Project Leadership: A Question of Timing

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Abstract
Project managers face a profession coupled with a number of unique challenges. Tasked with the successful implementation of their project, these leaders are given a mandate to operate their project teams as de facto profit centers for the organization as a whole. One key skill that successful project leaders need to master is the ability to attune their temporal skills to the nature of the work they are called upon to perform. Different aspects of their duties require appropriate and varying time orientations. This paper discusses the development of a model of time orientation, which argues that project leaders must possess or develop a number of temporal skills that match the various tasks and situations they are called upon to address. Finally, we posit some roles that project leaders must undertake and the desirable temporal alignment likely to enhance their chances for success.

Keywords: project leadership; temporal alignment; polychronicity

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One of the most increasingly common activities in modern corporations is the use of project teams for a variety of organizational operations, including new product development, system implementation, and so forth. Project management, as a number of recent business periodicals have noted, has become an increasingly popular process by which organizations seek to manage the twin goals of efficiency and effectiveness through creating products and services capable of offering significant profit or process improvement while keeping a tight rein on budgets and other company resources ("The Corporate Jungle Spawns a New Species: The Project Manager," 1995). Indeed, it is because of the incredible challenges project managers routinely face that research has begun to increasingly characterize the roles of successful project managers (Adams, 1994; Einseidel, 1987; Pettersen, 1991; Pinto & Slevin, 1989).

The wide variety of demands that project managers routinely face in running their projects is often daunting. A growing body of literature on project leadership suggests that effective project managers must function as visionaries, technical experts, motivators, team builders, negotiators, sales people, and so forth (Einseidel, 1987; Pinto & Kharbanda, 1995; Posner, 1987). The common theme running through the majority of the research into project management and leadership suggests quite clearly that successful project managers are those individuals who are able to master the various, sometimes competing, demands their jobs make on them.

All of us are familiar with examples of project managers who fail because they are fundamentally unable to strike an effective balance between the roles they must undertake. For example, the detail people who get caught up in the day-to-day minutia of project management that they cannot articulate a clear vision of the project for their team. The result, many times, is a project spinning out of control because no one involved understands its overall goals. On the other hand, is the case of the "visionary" who gets caught in the trap of adopting a strategic outlook and ignores essential tactical operations—dealing with the myriad daily problems and issues that can slowly sink a project through inefficiencies and delay. It is based on examples such as these that we would note an additional reason for project success or failure: The ability (or inability) of project managers to use the temporal skills that complement the ongoing activities their projects are experiencing. The term "temporal skills" refers to specific project management skills that relate to the past, present, and future.
This paper explains the relationship between successful project leadership and the importance of these individuals developing appropriate and complementary temporal skills for their work. There must be an "attunement" between project leaders' temporal skills and the nature of the tasks they are engaged in on the job. For example, as we will demonstrate, project team leaders who are "forward looking" or focused on future events will likely develop and implement effective contingency planning as a matter of course. On the other hand, this same future orientation that serves their contingency planning ability so well often makes it difficult for them to deal with real-time issues related to implementing their projects. In this paper, we address some of the temporal skills needed for various tasks performed by project leaders, their effect on successful team leadership, and offer some guidelines for finding an attunement between time orientation and the demands of the project management job.

**Temporal Alignment and Project Leadership**

Research on the psychology of time has suggested that each individual has a basic orientation toward time that affects that individual's interests and abilities (Cottle, 1967; Daltrey, 1982; Das, 1986; Schiller, 1990). Temporal alignment refers to a basic orientation toward the past, present, and future that a leader brings to an organization (Thoms & Greenberger, 1995). The practical implications of this theory suggest that the characteristics that make up this temporal alignment determine the leader’s ability to perform the project tasks that require time-oriented skills, including such diverse tasks as creating a vision for the project as well as daily problem solving, planning, and team building. The key point is that an individual’s temporal alignment affects choice of tasks and situation as well as the person’s ability to develop and use the temporal skills necessary at various levels of project leadership. Different temporal skills are needed for different tasks and activities performed by project leaders. Therefore, it is vital that the temporal alignment or time orientation of a project manager in a given situation fits the requirements of the situation. When this attunement is achieved, project leaders are much more likely to effectively manage themselves as well as the immediate demands they are facing.

