and social studies teachers are consistently high, but foreign language and mathematics teachers are consistently low, on dimensions of teaching beliefs and practices similar to the progressivist teaching orientation. English and social studies teachers are more likely than foreign language teachers to stress students’ understanding of general principles and development of higher-order cognitive skills, but are less likely to rely primarily on teacher-centered methods. Stodolsky and Grossman also reported that mathematics and foreign language teachers are more likely than others to emphasize stringent academic and behavioral standards and universalistic treatment of students, similar to the rigorist teacher type (see also Bernstein 1971; Grossman 1987; Wilson and Shulman 1987; Wilson and Wineburg 1988).

In our models, teaching field was represented by six dummy variables. To correspond to Stodolsky and Grossman’s (1995) findings, the comparison category was social studies (including history), and the variables included English, mathematics, and foreign language. The remaining variables were art and music, science, and other fields.

In addition to teaching field, the individual-level covariates were gender, ethnicity, and seniority in the present school. Gender was coded 0 for male and 1 for female, and ethnicity was coded 0 for White and 1 for minority. Seniority was defined as the total number of years that the respondent had taught in his or her present school. Seniority in the school and total years of teaching experience were too strongly correlated for both to appear in the same model, so our seniority measure was, in part, a proxy for total teaching experience.

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The respondents’ teacher-type orientations were measured by scores on four factor-weighted scales. The pool of questionnaire items about teaching beliefs and practices was generated from our a priori descriptions of the teacher types, with the intent of representing each type with approximately the same number of items. The responses to these Likert-type items ranged from “not at all like me” to “a lot like me.” From a principal-components factor analysis of the responses to these items, we identified four dimensions, after which the eigen values dropped off sharply. These latent factors correspond to the four posited types. Scales operationalizing each latent factor were formed by selecting items that had a loading greater than .35 on that factor and less than .35 on each of the others (after rotation). Rating-scale analysis (Wright and Masters 1982) indicated that for no scale did any selected item have a misfit as large as 2.0. The items that made up each scale are shown in the appendix, which also presents the reliability coefficients for the scales, the lowest of which is .74.

To adjust for differences in the respondents’ general propensity to agree and in the variability of their agreement with specific items, the scale scores were standardized to the means and standard deviations of individual respondents’ responses across the items used in the four scales. In effect, the four scale scores were forced to sum to zero for each respondent, so that each score indicates the extent to which the respondent was oriented toward a given teacher type relative to the other three.

To assess the validity of the teacher-type scales, we randomly selected a subsample of 26 respondents, 1 senior and
1 junior teacher in each of the 13 schools. We then extracted from the interviews with these teachers, their faculty colleagues, and their department chairs all descriptions of the respondents' current instructional practices. The number of self-descriptions ranged from 3 to 21, with a mean of 13; there were fewer descriptions by colleagues and department chairs (an average of 2 in each case), although several of the descriptions by the chairs are fairly detailed. Without knowledge of the teacher-type scale scores, two coders classified each description into one of the four type categories (with an inter-rater reliability of .90 for the respondents' interviews, .87 for the colleagues' interviews, and .93 for the department chairs' interviews).

All the coded self-descriptions, colleagues' descriptions, and department chairs' descriptions agreed on each teacher's most characteristic category of teacher type. Moreover, when we ordered the coded self-descriptions by frequency and compared them with the standardized scale scores, we found a perfect agreement between the ordered self-descriptions and the order of the standardized scores in 21 of the 26 cases, with only one disagreement about the most characteristic category.

The content of all the descriptions, like that of the teacher-type scales, corresponds closely to our a priori definitions of the four types. Teachers who scored relatively high on the Progressivist scale, for example, described themselves and were described by others as stressing students' understanding, teaching for principles more than specific content, and giving priority to creativity or originality over mastery of specific facts or concepts. For example, a history teacher who scored high on this scale described his teaching this way:

I don't dwell a lot on facts, dates, things like that. They'll soon forget them anyway. I want them to comprehend some of the major forces, economic, political, and so on, that changed the face of Europe.

Teachers who scored relatively high on the Rigor scale were described as especially tough graders, no-nonsense disciplinarians, and rather rigid in their approach to the subject matter, paying greater attention to facts and the mastery of specific skills than to more generalized forms of learning. For instance, a mathematics teacher who scored high on the Rigor scale was described by the department chair in these words:

He's one of the best. Takes no guff, accepts no excuses. When they leave his course, unless they are really inept, they have the skill foundation they'll need for calculus. And even the art and English teachers find that his students have learned self-discipline.

Teachers who scored relatively high on the Pal scale were described as unusually friendly with students, approachable, and interested in helping students with personal problems (sometimes excessively so). A colleague spoke in these terms about a foreign language teacher who scored high on this scale: "I think she overdoes it. Fairs, festivals, whatever she can find about Mexico to draw them in, make them her buddies on the road."

The few high scorers on the Moral Agency scale were depicted as moral exemplars for students, concerned with students' "right thinking," and engaged in a struggle to ensure that new generations are committed to one or another set of values. An English teacher who scored high on Moral Agency gave this view of her primary classroom objective:

As I see it, given where most of these kids are going to wind up next, this is the last chance for them to learn decent values, so my colleagues and I try to teach them, to give them the kinds of values that will keep as many as possible on the right track in life, come what may.

