The theoretical analysis of time and teachers' work presented here arises from an ongoing project studying elementary principals' and teachers' perceptions and uses of preparation or planning time within the school day. Many school boards in Ontario now provide their elementary teachers with a guaranteed minimum amount of scheduling time for purposes of preparation, planning, and other support activities. Drawing on a sample of 18 schools in three school boards, the study investigates how preparation time is perceived and used in a board where such time is being newly instituted, in a board where preparation time has been in place for some years, and in a board where such time is related to a specific initiative designed to foster collaborative planning among teachers.

The study focuses not just on perceptions and uses of preparation time in particular, but also on the nature of the broader aspects of the work which teachers undertake outside of their scheduled class time. Five interrelated dimensions of time are discussed, particularly as they apply to teachers' work: technical-rational time, micropolitical time, phenomenological time, physical time, and sociopolitical time. A warning is raised that the administrative tendency is to exert tighter control over teachers' work and their time, to regulate and rationalize it and to break it down into small, discrete components. (JD)
Teachers' Work and the Politics of Time and Space

by

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Introduction

Time is the enemy of freedom. Or so it seems to the teacher. Time presses down the fulfilment of wishes. It pushes against the realization of wants. Time compounds the problem of innovation and confounds the implementation of change. It is central to the formation of teachers' work.

Teachers take their time seriously. They experience it as a major constraint on what they are able and expected to achieve in their schools. "No time", "not enough time", "need more time" -- these are verbal gauntlets that teachers repeatedly throw in the path of enthusiastic innovators.

The relationship of time to the teacher runs still deeper than this. Time is a fundamental dimension through which teachers' work is constructed and interpreted -- by themselves, by their colleagues and by those who administer and supervise them. Time for the teacher is not just an objective, oppressive constraint but also a subjectively defined horizon of possibility and limitation. Teachers can take time and make time, just as much as they are likely to see time schedules and time commitments as fixed and immutable. Through the prism of time we can therefore begin to see ways in which teachers construct the nature of their work at the same time as they are constrained by it. Time, that is, is a major element in the structuration of teachers' work. Time structures the work of teaching and is in turn structured through it. Time is therefore more than a minor organizational contingency, inhibiting or facilitating management's attempts to bring about change. Its definition and imposition form part of the very core of teachers' work and of the policies and perceptions of those who administer such work.

This paper identifies and analyses different dimensions of time and their implications for teachers' work. These dimensions are not just competing or complementary theoretical perspectives; different ways of looking at time by the theorist. They also constitute different facets of how time itself is constructed.
and interpreted in the social world at large and within teachers' work in particular.

The theoretical analysis of time and teachers' work presented here arises from an ongoing project studying elementary principals' and teachers' perceptions and uses of preparation or planning time within the school day. With the settlement of collective bargaining agreements throughout much of Ontario, many school boards now provide their elementary teachers with a guaranteed minimum amount of scheduled time -- usually 100 minutes per week, sometimes more -- for purposes of preparation, planning and other support activities. Drawing on a sample of eighteen schools in three school boards, the study is investigating how preparation time is perceived and used in a board where such time is being newly instituted, in a board where preparation time has been in place for some years, and in a board where preparation time is related to a specific initiative designed to foster collaborative planning among teachers.

Discussions of and developments concerning preparation time are heightening awareness among teachers, administrators and the public of the importance of time in teachers' work more generally. In this sense, the investigation of preparation time constitutes something of a critical case for studying broader definitions and interpretations of time in teachers' work as a whole. For this reason, the study focusses not just on perceptions and uses of preparation time in particular, but also on the nature of broader aspects of the work which teachers undertake outside their scheduled class time.

This paper develops and presents theoretical understandings of the relationship of time to the teacher's work which are emerging from the project as data are being analysed. At this stage, any references made to the study will be illustrative in character, selected in such a way as to highlight particular features
of the theoretical framework. More systematic discussion of specific project findings will be presented in later papers.

There are five inter-related dimensions of time I wish to pick out for discussion, particularly as they apply to teachers' work. They are technical-rational time, micropolitical time, phenomenological time, physical time and sociopolitical time.

1. Technical-Rational Time

Within the technical-rational dimension of time, time is a finite resource or means which can be increased, decreased, managed, manipulated, organized or reorganized in order to accommodate selected educational purposes. This dimension of time is dominant within forms of administrative action and interpretation which embody and are organized around principles of technical rationality. As writers like Habermas and Schön have pointed out, technical-rational forms of thought and action involve a clear separation between means and ends. Ends and purposes, here, belong to the value-based domains of philosophical, moral or political choice. Once ends have been chosen, the most efficient means of determining them, it is thought, can be identified instrumentally and scientifically, then implemented managerially and administratively. Time, in such a view, is an 'objective' variable, an instrumental, organizational condition which can be managerially manipulated in order to foster the implementation of educational changes whose purpose and desirability have been determined elsewhere. The purpose of educational research and administration, therefore, is to identify and institute allocations and uses of teacher time which facilitate the realization of desired educational objectives.
In an important and insightful paper, Walter Werner defines this view of time as 'objective time', 'public time' or 'fixed time'. Such time, he notes, is the very basis of planning:

"It is particularly the point of view of the curriculum developer, who may be responsible for initiating change, and of administrators who conceive implementation along timelines or think of successive stages or levels of program use."³

Within this view, if implementation problems are encountered, 'objective' time can be administratively adjusted or reallocated accordingly.