Temporal alignment may comprise a number of cognitive elements. Thoms and Greenberger (1995) suggest that some of these constructs may be timeline orientation, future time perspective, time span, and time conception. While this list is not all-inclusive, it represents a "best guess" at what dimensions may make up temporal alignment based on previous psychological research. Let’s consider each of these component pieces (see Table 1):

- Timeline orientation refers to the temporal context or space in time to which an individual is oriented. People tend to visualize themselves to varying degrees in the past, present, or future (Cottle, 1967). Most of us see and think of ourselves most frequently in one of these spaces.
- Future time perspective describes the extent to which the future drives current behavior. The higher the future time perspective, the farther into the future the individual is thinking and planning. This future time perspective can have a tremendous impact on driving present behavior (Daltrey, 1982; Daltrey & Langer, 1984).
- Time span is the amount or block of future time one is capable of capturing in one's mind (Jaques, 1986). Some of us have the capacity to deal with time spans of only weeks or months, while others are capable of conceptualizing time spans stretching out into many years. An argument could be made that more effective project leaders are often those who can visualize increments of three to five years in order to maintain a focus on the final project result regardless of its current state of development.
- Time conception is a set of beliefs about the nature of time and life, typically taking one of two forms, cyclical or linear. A cyclical conception of time is a belief that life is a cycle. Life events repeat themselves in cycles related to seasons, generations, and trends. This belief is commonly found in agricultural societies, but can also be found in modern business environments. Traditionally, we think of people with this belief as past oriented,
Temporal Alignment—One’s basic orientation toward the past, present, or future made up of a variety of psychological constructs or biases.

Timeline Orientation—The temporal context or space in time (past, present, or future) in which an individual most often “sees” himself or herself.

Future Time Perspective—The extent to which the future drives an individual’s current behavior.

Time Span—The amount of future time one is capable of capturing in one’s mind.

Polychronic/Monochronic Preference—A preference for doing more than one thing at a time, or one thing at a time.

Time Conception—A set of beliefs about the nature of time and life, cyclical (life repeats itself), or linear (life proceeds in a straight line, always forward).

Temporal Skills—Time-related skills and abilities needed to perform specific tasks.

Time Warping—Cognitively bringing the past or future closer to the present.

Creating Future Vision—Creating an image of a project in the future.

Chunking Time—Creating units of future time to be used for scheduling.

Predicting—Generating estimates of what will occur in the future.

Recapturing the Past—Remembering and using information from the past.

Attunement—When the leader’s temporal skills match the needs of the position, the organization, and the situation.

| Table 1. Glossary of Temporal Terminology |

but recent research indicates that people with a cyclical conception of time are as likely to be as future oriented as those with a linear conception (Schiller, 1990; Wall & Arden, 1990). A linear conception views life as one continuous line with the future ahead and the past done forever. This conception is typically found in Western industrialized cultures. In addition, time is viewed as a tangible resource that, if wasted, cannot be recovered.

To the above constructs suggested by Thoms and Greenberger (1995), we would add polychronic/monochronic preference. Polychronic preference is the predilection to do or consider multiple subjects at the same time (Bluedorn, Kaufman, & Lane, 1992). This preference appears to be culturally based. Most Americans are thought to be monochronic—preferring to do one thing at a time. However, in many cultures, it is expected that the individual will be polychronic, considering many activities and ideas simultaneously. While Thoms and Greenberger did not consider this dimension in their original work, from a project management perspective, polychronicity is a vital skill for project leaders to develop. Projects, by definition, represent a series of complex or interrelated activities requiring that attention be paid to multiple operations in various stages at the same time.

