The structure and management of the three major professional sports provide analogies that can serve as guides for managers in analyzing their organizations and determining their best game plans.

Baseball, Football, and Basketball: Models for Business

Robert W. Keidel

Teamwork and hustle . . . game plans and goal line stands . . . playing hardball in the big leagues. Not only is professional sports a business; it is an exemplar for business. Indeed, if it can be said that nature follows art, then surely business must follow sports. How many executives, for instance, strive for the historical precision of the Dallas Cowboys or the cohesiveness of the Boston Celtics? How many deep down see themselves as corporate Billy Cunninghams, George Allens, or Whitey Herzogs? Probably quite a few.

Business's identification with sports, sports teams, and sports personalities is pervasive. None of this is lost on periodicals like *Sports Illustrated*, which touts its "speakers bureau" of 2,000 sports stars "ready to sparkle at sales meetings, award dinners, conventions, store openings, or wherever else the color and excitement of sports can help you shine."

For most managers, sports' relevance to running a business consists of global concepts like "team spirit," "competitiveness," and "winning." Something more, however, is suggested by the use of sport-specific metaphors like "home run hitter," "quarterback," or

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"point guard." I believe that managers' habitual use of such metaphors suggests an identification with a particular sport, which may then be projected onto their organizations. Thus a manager constantly in search of a "stopper" may be projecting an uncritical baseball-team view of behavior onto his or her organizational world.

Such projection may be of little consequence, especially if the sports image is highly generalized. However, if the sports image is rather specific and if it corresponds more to a decision maker's personality than to organizational reality, it could cause trouble. Consider the following cases:

- The operations vice-president of a durable-goods producer was convinced that the best guarantee of effective manufacturing was an overachieving plant manager. When one of his plants—a highly integrated, high-volume facility—ran into difficulties, he quickly inserted a new, more ambitious plant manager. Six months later, with the plant still floundering, the director declared: "I've had it with singles hitters; I need someone who can turn it around with one swing." Thereupon he brought in still another manager, even more aggressive than his predecessor. The decline continued. As the plant's production control staff later recounted, the problem was never the plant manager; it was an incomprehensible production/inventory control system that no one—at the plant or at corporate headquarters—had ever really understood. Unfortunately, the vice-president's "long-ball" model—in which the crucial individual would carry the day—prevented him from seeing this.

- The president of a high-technology marketing firm sought to imbue a "total team concept" throughout his organization. His model was basketball: close teamwork and cooperation among all organizational units. The company's structure, however, worked against this. Units were geographically scattered across the country, and each operated quasi-autonomously. They rarely interacted with each other and in fact perceived themselves (correctly) to be in competition with each other for corporate recognition and resources. Hence, attempts to inspire a sense of "all-for-one" were set up to fail, and did.

- The corporate training director of a leading office systems company believed that



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the twin keys to managerial success were "clear direction and precise execution." This individual had attended a university renowned for its football prowess. While not a football player himself, he had identified with the sport and with his university's team. This identification carried with him into business. He organized a series of corporation-wide training seminars featuring videotapes of prominent football coaches. The basic pitch was "You need a quarterback and you need to pull together as a team." These seminars may have had a positive effect on some, but they became a standing joke among the company's large population of self-starting individual contributors—who ranged from entry-level salesmen to solid-state physicists.

- The leader of a multi-disciplinary management-consulting team on location at a client's site abruptly resigned. He was replaced by the most senior member of the project team. The new leader brought together all project staff to explain his approach to management: "When you have a team of Mike Schmidts, Dave Parkers, Johnny Benches . . . you don't manage them. You just let them play. Well, that's what you guys are. You're all-stars. You can manage by yourselves." Several consultants took this literally. They began to work more and more on their own, just as the project demanded greater collaboration across disciplines. The client organization soon became dissatisfied with the overall consulting performance and terminated the engagement.

As compelling as the above cases are, the significant point is not that managers have done damage by applying inappropriate sports notions. What is significant is the opportunity that managers have to actually learn from sports. The three major professional team sports in the United States—baseball, football, and basketball—exhibit profoundly different dynamics and exemplify three organizational patterns common in business (and other sectors). Each represents a model—a coherent set of relationships that captures the essence of an organizational form. By studying these models, managers can gain new insight into their own organizations—and possibly their own cognitive orientations.

Each model is grounded in a particular kind of internal "interdependence." This idea has to do with how parts (or members) of an organization interact. In pooled interdependence, there is little or no interaction; the parts act more or less independently of each other. In sequential interdependence, the parts interact in series: A feeds B, which in turn feeds C, and so on. In reciprocal interdependence, each part interacts with every other. The flow is back-and-forth.