We would gain further confidence in the validity of the teacher-type scales if we could demonstrate that they measure elements of larger constructs that represent principal ways of thinking and going about teaching. Toward this end, we analyzed a different data set, collected from the 755 mathematics,
science, English, and social studies teachers in a national sample of 50 U.S. high schools. These data included scores on the teacher-type scales and on other scales that further measure teachers’ self-reported teaching aims and methods.

A principal-components factor analysis of the responses to these scales suggested that the teacher-type scales are indicators of latent factors that correspond to distinct clusters of teaching beliefs and practices: (1) Progressivism versus Teaching for Moral Inculcation (the former in an open, flexible subject matter, the latter in a rigidly ordered subject matter), (2) Adaptiveness versus Uniformity (of methods and standards), and (3) Social Distance (low versus high in relations with students). Our Progressivist scale loads heavily and positively on the first factor, our Pal scale loads heavily and positively on the third factor, our Rigor scale loads heavily and negatively on the second and third factors, and our Moral Agency scale loads heavily and negatively on the first and third factors. This analysis did not distinguish cleanly between the Rigor and Moral Agency scales, but it seemed sensible to use them as separate measures, in view of the results of the initial factor analysis from which the scales were derived and their grounding as distinct types in our theory (details of these analyses are provided in the appendix).6

Teacher types, like social types more generally, should be transsitutational. In high schools, a particularly important aspect of the stability of teacher types is the tendency for teachers to display similar instructional practices in whatever specific course or ability level they are teaching. Pertinent evidence came from the observational logs kept during the two days in which each of our respondents was shadowed. On average, the 26 teachers were observed teaching during 10 class periods, with a minimum of 5 periods and a maximum of 16. In 11 of the 13 schools, school policy required teachers to teach across ability levels each year, and we observed 23 of the 26 respondents teaching classes in at least two ability levels. We also observed 19 of the 26 respondents teaching more than one course. Again, we coded the observational descriptions of teaching practice (which were global summaries, rather than systematic time samples of discrete events) into the four teacher-type categories (with an agreement between the two raters of .86).

In no case did we find a teacher whose principal mode of instruction varied from course to course or level to level. Instead of changing, say, from progressivism to rigor when teaching in the general track, rather than the academic track, or sharply reducing the social distance between them and the students from required to elective courses, these teachers made smaller adaptations of their teaching methods. For example, a teacher who scored high on the Progressivist scale might use complicated projects with honors-level students and simpler projects with general- or vocational track students. A teacher who generally maintained considerable social distance in relations with students might relax his or her formality a bit in an elective course, without allowing intimacy to follow. In this way, the teacher types were transsitutational. Like Simmel’s (1950) metropolitan social type, who is metropolitan in outlook and conduct whether in the city or the country, these teachers maintained a consistent, distinctive teaching style whatever the classroom context.

Although the teacher-type scales measure principal modes of teaching, they are single empirical dimensions, so that none represents a fully formed instructional regimen. The zero-order correlations among the teacher-type scores, shown in Table 1, suggest the broader range of teaching aims and practices that characterized the respondents who scored relatively high or relatively low on the four scales. The correlations show that progressivists, who stressed teaching for higher-order mental processes, were likely to be flexible classroom disciplinarians who rejected the aim of inculcating values and paid relatively little attention to teaching “the basics.” They differed more among
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Table 1. Zero-Order Correlations Among the Teacher-Type Orientations

<table>
<thead>
<tr>
<th>Progressivist</th>
<th>Moral Agent</th>
<th>Pal</th>
<th>Rigorist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Progressivist</td>
<td>1.000</td>
<td>-0.458***</td>
<td>-0.065</td>
</tr>
<tr>
<td>Moral agent</td>
<td>1.000</td>
<td>-0.501***</td>
<td>0.077*</td>
</tr>
<tr>
<td>Pal</td>
<td>1.000</td>
<td>-0.356***</td>
<td></td>
</tr>
<tr>
<td>Rigorist</td>
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</tbody>
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a Cell frequency in parentheses.
*p ≤ .05; ** p ≤ .01; *** p ≤ .001.

themselves in their management of social distance from students.

The pales, who consistently minimized social distance from students, were flexible classroom disciplinarians. They rejected the aim of inculcating values, but varied in their emphases on higher-order mental processes and teaching the basics. The rigorists, who were consistently severe disciplinarians and teachers of basic knowledge and skills, rejected teaching for higher-order mental processes, but varied in their stress on inculcating values. The moral agents rejected teaching for higher-order mental processes, but varied in their focus on the basics; like the rigorists, they consistently maintained social distance in relations with students, but were flexible classroom disciplinarians.

FINDINGS

Exogenous Correlates of Workplace Control

The association between the two exogenous school attributes—size and relative client power—and our ranking of the schools according to each of the four workplace-control systems conforms, for the most part, to the predicted pattern. Of the three large schools that ranked high on relative client power, all ranked high on market control. Of the three large schools with low client power, all ranked high on bureaucratic control. Of the three small schools that ranked high on client power, two ranked high and one ranked medium on collegial control. Of the four small schools with low client power, one

ranked high, one ranked medium, and two ranked low on autocracy-oligarchy.