Temporal Skills

Some project leadership tasks require a category of skills that Thoms and Greenberger (1995) label temporal skills. Temporal skills are specific past, present, and future time-related skills and abilities needed by leaders to perform specific tasks. These are skills that are not found in leadership books because it is typically assumed that all leaders naturally possess them. Skills that could be included on this list are time warping, creating a future vision, chunking time, polychronicity, predicting, and recapturing the past. Thoms and Greenberger suggest that due to their temporal alignment, some project leaders will have these skills and others will not. Those who do not have these skills may not perform some leadership tasks effectively. They must either try to develop necessary temporal skills or look for aids to help them perform specific tasks.

Time Warping. Leaders often refer to the history of an organization when giving speeches intended to strengthen the corporate culture—usually stories about how adversity was overcome, the early founders, or the organization’s place in history. Time warping refers to one’s ability to bring the past or future closer to the present. Effective project leaders must also be able to think and talk about the future of a project to inspire and direct the behavior of various project stakeholders,
including top management, managers of other functional departments, and members of the project development team. This pulls the past or future closer to the audience in the present and makes it more likely that they will behave appropriately. An implication of this model suggests that leaders who are oriented toward the past may not be able to warp to the future and leaders who are oriented toward the future may not be able to warp to the past. Consequently, project managers with a timeline orientation to the past and low future time perspective may not be able to talk about the project in situations where it be would helpful. For example, they might find it difficult to present the strategic uses for a project with which they are currently involved. Those with a linear conception of time may not refer to the past because they would not see the relevance.

Creating a Future Vision. Individuals vary in their ability to create a cognitive image of the future of their organizations. Creating a future vision is related to the imaging ability. Initially, an organizational vision must exist in the mind of the leader before it can be communicated to followers. Humans vary in their ability to develop images—specifically we vary in the amount of vividness, or detail, we can imagine and in our ability to control images. Research (Thoms & Greenberger, 1998) has shown that visioning ability is positively correlated with future time perspective. It is important to note that the visioning is not the same as predicting. Effective organizational visions present new paradigms and provide direction for strategic planning. For example, when given charge of a product development team, a critical quality for successful project team leaders lies in their ability to see an innovative final product in the midst of the day-to-day minutia of development difficulties. It is this "eyes-on-the-prize" mentality that gives the rest of the project team a rallying point enabling them to rise above reactive, details management. Project managers must also be able to cognitively manipulate their image of the outcome as the project evolves.

Chunking Time. The creation of units of time in order to schedule projects and the completion of tasks, organization of work, and strategic planning is referred to as chunking time. A critical skill of successful project leaders is their ability to take segments of future time and break them into small manageable parts. Consequently, chunking time is best measured in terms of the project leader's planning and scheduling techniques.

Polychronicity. An individual's ability to do and think about multiple things (activities or events) at the same time is referred to as polychronicity. Projects, by nature, are run within narrowly constrained windows of time; for example, they often operate with an end-point already established at the beginning of the process. One feature of this time frame is that it does not allow for a simple, linear progression of project activities. Instead, in almost all cases, activities will need to be scheduled to run parallel with each other. The project leader must be able to mentally capture and divide blocks of future time and coordinate events and activities that may occur simultaneously. In order to successfully complete these types of tasks, the leader would need a polychronic orientation. Because it is culturally based, this orientation is difficult for Americans to internalize (Bluedorn, Kaufman, & Lane, 1992). Its mastery is vital for successful project management because project activities are by nature polychronic. This forces successful project managers to constantly operate on a number of tactical levels simultaneously.

Predicting. The generation of estimates of what will occur in the future is referred to as predicting. Accurate predictions about the future require a leader to use intuition. Simon (1987) suggests that intuition requires individuals to remember and reflect on past events and then to use the patterns that relate to these past situations and information about the significance of each pattern. When recognized, these patterns can help the leader generate estimates about what will happen in the future. Although it may sound counter-intuitive, predictions about the future require accurate reflections on the past. In situations where accurate predictions are needed (e.g., when resources will be required to support a project activity), project leaders must be able to reflect on the past and cognitively process the patterns of past events. In this way, the past becomes our guide for anticipating future needs or the immediacy of addressing potential problems or bottlenecks. The paradox is that if an individual relies too heavily on past experience, the person may fail to generate sufficient accurate alternatives when predicting what may occur in the future (Johnson & Sherman, 1990; Minzberg, 1994).