In fact, each sport contains examples of every form of interdependence. For instance, each displays reciprocal interdependence because offense and defense always feed each other. Granted this, however, significant differences separate professional baseball, football, and basketball. These differences are summarized in Figure 1, which sketches the three organizational models. In the rest of this article I will explore these models by (1) contrasting team structures and the latters' implications for team management and (2) detailing the relevance of the sports models to business management.

Team Structure

Each of the three professional sports has a unique structure. Here are the relevant details.

Baseball

Of the three sports, professional baseball exhibits the greatest degree of pooled interdependence. Team-member contributions are relatively independent of each other. In the

Figure 1

THREE ORGANIZATIONAL MODELS

	Sports		
Dimension	*Baseball*	*Football*	*Basketball*
Dominant interdependence	Pooled	Sequential	Reciprocal
Density	Low	Moderate	High
Basic unit	Individual	Group	Team
Key coordinating mechanism	Design of sport	Planning and hierarchy	Mutual adjustment
Core management competence	Tactical	Strategic	Integrative
Developmental focus	Individual	Individual and group	Individual and team

words of Pete Rose, "Baseball is a team game, but nine men who reach their individual goals make a nice team." Where interaction does occur, it is usually between no more than two or three players (on the same team) —for example, pitcher-catcher, batter-baserunner, infielder-infielder. Rarely are more than a few of the players on the field involved directly in a given play—outside of making adjustments in fielding positions in anticipation of a play (or to back up a play).

The geographical dispersion of the players in baseball is also the least dense of the three sports. Players are spread across a wide playing area, especially in the "outfield." This widespread placement, combined with low interaction, makes a baseball team—and a baseball game—a "loosely coupled" system. Spatial separation is mirrored by the relation between offense and defense: They are totally separate or "disjointed." The contest is stopped while one team leaves the field and the other takes it.

The basic unit in baseball is the individual. More so than in either football or basketball, overall performance approximates the sum of team members' performances. This is vividly demonstrated by the way offense works: Players come up to bat one at a time. Of course, scoring typically requires a sequence of actions such as walks, hits, and sacrifices. But individual contributions remain rather discrete.

Football

Professional football exhibits sequential interdependence in two ways. First, on offense, the line leads ("feeds") the backfield by providing the blocking necessary for running and passing. Second, in a more fundamental sense, the flow of plays usually required to score—that is, a linear series of "first downs" across a "gridiron"—could not be more sequential.

The dispersion of the players in football is denser than in baseball. Football involves twice as many players on a smaller field. Most players—the lines, offensive backs and, to an extent, the linebackers—are usually bunched together. Further, all players on the field are involved in every play. In two words, football is "tightly coupled."

Moreover, there is a continuous element of contingency as to who controls the ball. Offense and defense can turn into each other at any time as a result of a turnover (a fumble or an interception). Apart from turnovers, the (normal) transition game has become a third component of football, linking offense and defense. Transitions are frequently played by specialists, members of "special teams" who may have made the squad solely on the basis of their play in this facet of the game.

The basic units in football are the large group or platoon (offense, defense, and

transition) and, to a lesser degree, the small group (linemen, linebackers, backfield, and so forth). Overall performance is basically the sum of the platoons' performances. Each platoon's challenge is to be as machinelike as possible—a metaphor that is especially apt for this sport. It is instructive to picture the football field as a factory, with the moving line of scrimmage representing product flow through the factory. According to George Allen, then-head coach of the Washington Redskins:

> A football team is a lot like a machine. It's made up of parts. If one part doesn't work, one player pulling against you and not doing his job, the whole machine fails.

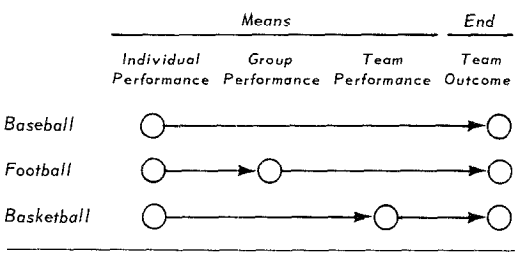
Basketball

Professional basketball exhibits a high degree of reciprocal interdependence, as demonstrated by the back-and-forth flow of the ball among players. The reciprocal character of the sport also shown in the often frenetic movement up and down the court—a far cry from the deliberate, measured advance of a classic football scoring drive.