The 'objective', technical-rational dimension of time is important, not only in the more obvious areas of efficient management or 'productive' use of time,⁴ to which I shall return later, but also in enhancing or inhibiting preferred educational changes which affect the character and orientation of teachers' work. Reviewing work on curriculum development and change, Fullan has concluded that the provision of small amounts of time can create real benefits.⁵ In the United States, Bird and Little have argued that time is particularly important for breaking down teacher isolation and developing norms of collegiality:

"The most important resource for improvement is time with colleagues: time for teachers to study, analyse and advance their practices: time for principals, assistant principals, department heads and teacher leaders to support improvement: time for faculties to examine, debate and improve their norms of civility, instruction and improvement. Considerably more time for these activities should be made in the normal school day, either addition or by the elimination of activities ... are less important."⁶

In the United Kingdom, Campbell has concluded that current "teacher working conditions...seem stuck on the anachronistic assumption that there is no need to provide time for curriculum development".⁷ Campbell has identified four kinds of time that were used to carry out and support school-based curriculum development in the ten schools he studied. These were group time, for
collaborative planning, conducted after school and perceived as a voluntary, moral commitment; snatched time of rushed consultation with other teachers during the school day; personal time out of school for individual reading, planning and attendance of courses; and other contact time (or preparation time) where teachers have scheduled time away from their class. He found that "other contact" or scheduled preparation time was extremely scarce in British primary schools.

In all these cases, increased amounts of scheduled time available for teachers outside the classroom are viewed as an exceptionally important condition of staff collegiality and curriculum development. Time here is a scarce resource worth supplying in greater measure to secure school improvement. However, while extensions and reallocations of teacher time away from class may indeed be conditions of increased collaboration and collegiality, they are apparently not entirely sufficient in this regard. Campbell has noted that on the rare occasions when preparation time was made available in British primary schools, it was used more for relaxation and individual preparation and marking than for collaborative planning and review. The preparation time study from which this paper arises is revealing similar findings in one of the boards, where such time is also used predominantly for individual rather than collaborative purposes. Moreover, even in the board committed to collaborative planning, not all teachers who were interviewed planned with their colleagues, and many of those who did preferred to plan at times other than their scheduled preparation periods.

In terms of being a technical means or resource for realizing educational purposes of staff collaboration and curriculum development -- for changing the nature and understanding of teachers' work -- time therefore has its limitations, however generously it is made available. Additional time is itself no guarantor of educational change. In that case, from the innovator's standpoint, there is, or
there ought to be, more to teacher time than its technically efficient allocation, planning and scheduling. How that time is used and interpreted also appears to be important. The contribution of dimensions of time other than the technical-rational one to the formation and reformation of teachers' work must therefore be considered.

2. **Micropolitical Time**

Once they are in place in a school, once they have taken on a certain external 'objectivity', scheduled time distributions between different teachers, grades and subjects are more than informative guides as to who is where and at what time. They are more even than rationally calculated, technically efficient ways of distributing time according to educational need within the limits of available resources such as rooms and staff expertise. Time distributions also reflect dominant configurations of power and status within schools and school systems. They have micropolitical significance.

The micropolitical significance of time scheduling in schools is made apparent in several ways. Within the curriculum, for instance, the higher-status subjects, most notably the 'academic' subjects, receive more generous time allocations, are granted more favourable scheduling slots and are more likely to be made compulsory than the lower-status, practical subjects. These time distributions, and the staffing needs they generate, both reflect and reinforce the strength and size of departments in the higher-status areas, creating more opportunities for senior appointments and the flexible working conditions which come with these. Time granted to certain curriculum areas therefore rebounds on time available to the teachers working within those areas. This simple fact of vested, material interests accruing to the teacher is one reason why the allocations granted to more favoured subjects are protected and defended so vehemently.
Within the wider domain of teachers' work, the way in which elementary teachers in particular have virtually all their scheduled time allocated to the classroom reveals that the dominant, overwhelming conception of teachers' work is classroom work. Classroom work forms the heart of teaching, as it is usually understood. Relatively speaking, all other activities are peripheral or supplementary by comparison. Time away from this fundamental core commitment -- to plan, to prepare, to evaluate, to consult -- is as much an indicator of status and power which permits the teacher concerned to be 'away', as it is of any specific educational need.

As one moves up the hierarchy of power and prestige in educational administration, one also moves further away from the classroom, from the conventional, core definition of what a teacher is. Principals and head teachers have more time away from class than vice-principals and deputy head teachers. They, in turn, have more time away than 'regular' teachers. Such differences are to be found within the regular teaching community, too, reflecting differences of status and power between its constituent parts. In this respect, the fact that high-school teachers receive more preparation and planning time than elementary teachers, or that intermediate teachers have until recently received more of this time than kindergarten or primary teachers, does not so much reflect substantial and substantive differences in planning and preparation needs as it reflects historically-grounded and sex-related differences between two very different traditions of teaching. One of these is deeply rooted in an elite, male-dominated, schoolmaster tradition devoted to the education of able pupils for university entrance, business and the professions. The other is rooted in a female-saturated elementary tradition devoted to the compulsory education and socialization of the young.\textsuperscript{11} Much of the struggle to secure increased time away from class for
elementary teachers therefore has to do with fundamental issues of parity and status within the teaching profession, with attempts to redress an historical legacy of inequity between the work of (usually female) elementary and (usually male) high-school teachers respectively.

The arguments surrounding increased preparation and planning time for elementary teachers are therefore only partly related to rational cases concerning actual preparation and planning needs. Such arguments are also bound up with competing status claims within the teaching profession, in particular with attempts to extend the definition of elementary teachers' work beyond the classroom. Time for the elementary teacher to be away from class is, in this respect, more than a technical issue of administrative adjustment or improved resourcing. It is an issue awash with micropolitical implications.