Workplace Controls and Teacher-Type Orientations

To assess relationships, net of the individual teacher covariates, between the workplace controls found in each of the 13 schools and individual teachers' scores on the teacher-type scales required multilevel modeling to obtain parameter estimates and standard errors. Using standard regression techniques, with data specified at the individual level, would have violated the assumption of independent observations, given the potential exposure of an entire faculty to such school-level phenomena as workplace control. Therefore, we evaluated two-level hierarchical linear models (HLMs) (Bryk and Raudenbush 1992), in which individual scores on one or another of the teacher-type scales are predicted. In the individual-level models, the predictors are a vector of teacher covariates. In each school-level model, the predictors include a control-system measure, school size, and aggregate school SES. The degrees of freedom for assessing school-level effects are based on the independent school units (Bryk and Raudenbush 1992:47, 100–101).

Because our data came from only 13 schools, observed school-level effects could have been strongly influenced by one or two outlying schools. We plotted the residuals against the comparison distributions for each of the models that we evaluated and observed no extreme residual values (Bryk and Raudenbush 1992:209–10; Seltzer 1990). Therefore, it
is unlikely that our school-level findings reflect the influence of outliers. A plot of residuals against predicted values also indicated no serious departures from assumptions of linearity or homoscedasticity for the school-level effects. We do not report $p$ values because the number of degrees of freedom is uncertain, especially given the small number of schools in the school-level models. As a rule of thumb, we regard a $T$-ratio greater than 2.2 as significant at the .05 probability level.

We estimated four two-level models, each predicting individual scores on one of the teacher-type scales. In each analysis, the relationships between workplace control and individuals’ teacher-type scores were in the predicted direction. However, only those for the prediction of the scores on the Progressivist and Pal scales yielded $T$-ratios above 2.2. We have greater confidence in the results for these scales than in those for the Rigor and Moral Agency scales and therefore give them greater attention. In a later section, we summarize the findings for Rigor and Moral Agency.

The findings for the progressivist and pal teacher types are shown in Tables 2 and 3. In these tables, variables shown in bold face constitute the individual-level model, and the others make up the school-level model. We report only the standardized coefficients because the dependent variables lack true metrics. In the school-level model predicting scores on the Progressivist scale (Table 2), the workplace-control variable is collegial control; in the corresponding model predicting scores on the Pal scale (Table 3), the workplace-control variable is market control. Row 4 of Table 2 shows that collegial control is positively associated with individual teachers’ scores on the Progressivist scale. Row 4 of Table 3 shows that market control is positively associated with individual scores on the Pal scale. In each case, the $T$-ratio is greater than 2.2. These associations are net of both school size and school SES. Moreover, estimation of other models not reported here showed that among the four control variables, collegial control was the only predictor of scores on the Progressivist scale for which $T$ was greater than 2.2, while market control was the only predictor of scores on the Pal scale with a $T$-ratio above this level.

The individual-level models include teaching field (the dummy variables with social studies-history the comparison category) and seniority in the present school. The individual-level model predicting scores on the Pal scale also includes gender (with male the comparison category) and ethnicity (with White the comparison category). Junior teachers were more likely than senior teachers to score high on the Pal scale, but the chief finding at the individual level are the associations between teaching fields and the scores on the Progressivist and Pal scales. In a pattern that is generally consistent with Stodolsky and Grossman’s (1995) findings, mathematics teachers scored significantly lower than social studies teachers on the Progressivist scale, while English teachers scored significantly higher. With respect to scores on the Pal scale, science and English teachers scored significantly lower than social studies teachers. The correlations of teaching field and teacher-type scores presumably include effects of practice norms institutionalized in the school subjects, local formal organizational controls in subject matter departments, and the history of interaction among local subject-matter colleagues up to the time our data were collected (McLaughlin, Talbert, and Bascia 1990).

In the variance components panels of Tables 2 and 3, the variances before prediction (the unconditional models) sum to a value of 1 because the outcomes are standardized. Before prediction, 8.6 percent of the variance in the scores on the Progressivist scale was between schools and 91.9 was within schools (see Table 2). The corresponding percentages of variance in the scores on the Pal scale were 3.0 percent and 96.6 percent (see Table 3).