Recapturing the Past. Performance appraisal is a task that requires a project leader to reflect back on past performance, summarize it, and provide feedback to followers. Recapturing the past is one of the skills used to monitor performance and solve problems. Problem solving also requires the leader to go back and remember previous behavior and experiences in order to determine the cause of the problem. If a project manager has routinely experienced problems with project support from recalcitrant departments or functional managers in the past, it makes sense to factor those events into future attempts at implementing a new project and planning how best to generate its acceptance and use. Some leaders with a strong orientation toward the present or the future may not do these tasks as well as leaders who are more oriented toward the past and spend time thinking about and reflecting on past behavior and events.

Tasks and Situations
One's temporal alignment affects choices of tasks and situations. Individuals who have an orientation toward
the future will pursue jobs in future-oriented industries and organizations. Within a project assignment, they will prefer to work at aspects of the project that allow them to plan and work toward the future. They will enjoy creating a vision of the future, and focusing on project outcomes and their expected impact. On the other hand, they may not like to perform tasks like performance appraisal, budgeting, and problem solving that require them to reflect on the past. Individuals who have an orientation toward the past may be drawn to project activities that require them to consider past events. These individuals may be very good at going back to recapture information to find the cause of problems or to provide feedback on past performance. However, when invited to project planning sessions, these people may be uncomfortable, at best, and incapable of effectively planning, at worst. As project managers, these individuals may, as a matter of course, routinely avoid planning sessions, preferring to operate in a short-term, fire-fighting mode that fits their preferred time orientation. The choices that individuals make about tasks within a project undertaking are both realistic and appropriate until something happens that requires the individual to use a temporal skill that is undeveloped due to temporal alignment.

One of the events that can disrupt an individual's time orientation is a promotion. For example, following the successful completion of a project, if a member of the project team is promoted to project team leader for a new undertaking, the daily demands will change and the work will probably shift toward a more even balance between past- and future-oriented activities such as vision creation and strategic planning. What is suggested by this is that a newly promoted project leader who has an orientation toward the past may have performed very well at the lower level, in a supporting role as a member of a project team, but will be unable to meet the demands of a leadership role. This may explain, in part, why some project leaders still do not create organizational visions despite the overwhelming evidence indicating its importance.

Another intervening event in organizations is change. As organizations and competitors become increasingly dynamic, the marketplace becomes global, and technology rapidly develops, the need for faster time-to-market response is ever more compelling. Within this environmental framework, the need for project leaders with an orientation toward the future is obvious. Slevin and Covin (1990) have noted the need for individuals and organizations to match their entrepreneurial style to both their corporate structure and the external environment. An example of their findings lies in the frequent startup of new project teams to react to or anticipate future external or internal needs through new product or system development. In the past, effective leaders, like great chess players, had the luxury of simply pondering and reacting to the moves of their competitors and making accurate predictions about a future that looked very much like the present. We have since learned that the future of organizations can be shaped by forward-looking leaders who create new paradigms. Project leaders can create the future instead of reacting to it.

Attunement occurs when the project leader's temporal skills match the needs of the position, the organization, and the situation (see Table 2). One could argue that under these circumstances, the project leader is "in sync." Thoms and Greenberger (1995) suggest that the leader will be most effective when this is the case and will be ineffective or less effective when it is not.

**Practical Implications of the Model**

Table 2 demonstrates a number of time-related project leadership tasks. We have structured these tasks in terms of past-, present-, and future-oriented activities. Note that one of the features of project leadership lies in the fact that these individuals are forced by the nature of their jobs, to operate in each of the three time-oriented modes. Project leaders need the past orientation required to engage in project problem solving and team member evaluation. Likewise, they must adopt a present time orientation in order to effectively deal with scheduling and running parallel tasks. Finally, it is imperative that they also possess the future time orientation necessary to develop and maintain a project vision while developing contingency plans against times of future difficulty.