3. Phenomenological Time

In schedules and timetables, in timelines and time constraints, time can seem external to the teacher, as if it had an existence all its own. Yet there is also an important subjective dimension to time. Indeed, we shall see later that time is essentially and unavoidably a subjective phenomenon. What counts as and comes to be seen as objective time, even in the form of clock time, is in fact nothing more than an agreed intersubjective convention. Schedules and timetables which we may experience as external, constraining and unalterable are actually the product of subjective definition and decision-making. Structures of time are, in this sense, the outcome of human action, although once in place they also provide a context for such action. This is the fundamental principle of the structuration of time. It is a principle which leads us to question the apparent 'naturalness' of existing time allocations and distributions and to investigate their social origins and interpretation.
There is a further aspect to subjective time. This resides not in the very constitution of time itself, but runs alongside and is at variance with the ordered, linear schedules of 'objective' time. We might call this the phenomenological dimension of time. It is one where time is subjective, where time is lived, where time has an inner duration which varies from person to person. A person's inner sense of time may be at variance with clock time and may seem to 'fly' or 'drag' by comparison. People's senses of time may also be at variance with one another. Time often passes differently for us than it does for our fellows.

Subjective variations in our senses of time are grounded in other aspects of our life-worlds: in our projects, our interests, our activities, and the kinds of demands they make upon us. Our work, our occupations, the roles we have in life bundle together these projects, activities and interests in particular ways, so that our senses of time vary with the kinds of work we do and with the kinds of roles we take on in life. Shakespeare, whose writing gains much of its comedic and tragic force from his acute sensitivity to phenomenological differences of understanding and interpretation between his characters, has written with great perceptiveness on subjective differences in senses of time and the ways in which they are bound up with our wider life projects. In As You Like It, he presents this conversation between Rosalind and Orlando:

"Ros: I pray you, what is't o'clock?"

"Orl: You should ask me, what time o'day; there's no clock in the forest."

"Ros: Then there is no true lover in the forest; else sighing every minute and groaning every hour would detect the lazy foot of Time as well as a clock."

"Orl: And why not the swift foot of Time? Had not that been as proper?"
Ros: By no means, sir. Time travels in divers paces with divers persons. I'll tell you who Time ambles withal, who Time trots withal, who Time gallops withal, and who he stands still withal...

Orl: Who ambles Time withal?

Ros: With a priest that lacks Latin, and a rich man that hath not the gout; for the one sleeps easily because he cannot study, and the other lives merrily because he feels no pain; the one lacking the burden of lean and wasteful learning, the other knowing a burden of heavy tedious penury. These Time ambles...that.

Orl: Who doth he gallop withal?

Ros: With a thief to the gallows; for though he go as softly as foot can fall he thinks himself too soon there.

Orl: Who stays it still withal?

Ros: With lawyers in the vacation, for they sleep between term and term, and then they perceive not how Time moves.

As Shakespeare's lines suggest, subjective time varies with occupation and preoccupation. In this respect, the occupations, preoccupations and related time senses of administrators and innovators on the one hand, and ordinary teachers on the other, are very different.

Werner has usefully outlined some of these differences in time perspective and their importance for the process of curriculum implementation. For Werner, it would seem that administration and innovation are very much the guardians of 'objective' time.

"Program documents and the strategies for their implementation, together with the school's organization, assume a notion of time that is objective, rationalized and administrative in interest. As such, implementation is shaped by objective-time, not only as measured by the classroom clock, but also by the structure of the new program."15

Werner describes how teachers, within the context of their own classroom structures, experience time in a way that conflicts with the time assumptions built
into the administrator's innovation schedules. He presents data showing that, in the context of innovation, teachers feel pressure and anxiety because of excessive time demands, along with guilt and frustration because they are implementing the new program less quickly and efficiently than the administrative timelines require.

From the teacher's standpoint, new program requirements are imposed with little regard for the teacher's existing pressures and demands, and with little guidance as to how the new requirements can be integrated with existing practices and routines. To the teacher, the time expectations built into the innovation therefore seem excessive and a conflict of time perspective emerges between the teacher and the administrator. Here, the administrator appears insensitive to the teacher's subjective time perspective and the working conditions in which it is grounded. It is at this point that teachers' requests and demands for more time, additional planning time or relaxed innovation timelines are likely to be strongest.

There are, then, almost certainly major differences of subjective time perspective between administrators and teachers which have important implications for the management of educational change. A useful way of conceptualizing some of these differences is in terms of a distinction drawn by the anthropologist, Edward Hall, between monochronic and polychronic conceptions of time.16

According to Hall, people operating within a monochronic time-frame concentrate on doing one thing at a time, in series, as a linear progression through a set of discrete stages. They focus their energies on completing schedules and dispatching the business as well as they can within those schedules (rather like the way some doctors deal with long lists of patients). There is little sensitivity to the particularities of context or the needs of the moment within this time-frame. It is
the schedule and successful completion of the schedule that have priority. Indeed, those who exercise administrative control within a monochronic time-frame try to exert high control over timelines and schedules to ensure that the work of the organization is successfully completed (but they are, however, less precise about the task itself; about what would count as successful completion). Within such work, it is the completion of tasks, schedules and procedures that predominates over the cultivation of relationships with people. Monochronic time is pervasive throughout most Western cultures (though not Mediterranean ones); it overwhelmingly dominates the worlds of business and the professions; it is characteristic of large, bureaucratic organizations; and, perhaps most interestingly of all, it is most widespread among males. (See Figure 1.)