The dispersion of players in basketball is the most dense of the three sports. Like football, basketball is also tightly coupled. But the coupling differs. In football players are coupled to their individual roles, as though programmed; in basketball, players are coupled to all of their teammates in a fluid, unfolding manner. Every player (1) is involved in offense, defense, and transition; (2) handles the ball; and (3) attempts to score.

If offense and defense are "linked" in football, they are overlapping or "intersecting" in basketball. Offense and defense may turn into each other instantaneously, and often do. The transition game is not a separate piece with separate players, as it is in football; it is continuous, part of the flow. Indeed, a fast-breaking professional basketball game gives the sensation of an electronic video game.

Figure 2
THREE MEANS/END STRUCTURES



The basic unit in basketball is the team. With only five players on the court, an intermediate grouping between the team and the individual is unrealistic. Unit performance therefore is a function of player interaction, where each player may be involved with every other player on the court.

The means/end structures of the three sports are depicted graphically in Figure 2. In baseball, team outcome—a win or a loss—is the aggregate of individual (and small group) efforts. It is predominantly the sum of individual v. individual (pitcher v. batter) confrontations. In football, team outcome is the aggregate of platoon performances. The dominant competition is group v. group (offense v. defense, special team v. special team). Finally, in basketball, team outcome is not an aggregate of subunits' performances; it is a function of team performance—player actions and especially, interactions. The dominant competition is team v. team (encompassing offense, defense, and transition).

IMPLICATIONS FOR TEAM MANAGEMENT

These structural differences make a difference in the way teams are managed in the three sports. Implications concern coordina-

tion, management competence, and developmental focus.

Baseball

In baseball, coordination is achieved primarily through the design (structure) of the game. There are no "game plans" or overarching strategies to devise—with the possible exception of pitching rotation. Game-related decisions are tactical, both before the start of the contest (filling out a lineup card) and during it (making substitutions, positioning fielders, pitching out, pinch hitting, advancing a runner, and so forth). The core management competence is the ability to make episodic judgments in real time. The effective manager in baseball may be described as a "tactician."

Because a baseball team is loosely coupled, instilling team—or, at least, team-manager—cohesiveness may not be critical. Indeed, one can find evidence for the opposite conclusion—that is to say, a disruptive manager may succeed in part by stirring things up. Billy Martin and Dallas Green, who won World Series with the Yankees and the Phillies, respectively, are two recent cases in point. The value (or irrelevance) of disruptiveness may extend even to owners, as witness Charley Finley and George Steinbrenner. Concerning Steinbrenner, an editorial in *The Wall Street Journal* speculates: "Do the Yankees succeed despite their boss's nastiness, or because of it? The idea that nice guys finish last . . . isn't new by any means, but it has been brought home with particular force in sports of late."

Because baseball's basic unit is the individual player, developmental efforts focus primarily on honing individual skills. Clearly, certain interactions (double plays, pickoff attempts, relay throws, and so forth) are important. But these tend to involve few players and significantly, depend more on individual execution than on interaction.

Football

Coordination in football is achieved through planning and hierarchical direction. Of the three sports, only professional football is strategy-intensive at the game level. This is a function of both the "strategic" importance of each contest and the nature of the sport. The National Football League's regular season consists of 16 games, as compared with 82 in the National Basketball Association and 162 in major league baseball; hence the average football game has five times the significance of a basketball game and ten times that of a baseball game. Moreover, in the post-season playoffs, a football team is eliminated by a single loss, whereas at each step in the elimination process baseball and basketball teams play the best of a series.

In football, films of the upcoming opponent are run and rerun to provide clues as to likely play sequences, formations, coverages, and so on. The team's own previous performance is also reviewed, a game plan is formulated, and players are drilled exhaustively in anticipation. In neither of the other two sports are instructions for each play so precise, or job descriptions so narrow. Football's combination of meticulous preparation, high information volume, and fractionated tasks helps to explain why there is much more of a coaching hierarchy in this sport than in baseball or basketball.

The primary unit to be internally coordinated is the group. Indeed, player identification with the group, especially the platoon—whether offense, defense, or transition—may be more readily achieved than identification with the team as a whole. It may also be at least as valuable: Interplatoon rivalry within a team can physically and psychologically prepare players for the conflict of the next game. Thus reports that fights are breaking out as offense and defense "bang on each other" during practice may be a positive sign. In any case, the platoon's integrity is

SPORTS ANALOGY FOR PRODUCT INNOVATION

The analogical value of sports extends to product innovation. A senior research and development manager with considerable experience in new product development in the pharmaceutical industry finds sports images powerful for patterning phases of drug discovery and development. According to this manager, "The process moves through three distinct stages. It's like going from baseball, to football, to basketball."