Combining the variances in the scores on the Progressivist scale after prediction, we found that 86 percent of the
Table 2. Individual- and School-Level Factors that Affect Teachers’ Tendencies Toward the Progressivist Orientation

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Standardized Coefficient</th>
<th>SE</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>-0.0711</td>
<td>0.0521</td>
<td>-1.365</td>
</tr>
<tr>
<td>School size</td>
<td>-0.0266</td>
<td>0.0539</td>
<td>-0.494</td>
</tr>
<tr>
<td>School SES</td>
<td>-0.1240</td>
<td>0.0624</td>
<td>-1.987</td>
</tr>
<tr>
<td>Control mechanism: Collegium</td>
<td>0.2288</td>
<td>0.0627</td>
<td>3.645</td>
</tr>
<tr>
<td>Seniority</td>
<td>0.0367</td>
<td>0.0331</td>
<td>1.106</td>
</tr>
<tr>
<td>Art (dummy variable)</td>
<td>0.0577</td>
<td>0.0313</td>
<td>1.840</td>
</tr>
<tr>
<td>Science (dummy variable)</td>
<td>0.0202</td>
<td>0.0329</td>
<td>0.614</td>
</tr>
<tr>
<td>Mathematics (dummy variable)</td>
<td>-0.0961</td>
<td>0.0333</td>
<td>-2.889</td>
</tr>
<tr>
<td>English (dummy variable)</td>
<td>0.2236</td>
<td>0.0337</td>
<td>6.630</td>
</tr>
<tr>
<td>Foreign language (dummy variable)</td>
<td>-0.0344</td>
<td>0.0331</td>
<td>-1.039</td>
</tr>
<tr>
<td>Other (dummy variable)</td>
<td>0.1192</td>
<td>0.0350</td>
<td>3.408</td>
</tr>
</tbody>
</table>

Variance Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Before Prediction</th>
<th>After Prediction</th>
<th>P</th>
<th>% Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between schools (U)</td>
<td>0.086</td>
<td>0.0154</td>
<td>p &lt; .03</td>
<td>82.09</td>
</tr>
<tr>
<td>Within schools (R)</td>
<td>0.9019</td>
<td>0.842</td>
<td></td>
<td>0827</td>
</tr>
</tbody>
</table>

Individual level

\[
\gamma = \beta_0 + \beta_1 \text{Years Teaching} + \beta_2 \text{Math or Science} + \beta_3 \text{Social Science} + \beta_4 \text{Art or English} + R
\]

Reduced form:

\[
\gamma = \beta_0 + \beta_1 \text{Years Teaching} + \beta_2 \text{School COVARIATES} + R
\]

School level

\[
\beta_0 = \gamma_0 + \gamma_1 \text{School Size} + \gamma_2 \text{School SES} + \gamma_3 \text{Collegium} + U
\]

percentage is small, it is roughly comparable to the proportion of explained variance in other studies of the school context of teaching (see, for example, Lee, Dedrick, and Smith 1991).

To provide more precise information about effect sizes (ESs) associated with between-school and between-field variation, we derived ordinary least-squares (OLS) estimates for general linear models predicting scores on either the Progressivist or the Pal scale. The predictors in each model are the vectors of individual-level teacher covariates from the HLM models and the pertinent school control-system measure, school size, and school SES. The ES measure is the mean square associated with each predictor. (We did not use the simple percentage of explained variance because it is biased in favor of predictors that use many degrees of freedom.) Although in each OLS model, school and teaching field are significant
Table 3. Individual- and School-Level Factors that Affect Teachers’ Tendencies Toward the Pal Orientation

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Standardized Coefficient</th>
<th>SE</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>-0.1210</td>
<td>0.0410</td>
<td>-2.944</td>
</tr>
<tr>
<td>School size</td>
<td>0.0650</td>
<td>0.0439</td>
<td>1.476</td>
</tr>
<tr>
<td>School SES</td>
<td>0.0180</td>
<td>0.0437</td>
<td>0.412</td>
</tr>
<tr>
<td>Control mechanism: Market</td>
<td>0.1726</td>
<td>0.0389</td>
<td>4.442</td>
</tr>
<tr>
<td>Female (dummy variable)</td>
<td>0.0519</td>
<td>0.0352</td>
<td>0.907</td>
</tr>
<tr>
<td>Seniority</td>
<td>-0.1545</td>
<td>0.0351</td>
<td>-4.401</td>
</tr>
<tr>
<td>Minority (dummy variable)</td>
<td>-0.0432</td>
<td>0.0359</td>
<td>-1.202</td>
</tr>
<tr>
<td>Art (dummy variable)</td>
<td>0.0126</td>
<td>0.0320</td>
<td>0.384</td>
</tr>
<tr>
<td>Science (dummy variable)</td>
<td>-0.1115</td>
<td>0.0350</td>
<td>-3.186</td>
</tr>
<tr>
<td>Mathematics (dummy variable)</td>
<td>-0.0520</td>
<td>0.0349</td>
<td>-1.486</td>
</tr>
<tr>
<td>English (dummy variable)</td>
<td>-0.0135</td>
<td>0.0330</td>
<td>-0.438</td>
</tr>
<tr>
<td>Foreign language (dummy variable)</td>
<td>-0.0153</td>
<td>0.0349</td>
<td>-0.438</td>
</tr>
<tr>
<td>Other (dummy variable)</td>
<td>-0.0476</td>
<td>0.0366</td>
<td>-1.303</td>
</tr>
</tbody>
</table>

Variance Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Before Prediction</th>
<th>After Prediction</th>
<th>P</th>
<th>% Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between schools [U]</td>
<td>0.0318</td>
<td>0.0004</td>
<td>p &gt; .5</td>
<td>0.9874</td>
</tr>
<tr>
<td>Within schools [R]</td>
<td>0.966</td>
<td>0.9295</td>
<td></td>
<td>0.0372</td>
</tr>
</tbody>
</table>