By comparison, within polychronic time, people concentrate on doing several things at once, in combination. Their interest is less in meeting schedules than in successfully completing their transactions (for the polychronic doctor, the next patient must wait until the current case has been adequately dealt with, however long that takes). Within polychronic time-frames, there is a heightened sensitivity to context, to the implications and complications of immediate circumstances and surroundings. Those who exercise administrative control from a polychronic perspective allow subordinates high discretion over time schedules, over when tasks are to be completed. However, compared to those operating within a monochronic frame of reference, they are likely to exert much stricter control over the description and evaluation of the task itself. Here, it is important not merely that a job has been completed but that it has been completed in line with initial intentions and definitions. Relationships predominate in the polychronic time-frame, rather than things. Polychronic time is more people-oriented than task-oriented. It is prominent in Amerindian and Latin or Mediterranean-style cultures;
it is most common within the spheres of informal relationships and domestic life (an intensive, densely packed sphere of multiple tasks and interpersonal relationships); it is more likely to be found in smaller, more personally-led organizations; and it is more usually found among women than it is among men.

Figure 1

**Monochronic and Polychronic Time Frames**

<table>
<thead>
<tr>
<th>Monochronic Time-frames</th>
<th>Polychronic Time-frames</th>
</tr>
</thead>
<tbody>
<tr>
<td>one thing at a time</td>
<td>several things at once</td>
</tr>
<tr>
<td>completion of schedules</td>
<td>completion of transactions</td>
</tr>
<tr>
<td>low sensitivity to context</td>
<td>high sensitivity to context</td>
</tr>
<tr>
<td>control over completion of schedule</td>
<td>control over description and evaluation of task</td>
</tr>
<tr>
<td>orientation to schedules and procedures</td>
<td>orientation to people and relationships</td>
</tr>
<tr>
<td>'Western' cultures</td>
<td>'unofficial' sphere of informality and domestic life</td>
</tr>
<tr>
<td>official sphere of business and professions</td>
<td>large organizations</td>
</tr>
<tr>
<td>large organizations</td>
<td>small organizations</td>
</tr>
<tr>
<td>male</td>
<td>female</td>
</tr>
</tbody>
</table>

Monochronic time-frames and the technical-rational conception of time to which they give rise have the advantage of ensuring that business gets done in large organizations where many separate activities require effective co-ordination and integration. However, Hall argues, organizations locked into monochronic time
tend to grow rigid and lose sight of their original purpose. They try to bulldoze through changes and impose timelines which are insensitive to the peculiarities of circumstance and context, and to the interpersonal relations which comprise them. They put more emphasis on the appearance of performance and change being achieved, rather than on the quality and character of the performance or the change itself. Most importantly of all, perhaps, they dehumanize the organization in fundamental respects, alienating members from themselves by restricting sensitivity to context. This is particularly true where a dominant, male administrative culture of a monochronic kind comes into contact with a polychronically-inclined female membership. Hall puts it like this:

"...modern management has accentuated the monochronic side at the expense of the less manageable and less predictable polychronic side. Virtually everything in our culture works for and rewards a monochronic view of the world. But the antihuman aspect of M(onochronic) time is alienating, especially to women. Unfortunately, too many women have "bought" the M(onochronic) time world, not realizing that unconscious sexism is part of it... Women sense there is something alien about the way in which modern organizations handle time... As soon as one enters the door of the office, one becomes immediately locked into a monochronic, monolithic structure that is virtually impossible to change."18

In education, the distinction between monochronic and polychronic time-frames has been applied interestingly to explanations of resistance to schooling among working-class youth. Here, McLaren has shown how, within their street culture, working-class adolescents are oriented to and immersed in rich, polychronic time-frames where many things happen at once in a densely packed, complicated and fast-moving set of interpersonal relationships. Such students, McLaren observes, resist the bureaucratically-controlled, monochronic world of the classroom, with its depersonalized processing of single tasks in linear, one-at-a-
Differences in time-frame between teachers and administrators, I want to propose, may be just as significant and illuminating as these time-related differences between teachers and their students.

The world of the school, and of the elementary school in particular, is a world where a predominantly female teaching force comes into contact with a predominantly male administration. As Apple in the United States, Curtis in Canada and Purvis in the United Kingdom have all pointed out, elementary teachers' work is for deep, historical reasons chiefly women's work. The control, administration and supervision of elementary teachers' work is in this respect overwhelmingly a process whereby supervising men manage the working lives of women. This heavily gendered process in the administration of teachers' work has important implications for the relationship of time to teachers' work and to educational change.

The elementary school teacher's world is profoundly polychronic in character. That is increasingly so as one moves from the higher to the lower age-ranges. It is a complex, densely packed world where the sophisticated skills of the teacher must be directed to dealing with many things at the same time. The simultaneous operation of several learning centres, runs on this principle, for instance. As Philip Jackson put it, the elementary school classroom has a paramount feeling of immediacy about it. It is a world deeply grounded in intense, sustained and subtly shifting interpersonal relationships among large groups of children, and between these children and their teacher. It is a world less punctuated by the bell and the timetable than the high school; a world where projects can be and must be pursued and interests and activities juggled according to the vicissitudes of the moment. The culture of the elementary school classroom -- a predominantly female culture -- is therefore a culture with high sensitivity to unpredictabilities.
and particularities of context, to the importance of interpersonal relationships, and to the successful completion of the tasks-in-hand. Characteristically, for the female elementary teacher, the requirements of the immediate context, the activities to be completed in that context, and the people to be catered for in that context, take precedence over implementation timelines, or requirements to fill up officially designated preparation time with administratively 'appropriate' work.