Each of these time orientations (past, present, and future) contain a set of concomitant temporal skills that project leaders must develop if they are to maximize their potential. Recapturing the past and time warping are important for achieving past-oriented project challenges. Chunking time and polychronicity skills must be encouraged if project leaders are to successfully deal with the present-oriented tasks of scheduling and managing multiple activities. Lastly, effective project managers routinely employ forward time warping, predicting, and visioning in order to deal with the future-oriented elements of their work. All of these skills, functioning as complementary components of project leadership, provide the project manager/intrapreneur with the ability to most effectively manage the diverse challenges of project development.

Finally, Table 2 demonstrates our hypothesized orientations if project leaders are to develop the attunement between various temporal skills and the time orientation of their tasks. For example, we suggest that proper attunement for project scheduling (a present-oriented task) requires use of the "chunking time" management skill. Attunement between this task and the appropriate time orientation requires a present timeline.
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<td><strong>A. Past-oriented tasks</strong></td>
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| 1. Project problem solving | Recapturing the past | Past timeline orientation  
Time warping (backward)  
Low future time perspective  
Limited time span (includes past) |
| 2. Team member evaluation | Recapturing the past | Past timeline orientation  
Low future time perspective  
Limited time span (includes past)  
Cyclical time conception |
| **B. Present-oriented tasks** |                |                    |
| 3. Scheduling | Schedule pacing | Present timeline orientation  
Moderate future time perspective  
Time span adequate for schedule (includes future) |
| 4. Managing multiple project aspects | Polychronicity | Polychronic orientation  
Cyclical time conception |
| **C. Future-oriented tasks** |                |                    |
| 5. Contingency planning | Time warping (forward) | Future timeline orientation  
High future time perspective  
Time span adequate for project (includes future)  
Predicting | Past timeline orientation  
Low future time perspective  
Cyclical time conception |
| 6. Creating vision of project | Creating future vision | Future timeline orientation  
High future time perspective  
Broad time span (includes future) |

**Table 2. Time-Related Project Leader Tasks**

orientation, moderate future perspective, and a time span adequate for the schedule. On the other hand, a more complex task, such as managing multiple, interrelated project activities, forces the project leader to develop a polychronic outlook. The appropriate preference, therefore, is itself polychronic; that is, it requires the project leader to be able to rapidly shift among past, present, and future time orientations to address the complexity of multiple simultaneous project activities.

There are some important practical implications of this model. Let’s consider the effect that a better understanding of temporal orientation can have on project management in our companies.

1. As regards project leaders, charged with providing the energy and direction for our project teams, they need to understand how their own temporal alignment will impact their leadership ability. What are they predisposed to do well, and what aspects of their job will be a trial to them due to their time orientation? Corporations, eager to improve their project management practices, should actively seek candidates to run their projects who possess the requisite mix of temporal attunement skills to perform the varied duties their jobs demand. Clearly, the best case scenario would be to find managers who have the ability to vary their time orientation to their current demands. However, while the optimal alternative, it may be more likely that these project leaders will, in fact, perform some activities well due to their temporal orientations while performing some aspects of their jobs less willingly or satisfactorily. Such a conclusion suggests that a more appropriate strategy would be for organizations to recognize these individual limitations and develop skills training in time orientation for project staff and especially man-
agers to help them learn how to create an effective mix of past, present, and future time orientations.

2. In selecting and developing effective project managers, we need to find ways to assess the temporal skills needed by leaders in specific functions associated with their role. In other words, what specific roles will project managers undertake in these organizations and what are the appropriate temporal orientations associated with those roles? Project managers are inundated with myriad demands and competing requirements for successful performance, requiring shifting competencies among these demands. It is imperative that organizations promote efforts to select and equip their project team leaders with the skill set necessary to meet these competing demands and time orientations.