**Individual level**

\[ Pr_{ij} = \beta_0 + \beta_1 \text{Years Teaching}_{ij} + \beta_2 \text{Female}_{ij} + \beta_3 \text{Minority}_{ij} + \beta_4 \text{Math}_{ij} + \beta_5 \text{Social Science}_{ij} + \beta_6 \text{Art or English}_{ij} + R_{ij} \]

**Reduced form**

\[ Pr_{ij} = \beta_0 + \beta_1 \text{Years Teaching}_{ij} + B_{i} \text{Covariates}_{ij} + R_{ij} \]

**School level**

\[ \beta_0 = \gamma_0 + \gamma_1 \text{School Size}_{ij} + \gamma_2 \text{School SES}_{ij} + \gamma_3 \text{Market}_{ij} + U_{ij} \]

\[ \beta_1 = \gamma_0 + \gamma_1 \text{Market}_{ij} + U_{ij} \]

\[ \beta_1 = \Gamma_{\text{covariates}_{ij}} + U_{\text{covariates}_{ij}} \]

sources of explained variance when other predictors are controlled, the mean square is larger between fields than schools when scores on the Progressivist scale are predicted and larger between schools than fields when scores on the Pal scale are predicted. Moreover, school and field are the two strongest predictors of Progressivist scores, but seniority is the strongest (negative) predictor of Pal scores.

Perhaps when teaching doctrines or norms are less subject specific, both school-level controls and personal characteristics of individual teachers may be more potent.

**Effects of School Size and SES**

Our theory posits a causal sequence in which control systems intervene in the zero-order relationships between school size and relative client power, on the one hand, and teacher-type orientations, on the other hand. We have shown that, at the school level, school size and relative client power are related to the incidence of workplace controls, which, in turn, are correlated with teachers’ scores on the Progressivist and Pal scales. To continue the evaluation of the posited sequence, we estimated two-level HLMs that were identical to those shown in Tables 2 and 3, except that the
control-system term was omitted from the school-level model.

Although we expected that the direct effects of both size and SES in each of our school-level models would be larger when the control-system term was omitted than when it was present, the consequences of introducing the control variable actually differed, depending on the teacher-type score being predicted. Evidently, collegial control intervenes specifically in the relationship between school SES and teachers' scores on the Progressivist scale. Only the coefficient for SES is larger with the control term omitted than with it present (.275, \( T = 2.7 \)). (The corresponding size coefficient is .0002, \( T < .5 \)) When scores on the Pal scale are predicted, market control intervenes specifically in the relationship between school size and pal orientation. Only the coefficient for size is larger with the control term omitted. The \( T \)-ratio suggests significance at the .10 level (.134, \( T = 2.08 \)); given the sample size, this relationship may be of interest. (The corresponding estimate for SES is -.019, \( T = -.284 \).)

These results, which only partly conform to our expectations, raise interesting questions. Those schools with the higher average SES enrollment also had faculties who, on average, scored high on the Progressivist scale. Although one may interpret this relationship as an outcome of individual teachers' adaptations to the capabilities or demands of students or the demands of parents, the finding is more consistent with the proposition that the distinctive progressivist teacher type tends to occur whenever collegia form in the faculty workplace. The unexpectedly weak direct and indirect effects of school size may indicate that in larger schools, effective collegia tend to form within subunits of formal faculty organization or in specific regions of the faculty network that perhaps are based in subunits. The department is a likely locus of such collegia.

The absence of strong direct and indirect effects of school SES on the pal orientation is consistent with the postulated effects of market control on teacher types. However, in conjunction with the relatively weak association between bureaucratic workplace control and any of the teacher-type orientations, it also suggests that the market may have been the more prevalent or more potent control system in virtually all the larger schools.

**Alternative Explanations**

**Adaptation to students.** Other aspects of our findings also led us to conclude that teachers' adaptation to students is not a central explanation of these results. Although an emphasis on teaching students to grasp basic principles and on the development of higher-order cognitive skills or on close personal relationships with students could be a response to a middle- or upper-middle-class clientele, we controlled for school SES in our models. Furthermore, the association between school SES and individual scores on the Progressivist scale is consistently weak, and we saw an initially significant association between school SES and individual Progressivist scores weaken and lose significance with the introduction of the collegial-control variable into the model. Finally, the reduction in the significant association between school SES and teachers' Progressivist scores with the introduction of the control-system term is evidence that the propensity toward the progressivist type is not an unmediated response to the socioeconomic characteristics of students or of their parents. Moreover, we have reported other evidence that, for the most part, these teachers made only minor adaptations in their teaching techniques when they moved from one ability level to another.

**Effects of selection.** Selection is another plausible explanation. Perhaps the observed associations between workplace controls and the incidence of teacher types resulted from the combined effects of teachers' self-selection, selective recruitment, and selective retention. Teachers may choose to work in schools or may be appointed according to their conceptions of teaching. By definition, selective recruitment occurs
at the beginning of a teacher’s appointment, and both self-selection and selective retention are likely to take place in the early years of a teaching job. If our results were primarily the consequence of selection, with only weak workplace controls to reinforce the teaching orientations on which selection occurred, observed associations between workplace-control systems and individual teacher-type scores would be stronger among teachers who were new to a school than among those who were more senior in the school. If they were primarily a consequence of exposure to workplace controls, they would be stronger the more senior the teacher, as a result of cumulative exposure to workplace controls.