Conflicts and misunderstandings occur when this polychronic culture of female elementary teachers comes into contact with a monochronic culture of male administration which is insensitive to context. This can occur with inflexible imposition of implementation plans, for instance. Conflicts and misunderstandings can also arise when the administrative designation of preparation time for particular purposes like collaborative planning overlooks how inappropriate and incongruous those scheduled purposes might be for some teachers, given the particular contexts in which they work.

The colleague with whom one is scheduled to collaborate may not be personally amenable or compatible, for instance. The 'expert' (for instance, the special education teacher) whom a teacher is timetabled to meet may have less qualified expertise than the teacher who is meeting him or her. Teachers may find it more convenient and productive to collaborate after school or during the lunch hour rather than in scheduled preparation time -- a time they may prefer to use for other purposes like telephoning or photocopying when those facilities are not in heavy demand from other staff. All these examples, drawn from the preparation time study, indicate how teacher needs and demands generated from the particularities of the context may obstruct, undermine or redefine the purposes built into new administrative procedures and the time designations and allocations which accompany them. In this strained juxtaposition of monochronic and
Polychronic time-frames can be seen much of the reason for the apparent failure of administratively imposed reforms in education.

What are the policy implications of these intersubjective differences in time perspective between teachers and administrators? For Werner, what matters is that administrators become more aware of and sensitive toward the different time perspectives of the teachers their innovations will affect. "Program developers", he states, "can ask themselves what their work assumes about and implies for the teacher's time." More specifically, he argues, "once a project is underway, there needs to be sensitivity to lived-time and a willingness to continuously modify timelines, as well as an openness to criticism of the reasons for how time is allocated."24

Werner's recommendations are important here, insofar as they try to bring the two time-frames (lived and objective) closer together and to increase administrators' awareness and understanding of the complexities of teachers' work. However, I believe they do not go far enough, for two reasons.

First, they allow and do not challenge the implication that 'fixed', 'objective' or 'technical-rational' time has an existential or administrative superiority compared to 'lived', 'subjective' or 'phenomenological' time. They leave open the implication that teachers' subjective time perspectives are important but also imperfect, to be accommodated and incorporated by a more caring but ultimately condescending administration. This begs important questions about the validity, relevance and practicality of time perspectives grounded in one frame of reference (an administrative one) for organizing the details of teachers' work which are grounded in another.

Second, the appeal to heightened administrative sensitivity concerning time issues begs the question of how and why monochronic time-frames become
administratively dominant in the first place. It does not address the significant possibility that issues concerning the control of teachers' work may be located not just in the conflict between a 'superordinate', monochronic time perspective which happens to be the domain of administration, and a 'subordinate' polychronic time perspective which happens to be the domain of ordinary teachers; but that such issues may be located in the very principles and constitution of monochronic time perspectives themselves as they are developed and applied through apparatuses of administrative control.

The first matter can be dealt with by reference to the physics of time which challenges any spurious objectivity that might be claimed by the advocates and defenders of particular time perspectives. The second poses important questions about the sociopolitical nature of time in organizational settings; about the reasons why monochronic time perspectives become administratively dominant in the first place. I shall turn to these next.

4. **Physical Time**

The important baseline from which to commence evaluations of the relative merits of different subjective senses of time is Einstein's widely accepted principle that physical time is relative. There are no absolute fixed points in space or in time. In this sense, objective time as such has no independent physical existence. It is a human construction and convention around which most of us unquestioningly organize our lives.

In his brilliant and accessible explanation of theories of relativity, Stephen Hawking, the occupant of Newton's chair as Lucasian Professor of Mathematics at Cambridge, describes how time is related to the speed of light. For one thing, he explains, time slows down as one approaches the speed of light. For another,
time appears to run more slowly when it approaches a massive body like the earth. Indeed, Hawking describes experiments conducted with clocks mounted at the top and bottom of water towers which resulted in the clocks nearer the earth running more slowly.26

I will return to and expand upon the second principle shortly because, as an analogy, it has immense implications for the sociopolitical dimension of time. The simple point I want to establish for the moment is that concerning the physical relativity of time. This is exceptionally important for, given that physical time is truly relative, then defenders of 'objective', 'monochronic' or 'technical-rational' time cannot appeal to the natural laws of the physical world as justification for the worth and superiority of their own particular time perspective. Claims advanced in favour of or against the monochronic time-frames of administrators must therefore be evaluated on other grounds -- including social and political ones.

5. **Sociopolitical Time**

Monochronic time-frames prevail administratively in education not because they accord more readily with the laws of the natural world, nor because they are necessarily more educationally effective or administratively efficient. They prevail, rather, because they are the prerogative of the powerful. In conflicts between different time perspectives, just as in conflicts between other subjective world views, Berger and Luckmann's principle most usually applies that "he who defines reality is he who has the biggest stick."27 In this respect, the sociopolitical dimension of time, the way in which particular forms of time come to be administratively dominant, is a central element in the administrative control of teachers' work and of the curriculum implementation process. Within the modern realizations of this time dimension, two complementary elements appear to be especially important: separation and colonization.
Separation

An important part of the sociopolitical dimension of time is the separation of interest, responsibility and associated time perspective between the administrator and the teacher. A return, by analogy, to Hawking's description of the physical properties of time will illustrate what is at issue here:

"Another prediction of general relativity is that time should appear to run slower nearer a massive body like the earth. This is because there is a relation between the energy of light and its frequency (that is, the number of waves of light per second): the greater the energy, the higher the frequency. As light travels upwards in the earth's gravitational field, it loses energy, and so its frequency goes down. (This means that the length of time between one wave crest and the next goes up.) To someone high up, it would appear that everything down below was taking longer to happen."\(^{28}\)

Although it is always advisable to be cautious when transposing propositions from the physical to the social world, the transfer of this particular time principle leads to some potentially fruitful insights for the field of education. In particular, it suggests the following prediction for the process of implementation and change:

that the further one is away from the classroom -- from the densely packed centre of things, as it were, then the slower that time will seem to pass there.