When selecting project leaders, it is important to proactively outline the temporal skills needed to successfully perform in each leadership position. We can ask successful project managers to discuss the tasks they perform that require them to reflect on the past or think about the future. A list of duties could be presented as a checklist that asks them to indicate which space in time is used when performing each task. This information could further be refined due to the nature of passing time on a project assignment. For example, using a life-cycle model early in a project’s life, it is appropriate to operate in a future-time-oriented planning mode in order to establish the context for project activities. Later, during the project execution phase, the project manager, while not ignoring the project’s overall mission, is often forced to engage in more present-oriented activities associated with addressing issues and needs as they surface. Finally, as the project moves into its termination stage, project leaders must assume the role of analyst and evaluator, conducting the kinds of post-project appraisals that necessitate a past-time orientation. The benefit of the project life-cycle model is that it demonstrates the phased nature of many project leadership activities, as the project moves through its stages of development.

3. Closely related to point Number 2, organizations should not only work to analyze the orientations associated with specific project management roles, but also work to develop methods to determine the types of activities that will be needed to successfully complete their projects and look for team members and project leaders who have the natural inclination to operate in these temporal dimensions. Obviously, many activities on a project will require past, present, and future orientation. It is important to determine if the correct team members (e.g., comprising a team made up of people with as diverse a set of orientations as possible) are being assigned to the project to promote the likelihood that all elements of the project work are being attended to correctly. Companies need to assess the temporal alignment of incumbents and candidates in advance, and craft approaches to develop temporal skills or provide remedial aids when necessary. The more up-front time that organizations spend in accurately assessing the strengths and weaknesses of potential project managers and team members, the better equipped these individuals will be to recognize the shifting demands of their job and adjust their focus accordingly.

4. Project leaders must recognize their own weaknesses related to temporal skills and, when possible, select team members with complementary skills. They must also learn to accept the value of different temporal orientations. People with an orientation toward the past (or present or future) are not "bad," they are just interested in different aspects of projects.

Future Directions
The relationship between time orientation and project management success is one that has only recently begun to be explored in the managerial literature. Consequently, this field offers a number of exciting prospects for future research as academics and practitioners attempt to come to a more comprehensive understanding of time orientation both as a construct and predictor of successful project leadership.

Future research in project management needs to continue to examine the role of time orientation in successful project leadership. We have suggested a set of cognitive elements of time orientation, including timeline orientation, future time perspective, time span, polychronic/monochronous preference, and so forth. While this list gives illustration to our arguments, we do not claim it is exhaustive. There are likely to be other cognitive elements that can affect project development success. Using an open-ended questionnaire, it would be useful to survey a sample of successful project leaders to assess the more complete list of cognitive elements they view as necessary for successful project development.

A related question would be to assess more formally the direct link between a project leader's preferred time orientation (past, present, or future) and project success. We need to establish some direct, empirical links between each time orientation and project implementation success. Using the project life-cycle model as a framework, we may find that "success" varies with different stages in a project's life cycle, arguing that early in the development process, a future-time perspective is most important. During the middle, development phase, a present-time perspective is most useful, and in its termination and transfer to customer stage, a past-time perspective is essential. Future research could test the efficacy of this theory, demonstrating not only the importance of each time orientation but also at what point in a project's development such an outlook is warranted.
Research examining the relationships between the various constructs that make up temporal alignment and leadership are in the infancy stages. Although Jaques (1986) has done work with time span and Das (1986; 1987; 1991; 1993) is actively working with future orientation, little else has been done in this field. There is a need to merge psychological research on time-related constructs with the field of project management. In addition, Thoms and Greenberger (1998) have found that certain personality traits may affect a leader's time orientation. This suggests a number of avenues for future research as we attempt to better define those personality traits that most closely correlate with various time orientations.

Conclusion
The relationship between successful project leadership and time orientation is a new concept with many practical implications. It can help us explain why some project leaders do well in new situations and others do poorly despite previous successes and training. It can also provide some additional selection criteria that need to be validated in order to improve organizational leadership. This model suggests the idea that specific individual differences may impact project leader effectiveness. If individual differences in basic time orientation and temporal skills can be empirically demonstrated, we can add a new dimension to leadership selection and development.

References