We estimated models identical to those of Tables 2 and 3, except for the addition of a term for the interaction of teachers’ seniority and the school-level modal control mechanism. The parameter estimates for this interaction term are weak, with T-ratios less than 2.2. Evidently, the individual teacher-type scores were affected both by initial self-selection, recruitment, and retention and by subsequent, cumulative exposure to workplace controls. In fact, self-selection and selective recruitment may stand in a complementary relationship to the effects of the setting on beliefs and conduct. A tendency for a school’s new teachers to hold teacher-type orientations like the faculty’s modal teacher type should have strengthened the capacity of the schools’ workplace controls to maintain these modal types.

**Predicting Scores on the Rigor and Moral Agency Scales**

In our initial models predicting scores on the Rigor and Moral Agency scales, the coefficient for the relation of bureaucratic control to rigor is .022 (T = .254) and for the relation of autocracy-oligarchy to moral agency, .011 (T = .112). Given these weak findings and to cast further light on school properties associated with teachers’ propensities toward one or the other of these teacher types, we evaluated models in which we added a dummy variable for school sector (Roman Catholic versus others). We wanted to estimate the possible effects of beliefs and practices that are distinctively institutionalized in Roman Catholic high schools.

In the model predicting individual-level Rigor scores, the strongest school-level predictor is school sector, with teachers in Catholic schools scoring, on average, higher than those in public or secular private schools. The coefficient is .056, but the T-ratio for this coefficient is only 1.31. In the model predicting Moral Agency scores, the significant school-level predictor is school SES, which is negatively associated with the individual teachers’ propensity for moral agency (−.226, T = 3.31).

OLS estimates of ESs showed that more explained variation in the scores on the Rigor scale lies between teaching fields than between schools, although the strongest predictor is gender, with males more positively disposed than females. The greater explained variation in the scores on the Moral Agency scale is between schools than between fields, with seniority being the strongest (positive) predictor. Given Stodolsky and Grossman’s (1998) finding that mathematics teachers placed significantly greater stress than teachers in most other fields on pedagogical aims and methods similar to those indicated by the Rigor scale, the stronger association of teaching field with Rigor scores may reflect a subject-based institutionalization of the norms of stringency and universalism in the treatment of students. Moral agency may be more open to local circumstance and individual predilection.

**DISCUSSION**

We are encouraged by our findings concerning the prediction of teachers’ scores on the Progressivist and Pal scales. It is important to note that these two scales represent ways of dealing with two central and enduring problems of teaching: how much emphasis to place on depth of understanding and how to handle social distance in
relations with students. Moreover, we found that the associations among school size, SES composition, observed workplace controls, and these core teacher orientations in general are ordered as our theory led us to expect. Our findings suggest that the social organization of the high school’s shop floor contains effective control systems.

Evidently, collegial and market controls in the social organization of the school workplace constrain teachers’ work experiences in ways that form and sustain distinctive teacher types. Our evidence that teacher-type orientations were stable across teaching situations and that tenure in a school opens teachers’ teacher-type orientations to cumulative effects points to this interpretation. From this standpoint, a teacher’s attitudes and behavior would be molded slowly by the everyday problems of teaching and the incentives for specific instructional practices that are distinctive of systems of collegial or market control. In time, the result would be a Simmelian occupational type that, although initially an adaptation to these workplace circumstances, had achieved transsituational autonomy in the teacher’s outlook and actions.

Although our data are cross-sectional, we have presented evidence that the relationships between workplace collegiality and markets and teachers’ scores on the Progressivist and Pal scales signal the power of workplace controls to alter what teachers think about and how they go about their work. Teachers who are new to a school surely arrive with orientations to teaching that have arisen from their training, prior professional experience, and from what Lortie (1975) called “the apprenticeship of observation.” However, if we are correct, either collegial or market control, embedded in the faculty social order and operating through the medium of everyday work experiences, reinforces or modifies teachers’ initial orientations to teaching (Grant 1988).

Our failure to find adequate support for the predicted relations of bureaucratic control to individual scores on the Rigor scale and of autocracy-oligarchy to individual scores on the Moral Agency scale points up weaknesses in our theory, particularly our conceptualization of these two workplace-control systems. These findings clarify what may happen in large schools with low client power, where we had expected the rigorist to be the modal type as a consequence of bureaucratic control. Our results suggest that even though bureaucratic control was especially evident in these schools, it was weak. At the same time, these schools may have been loci of sufficiently strong market control to make the pal orientation no less pervasive than in the large schools with high client power, although the comparatively low explained variance in scores on the Pal scale counsels caution.