This principle may well explain the widely documented impatience that administrators have with the pace of change in their schools. From their distant standpoint, they see the classroom not in its densely packed complexity, in its pressing immediacy, as the teacher does. Rather, they see it from the point of view of the single change they are supporting and promoting (and on which their own career reputations may also depend) -- a change which will tend to stand out from all the other events and pressures of classroom life. Administrators see the classroom monochronically, not polychronically. And, because of that, the changes they are initiating and supporting there seem to move much too slowly for their liking.
For classroom teachers, meanwhile, the pace of change appears to be far too quick. In their position, at the very centre of things, where they may have to deal with multiple changes, not just one (a new grade assignment, a new social studies program and a collaborative planning initiative, perhaps), and where they must do all this while still having to cope with the continuing wide-ranging constraints of classroom life, administrative timelines for change are often seen as too ambitious, as unrealistic. For the teacher, the classroom is viewed and experienced polychronically, not monochronically. The tendency, therefore, is to simplify change or to slow it down, so that the complicated, polychronic classroom world can be kept within manageable bounds. This helps explain Werner's finding that teachers often try to accommodate the processes of innovation by working slowly:

"Working slowly in the classroom is the result of trying to simultaneously grasp w... a program involves, sorting out doubts about how it may best be used, and trying to do an adequate job under such circumstances."

From this clash between the time perspectives of administrators and teachers emerges a curious and ominous paradox. The quicker and more 'unrealistic' the implementation timeline, the more the teacher tries to stretch it out. The more the teacher slows the implementation process down, the more impatient the administrator becomes and the more inclined he or she becomes to quicken the pace or tighten the timelines still further, or to impose yet another innovation, one more attempt to secure change. This adds still further pressures and complexities to the teacher's polychronic world, inducing yet more tendencies to slow down the pace of these additional requirements! And so on! And so on!

The result is what Apple calls the intensification of teachers' work: a bureaucratically driven escalation of pressures, expectations and controls concerning what teachers do and how much they should do within the school day.
Much of that somewhat self-defeating process of intensification comes from the discrepant time perspectives and understandings that are embodied in the sharp and widening divisions between administration and teaching, planning and execution, development and implementation.

The process of separation gives rise not to minor misunderstandings between administrators and teachers on the question of time and work: not to easily remediable problems of interpretation or gaps in communication between them. Separation, rather, creates deep-rooted and endemic differences in time perspective between two groups whose intuitive feel for, sense of and relationship to the daily demands of classroom life are very different. Therefore, the important policy question posed by this principle of separation between administrators and teachers and its relationship to their different perspectives on time is not one concerning needs for greater communication and understanding between the two groups. The key policy question, rather, concerns how great a distinction and how strong a boundary there should be between administrators and teachers in the first place. Should administrative planning be strictly separated from the execution of those plans in the classroom? Should administrators be responsible for development and teachers only for implementation of what has already been developed? If teachers were given a stronger role in curriculum development and time scheduling at school level, for instance, might this then give rise to more realistic, polychronically-sensitive timelines for implementation and improvement?

What are at stake within the sociopolitical time-frame, then, are not minor technical matters of communication and understanding between administrators and teachers, but the fundamental structures of responsibility for curriculum development and the place that working teachers should occupy within those
structures. What is at stake, no less, is the empowerment of teachers to take on responsibility for curriculum development, in addition to their current technical obligations regarding implementation.

(ii) **Colonization**

If separation drives the worlds of administration and teaching apart, colonization brings them back together -- but in a particular form. Colonization is the process where administrators take up, or 'colonize' teachers' time with their own purposes. It is a second important aspect of the sociopolitical dimension of time.

The administrative colonization of teachers' work is most noticeable and most significant where the private, informal 'back regions' of teachers' working lives are taken over by administrative purposes, converting them into public, formal 'front regions'. In this way, configurations of time and space that used to mark a domain of private relaxation and relief increasingly mark a domain of public business and supervision.

It was the late Erving Goffman who defined and demarcated 'front regions' and 'back regions' in social life and described the role they played in occupations which dealt with the public. For Goffman, front regions were places of performance where people were, in a sense, 'on stage' in front of their clients, the public or their superiors. When working in 'front regions', be it in the dining area as a waiter or waitress, in the showroom as a salesperson or in the classroom as a teacher, people have to be careful to monitor and regulate their conduct: to 'keep up appearances'. 'Backstage' areas, by comparison, provide relaxation, relief and withdrawal from the stresses and demands of these 'frontstage' performances. Be they restaurant kitchens, factory washrooms or school staffrooms, back regions
allow people opportunity to 'let everything hang out', as it were. Goffman put it as follows:

"The backstage language consists of reciprocal first naming, cooperative decisionmaking, profanity, open sexual remarks, elaborate griping, smoking rough informal dress, 'sloppy' sitting and standing posture, use of dialect or sub-standard speech, mumbling and shouting, playful aggressivity and 'kidding', inconsiderateness for the other in minor but potentially symbolic acts, minor physical self-involvements such as humming, whistling, chewing, nibbling, belching, and flatulence."33

Back regions may be tightly bounded in time and space -- the staffroom, at recess, for instance -- and may be firmly insulated from contact with or observation by clients in the front region (few staffroom doors are left open!). But this need not necessarily be so. People may sometimes move into backstage mode within what is ostensibly a frontstage setting. Teachers who come out of their classroom doors and pass a few words of exasperation across the corridor before going back to their 'performances', teachers who laugh and joke together about the parents or the kids while on recess duty -- these are examples of backstage modes being invoked in frontstage settings.

To the casual observer, back-region behaviour may seem immature, wasteful or unprofessional. And school administrations which seem to permit and allow more than minimal time and space for such behaviour (through the provision of extra 'free periods' or 'preparation time', for instance) may be seen as officially condoning wastefulness and unprofessionalism among their teachers. Such judgments, however, would miss essential points about the important purposes and functions fulfilled by back regions in most social settings, including teaching.

First, back regions assist and allow for the relief of stress. The tact, the control, the restraint required 'onstage' in the classroom, in official meetings with one's colleagues, or in the presence of one's superior(s), can be relaxed here.
Humour, by-play, diversion on to non-school topics of conversation, moral support when difficulties have been encountered with management, with students or with their parents -- all these help the teacher restore and reconstruct him- or herself for the next set of 'performances'.

Second, back regions foster informal relations that build trust, solidarity and fellow-feeling among teachers. Through that, they provide an interpersonal platform on which the more formal business and decision-making of school life can be built without fear of mistrust or misunderstanding.

Third, back regions bounded in time and space (like staffroom 'break' time) give teachers a measure of personally controlled flexibility in managing the polychronically packed and complex character of their working life. They allow teachers opportunity to stand back from front-region commitments, as necessary, or to support and extend these commitments, as appropriate. In the latter case, by using staff lunch-time, say, to photocopy materials, telephone parents, mark assignments or meet with colleagues, for example, teachers are conducting 'front-region' activities or working in a 'front-region' mode within what is essentially a 'back-region' setting. What remains fundamental to this setting, as a 'back-region' one, though, is the teachers' flexibility and control over how such time and space is to be used -- be it in 'back-region' mode or 'front-region' mode -- according to the necessities of the moment in their polychronic and rapidly changing work environment.

Evidence being gathered in the current study of teachers' use of preparation time, together with broader literature on changing patterns of professional development and work demands among teachers, suggests that teachers' work outside the classroom -- in particular, the way that time and space are being used there -- is becoming a highly contested region between teachers and administrators.
in terms of its front- and backstage properties. For preparation time, in particular, a key issue is whether teachers will retain discretion to use it in 'back region' or in 'front region' ways, as they see fit, given the needs and demands of the immediate context. Or will such time be colonized by administration for its own purposes, thereby eroding both the 'backstage' characteristics of the region and teachers' discretion in the use of time and space within it?

Evidence being gathered in the study suggests that in a number of schools non-contact time is increasingly being colonized by administrative purposes, converting private back regions into public front ones, subjecting teachers to increasing administrative surveillance.

Teacher interviews in the study tend to emphasize the importance of discretion and flexibility in the use of preparation time and its integration with the rest of their work outside the classroom. Stress may sometimes make teachers feel it is better to unwind now and plan later. Easy availability of the telephone or the photocopier (compared to the long queues for these things at lunch) may mean it is often best to meet with colleagues on other occasions than scheduled preparation time -- after school, for instance. The flow of the program may mean that planning meetings scheduled in preparation time may need to be used only in some weeks, not all. Flexibility on these counts matters for most teachers.

Principals sometimes see things differently. Some principals have reported they regard the conduct of 'personal business' like telephoning the garage as an illegitimate use of preparation time, or have proudly proclaimed they never see their teachers just having a coffee during that time (with similar implications of illegitimacy). Some principals require particular teachers to meet as a regular commitment for specified planning periods, and in some cases designate particular rooms for this purpose. Add to this, teacher reports of increasing parental
presence in elementary-school staffrooms (which makes 'back-region' behaviour more problematic) and the impact of anti-smoking legislation in Ontario schools, which is driving many teachers away from informal association with their colleagues at lunch and break times into the car-park, the shopping plaza or, in one case, the janitor's room -- and there is more than a suggestion of a trend towards the administrative colonization of teachers' time and space in many areas.

Now, it should be said that this trend is not universal. It is stronger in the board committed to the development of collaborative planning, for instance. It seems stronger where there are administratively driven commitments at board level to 'planned' change. The trend is also not supported by a number of principals who defend the teachers' right to relax in preparation time if the stress generated in the previous lesson requires it, or to use such time for personal business if it is important for teachers to deal with that (and recognizing that the services they need to contact may not be available later). A number of principals are also protective of teachers' discretion to use preparation time as they see fit, though they may release certain teachers together at the same time to widen the possibilities for consultation, should teachers want to take them up.

Nevertheless, developments in the administrative colonization and compartmentalization of teachers' time and space are substantial and significant. These developments are driven by concerns for productivity in and control over workers' use of time -- concerns which have been in existence since the growth of time-related management strategies in early industrial capitalism. Here, time was to be regulated, controlled, compartmentalized and broken down, to ensure it would be used 'productively' and not frittered away on unimportant or wasteful activities. Time was to be spent, rather than passed. Time, indeed, was 'money'.

As Giddens suggests, though, the administrative colonization of time and space has
increased and become more sophisticated in recent years with the expansion of forms of surveillance within the modern state.\textsuperscript{36} Such surveillance entails not only direct control over, but also increasing disclosure or making visible of what had hitherto been the private plans, thoughts, reflections and intentions of its subjects. With the growth of administrative surveillance, what had previously been private, spontaneous and unpredictable becomes public, controlled and predictable.\textsuperscript{37} The colonization and co-ordination of 'back-region' activity in work settings, including teaching, is part of this swing to surveillance, this tendency to fill up and regulate the informal and potentially 'unproductive' or even 'counterproductive' areas of people's working lives.