However, because bureaucratic regulation is not self-enforcing, it is not likely to elicit consistently voluntary compliance. The enforcement of bureaucratic rules and procedures is a task of administrators. If the notion of loose coupling is taken seriously, it implies that such enforcement is not consistently effective in a high school workplace. Under this condition, bureaucratic regulation may be aggravating, distracting, or dispiriting to teachers, but it should not frame the regularity of behavior that is the foundation of a social type. If this surmise is correct, we would not be surprised that the main predictors of rigor are school sector and the teacher’s subject field, rather than bureaucratic control.

What happens in autocratic or oligarchic school workplaces is less clear. We may not have reasoned correctly when we granted administrative autocrats and faculty oligarchs so much autonomy. As a result, our theory may treat autocracies and oligarchies too narrowly, not allowing for equifinality in the relationship between these controls and teacher-type outcomes. We implicitly assumed a high degree of organizational autonomy for the small, low-SES schools. We found the most thoroughgoing instances of autocratic or oligarchic workplace control in these schools, but it may be better to regard the autocrats or the oligarchs in these
settings as part of the schools’ boundary-spanning apparatus, adapting what is taught to the requirements of organizational survival or sustenance. Most such schools are subject to external authorities, like a diocesan school board, a local parish, or a teaching order, that are probably the schools’ main providers of resources.

In this situation, what the autocrats or oligarchs require of their faculty colleagues may be a content or form of teaching that satisfies the preferences of the external authority (Goldring 1995). More often than the formation of values (moral agency), these preferences may be for teaching to overcome students’ motivational deficits by holding them to “standards” (rigor), teaching to overcome cognitive deficits by teaching students to think for themselves (progressivism), or raising students’ achievement more generally and consequently pushing teachers toward charismatic teaching (pat orientation). If this argument has merit, we need not be surprised that the main (negative) predictor of moral agency is the socioeconomic composition of the parent-student clientele—perhaps indicating that a low-SES clientele triggers an authoritative external demand for the formation of values in high schools.

Like others who have studied high school teachers’ pedagogical beliefs and practices, we found that teaching field is a pervasive correlate of teacher-type scores. In our estimated models, about the same proportion of explained variance is between teaching fields as between schools. No doubt, by the time teachers begin their first jobs, their conceptions of their work have been formed largely through exposure to the subject matter itself and to training in subject-related methods of instruction and understanding of the proper relationship between students and teachers (Felman-Nemser and Buchmann 1986; Lortie 1975; Wright and Tuska 1967). As they gain teaching experience, their teacher-type orientations may then form, in good part, through further exposure to the subject matter. This exposure may occur primarily in the school workplace through the cumulative effects of everyday encounters with the work of teaching in the subject field. It also may have sources beyond the workplace, as a result of exposure to the flow of ideas about teaching in the larger community of subject-matter teachers and specialists—in neighboring schools, in workshops and other varieties of in-service training, and in subject-matter organizations, for example. Our findings imply that such external subject-matter exposure will have particular force when the subject field is the locus of institutionalized pedagogical doctrines and norms (DiMaggio and Powell 1983; Talbert, McLaughlin, and Rowan 1993).

Presumably, teachers also experience the cumulative effects of school workplace controls, generated in the ways that we have suggested. When subject-matter and control-system influences run in the same direction, they should reinforce one another toward the formation and maintenance of stable teacher types among a faculty. For example, we would expect the English teachers in a collegial school to be strong and consistent progressivists and the foreign language teachers in a market-control school to be strong and consistent pals. When the influence of subject matter and workplace controls is inconsistent, the teachers’ experiences at work should have conflicting influence on their teacher-type orientations, resulting in less well-formed types.

In addition to the effects of socialization are controls that are specific to a high school’s subject-matter departments. Talbert et al. (1993) and Siskin (1994) demonstrated the importance of the high school department as a source of workplace control. Our model represents such control at the level of the full faculty. Almost certainly, some part of the within-school variance in our results lies among subgroups of teachers. We found little evidence of either direct or indirect effects of school size on Progressivist scores—a finding that is consistent with the proposition that faculty subgroups may form strong collegia.

Some of these subgroups may be specific to departments, and in these
Teacher Types

authentic teaching (Newmann, Marks, and Gamoran 1996).

4. Initially, we selected three schools in each cell of our design, including, when possible, a public, a Roman Catholic, and a private secular school. However, the small, low-SES schools were all Roman Catholic. Partway into the study, we discovered a small, low-SES public high school that was a little beyond the geographic boundary we used to define our school population, and we decided to include it.

5. Metz (1990) provided ethnographic evidence to suggest that teachers’ socioeconomic origins and professional training may be associated with their teaching styles. However, a preliminary analysis of our data showed that neither teachers’ socioeconomic origins (measured by the number of years of the respondents’ mothers’ education) nor the highest degree attained in the teaching field entered any of our models at a level approaching statistical significance ($7 < 1.5$). Metz also reported effects of teachers’ track assignments. However, in our sample of schools, the teachers taught, for the most part, in various curricular tracks or levels.

6. Rowan (1995) developed a scale to measure an aspect of teachers’ instructional beliefs that he calls “personalized instruction.” This scale overlaps our Pal and Progressivist scales, tapping elements of social distance in relationships with students and adaptation to differences among students.