All this should make us watchful and properly sceptical about apparently benevolent, administratively supported moves to increase the amount of scheduled non-contact time available to teachers, however well-intentioned these moves actually are. A particular concern is that many teachers (and their federations) may be at risk of becoming trapped in a Faustian bargain -- where, for the worldly riches of 'extra time', they trade something of their professional souls (their control and discretion over how such time is to be organized and used) and their private selves (their access to the spontaneous camaraderie of 'back-region' teacher culture). This is not to undermine or minimize the importance of additional non-contact time for teachers. In technical-rational terms, it provides a necessary (if not a sufficient) condition for extending and redefining existing understands of teachers' work. And micropolitically, it also addresses important status and equity issues across the profession. But the key issue for the federations and for teachers more widely may ultimately be not \textit{how much} non-contact time is provided, but how that time is to be used as well as who is to control that use.
Conclusion

Time is relative. Time is subjective. Subjective senses of time, I have argued, tend to differ in important ways between teachers and administrators. Administrators, however, have the greater power to make their particular time perspectives stick. Indeed, so firmly can they ingrain their time perspectives and procedures into present administrative structures and routines that administrative time (monochronic, objective, technical-rational time) can come to be regarded as the only reasonable, rational way of organizing time. Administratively driven, technical-rational time, that is, can become hegemonic time — so taken for granted that to challenge it is not to counterpose legitimate alternative time perspectives but to threaten the very foundations of administrative efficiency itself. What we are witnessing in much current educational reform and associated changes in teachers' work are such impositions of administrative time perspectives, with all their practical implications, on the working lives of teachers. We are, in effect, witnessing the growing administrative colonization of teachers' time and space, where monochronic, technical-rational time is becoming hegemonic time.

Most Western educational systems are currently seeing an expansion of bureaucratic control and standardization in the development and delivery of their services. With only a few exceptions, control over curriculum, over assessment and increasingly over the teaching force itself is becoming more centralized and also more detailed. This is creating a widening breach between administration and teaching, between policy and practice, between the broad process of curriculum development and the technical details of program implementation. An irony for teacher development is that teachers are being urged and sometimes required to collaborate more, just at the point when there is less for them to collaborate about.
Driven by concerns for productivity, accountability and control, the administrative tendency is to exert tighter control over teachers' work and teachers' time, to regulate and rationalize it; to break it down into small, discrete components with clearly designated objectives assigned to each one. Preparation time, planning time, group time, individual time or, in Britain, 'directed time' -- all substitutes for what was hitherto understood as 'free time', 'release time' or 'non-contact time' -- are symbolic indicators of this shift. This administrative tendency in the definition and control of time is rooted in a monochronic and generically male world of market relations -- geared to increasing productivity, the elimination of 'waste' and the exertion of control and surveillance.

This monochronic time perspective is divorced from and in conflict with the polychronic perspective of many teachers. The polychronic perspective, with its emphasis on personal relationships more than on things, and its flexible management of simultaneous demands in the densely packed world of the classroom rather than the one-at-a-time fulfilment of linear objectives, poses problems for the implementation of administrative purposes. It creates barriers to implementation, resistance to change.

As the gap widens between administration and teaching, between development and implementation, so too does the difference in administrators' and teachers' time perspectives. Perceptions regarding the pace of change diverge more and more. Administrators compensate by strengthening their control (increasing the gap between administration and teaching) and by multiplying administrative demands (increasing the expectations and compressing the timelines for change). With these things come reinforced resistance to change and implementation among the teaching force: to the intensification of teachers' work. As they get caught up in the spiral
of intensification, bureaucratically driven initiatives to exert tighter control over
the development and change process become self-defeating.

The solution to this impasse, it seems to me, is not to be found in appeals to
more sensitivity and awareness among administrators as they devise and develop
new programs and timelines for change. The time-related misunderstandings between
administrators and teachers are endemic to the distance there is between their two
lifeworlds -- a distance which appears to be increasing. It would seem more
fruitful to explore solutions which question the strength of the divisions between
administration and teaching, between development and implementation -- and which
question the bureaucratic impulses that support such divisions. In particular, I
suspect it would be more helpful to give more responsibility and flexibility to
teachers in the management and allocation of their time, and to offer them more
control over what is to be developed within that time. In doing this, we would be
recognizing that teacher development is ultimately incompatible with the
confinement of teachers to the role of merely implementing curriculum guidelines.
We would be recognizing that teacher development and curriculum development
are closely intertwined.

The ultimate implication, it seems to me, is that once we acknowledge what
time means for the teacher, there seems a strong case for giving time back to the
teacher both quantitatively and qualitatively and for giving the teacher
educationally substantial things to do with that time. If we do this, then time may
no longer be the enemy of teachers' freedom, but its supportive companion.
Notes


13. Ibid.


17. Derived from Hall, op. cit., Note 16.

18. Ibid., p. 54.


26. Ibid.


29. This phenomenon is sometimes referred to as compound innovation (Hargreave, A., Curriculum and Assessment Reform, Milton Keynes, Open University Press and Toronto, OISE Press, 1989) or multiple innovation (Ball, S., Micropolitics of the School, London, Methuen, 1987).


33. Ibid.


38. I am grateful to Saundra Fish for making this point to me.


40. As designated, in the latter case, under the new teachers' contract of 1987.