7. The coefficient for other fields also has a $T$-ratio larger than 2.2. This relationship is not readily interpreted because of the diversity of the other teaching fields.

8. However, we used a ninefold classification of teaching fields. The nine categories are the original teaching-field response categories used in our teacher questionnaire: art and music, English, foreign language, mathematics, science, social studies/history, special education, vocational education, and other fields.

APPENDIX

Teacher-Type Orientation Scales

(Items listed in descending order of factor loadings)

Progressivist (alpha = .83)

- I encourage students to express opinions different from my own.
- My assignments require students to gather information on their own.
- I teach students how to learn.
• My homework assignments require students to think in new ways about what I have presented in class.
• The class material I choose stimulates students to reflect on their values.
• In my classes, I encourage students to interact with one another.
• My students must do more than learn basic facts.
• I regularly give students a chance to discuss issues among themselves.
• I regularly give students the opportunity to explore subject matter on their own.
• I regularly engage students in question and answer.

Moral Agent (alpha = .74)
• Order and discipline come first in my classroom.
• I try to instill a common set of values in my students.
• My lessons are based on an explicit set of values.
• I require a quiet classroom.
• Students see me as someone they can look up to.
• In my classes, I know what each student is doing.
• In my classroom, I usually set a well-defined task for each student.
• More than anything else, I set a good example for my students.
• I write detailed lesson plans.

Pal (alpha = .79)
• Students talk to me about their friendships.
• Students talk to me about what they do outside school.
• Students see me as a friend.
• Students know what I do outside school.
• I know a great deal about students’ families.
• Students see me as someone they can relate to.
• I try to keep a certain distance from students (reverse coded).

Rigorist (alpha = .75)
• So far as misbehavior is concerned, I rarely make exceptions for special cases.
• So far as missed examinations are concerned, I rarely make exceptions for special cases.
• I refuse to negotiate with students about homework assignments.
• Students rarely see me break a school rule.
• I refuse to negotiate with students about grades.

Principal Components Analysis:
Teacher-Type and Other Scales

As one way of validating the teacher-type orientation scales, we used data collected originally for other purposes, from the 755 science, mathematics, English, and social studies teachers who staffed a national sample of 50 U.S. public high schools. This high school sample was drawn for the Longitudinal Study of American Youth (LSAY) (see Miller, Hoffer, Suchner, Brown, and Nelson, 1992, for technical information on LSAY). These teachers had completed a questionnaire that included the items constituting our four teacher-type orientation scales and items making up an additional 14 scales developed by Stodolsky and Grossman (Stodolsky 1995; Stodolsky and Grossman 1995). Together, this combined set of scales provides fairly extensive measures of teachers’ self-reported teaching objectives and methods.

A principal-components analysis of the intercorrelations of the LSAY teacher respondents’ scores on these scales yielded three interpretable factors after Varimax rotation. For each factor, the scales that load most heavily on the factor and their factor loadings are listed next. For the Stodolsky-Grossman scales, we also provide a brief definition, the number of items, and the reliability coefficient.

Factor 1: Progressivism versus Teaching for Value Inculcation
PROGRESSIVIST .695
MORAL AGENT −.552
DEFINED −.637
SEQUENTIAL −.683

Factor 2: Adaptiveness versus Uniformity
CONNECT .755
TARGET .688
ADAPT .684
HELP .677
INDIVID .624
RIGORIST −.379
STATIC −.407

Factor 3: Low versus High Social Distance
PAL .926
PERSONAL .569
MORAL AGENT −.507
ACAD −.509
RIGORIST −.588
Teacher Types

Scale Definitions, Number of Items, and Reliabilities

ACAD (3 items, alpha = .66): The teacher holds all students to strict academic standards.

ADAPT (2 items, alpha = .49): The teacher is willing to change methods to increase students' attainments.

CONNECT (4 items, alpha = .70): The teacher tries to connect the curriculum to students' lives.

DEFINED (2 items, alpha = .38): The subject matter is well defined.

HELP (3 items, alpha = .58): The teacher provides extra help, like tutoring, to students.

INDIVID (3 items, alpha = .68): The teacher adapts course work to individual students' differences.

PERSONAL (2 items, alpha = .65): Students are given the opportunity in class and in written work to express their own ideas and views.

SEQUENTIAL (4 items, alpha = .67): The subject matter is organized sequentially or hierarchically.

STATIC (3 items, alpha = .56): The teacher thinks of the subject matter as fixed, limiting the teacher's flexibility.

TARGET (3 items, alpha = .65): The teacher gives special attention to low achievers.

REFERENCES


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The research on which this article is based was supported by Grant SES-8803225 from the National Science Foundation and the National Center for Educational Statistics and a grant from the Benton Center for Curriculum and Instruction of the University of Chicago. The authors alone are responsible for the article’s contents. They are especially grateful for the ideas and criticism of Anthony Bryk, Jeffrey Yasumoto, and the Sociology of Education Brown Bag Workshop at the University of Chicago. Address all correspondence to Dr. Charles E. Bidwell, Department of Sociology, University of Chicago, 5848 University Avenue, Chicago, IL 60637, or by E-mail at ceb@spc.uchicago.edu.