In the *first stage*, basic research, scientists work more or less independently. Medicinal chemists produce new molecules for biological testing; biochemists and pharmacologists develop evaluation methods for detecting potential new drugs; and pharmacy researchers devise new dosage forms and drug delivery methods. The product of all these efforts is an increased pool of knowledge about how to discover a drug. It is the sum of individual contributions—as in baseball.

The *second stage*, "lead development," begins once a promising drug has been identified. Things move in train. First, developmental chemists engineer an economical process to manufacture the potential drug in adequate supply for further testing. Then the drug is sent to pharmacy researchers (who develop specific dosages) and to toxicologists (who test the safety of the drug in animals). Next, after governmental approval has been secured, clinical trials are performed. The investigational new drug is evaluated in healthy subjects for safety, and later in patients who suffer from the disease that the drug is intended to treat. The sequence is cumulative—like a series of first downs in football.

Only after all these steps have been completed successfully—and the company is convinced that the drug is safe, effective, and salable—does the *third stage*, aimed at developing a "new drug application" (NDA), begin. In this stage, relevant groups of specialists (physicians, statisticians, pharmacists, pharmacologists, toxicologists, chemists) work together reciprocally—like a basketball team—to win approval of their NDA from the Food and Drug Administration.

central; developing cohesiveness within it is an essential management task.

Basketball

The key coordinating mechanism in basketball is mutual adjustment by the players. The coach's tasks are (1) to develop the team's ability to adjust and (2) to intervene (during a game) on an exception basis. Indeed, the game strategy of the effective basketball coach often resembles that of the counterpuncher in boxing: It is "planned reaction." And while his or her counterpart in baseball must make a flow of adjustments to specific game situations, the basketball coach must make adjustments to the flow of the overall game (through time outs, match-up changes, and so forth).

In basketball, interaction is more important than the sum of individual players' actions. Thus it is often said that the core skill in basketball is passing, which requires continuous movement by all—not just by the player with the ball. An effective passing game diminishes the need for outstanding shooters or (offensive) rebounders because it produces dunks and layups—high-percentage shots.

To achieve the dynamic interaction required in professional basketball demands interpersonal as well as technical competence on the part of the coach. The coach must be acutely sensitive to personality nuances and be able to blend very different types—especially because the placement of players in basketball is so dense. Indeed, more than any other sport, basketball appears to parallel Japanese industry (and society): Cooperation at close quarters is a matter of survival. In

sum, the successful basketball coach knows how to cohere. The coach is—psychosocially as well as technically—an "integrator."

As indicated, the basic unit in basketball is the team. Individual development must take place within this context. In terms of individual/team primacy, basketball is the opposite of baseball. A teamful of prima donnas can win it all in baseball; this is less likely in basketball. As Bill Bradley pointed out in 1977—after the talent-laden Philadelphia 76ers had lost in the NBA finals to the less individually talented but more cohesive Portland Trailblazers—"Maybe someday a team will have so much individual firepower that on that alone it can win a championship. It hasn't happened yet." It still hasn't.

Sports as Models for Business

Professional team sports are a fertile laboratory for managers because they mirror business. Despite obvious differences—for example, few businesses operate within such narrow parameters as those governing sports teams—the parallels are striking. At a general level they concern (1) the need to compete externally, (2) the need to cooperate internally, (3) the need to manage human resources strategically, and (4) generic structure.

First, sports exemplify competition. All businesses face intensifying international competition for markets and resources. Sports provide a crucible in which to witness competition in a concentrated form. Business (and other) organizations can observe competitive lessons in sharp relief by critically viewing sports contests—especially because results are unambiguous.

Second, sports exemplify cooperation. One of team sports' major lessons is that regardless of task requirements, some measure of cooperation is crucial to competitiveness. Sports provide the opportunity to comprehend teamwork in an array of concrete forms (within each sport as well as between sports). This actual variety contrasts sharply with the vague and undifferentiated sense in which "teamwork" tends to be used.

Third, sports are human resources-strategic. In each of the three sports, the management of human resources is a central part of overarching strategy—especially because (1) strategic decisions take place within a (sport, league, season, and game) framework already mandated, and (2) sports are unequivocally "people-intensive." The net effect is that sports provides a direct window on strategic human resources management.

Finally, sports encompass generic group structures. The size range of baseball, football, and basketball teams—from five to eleven players in action (and from 12 to 47 players in total)—parallels the size range of must organizational building-block groups (work clusters, departments, project teams, and so forth) in business.

At a specific level, baseball, football, and basketball represent models that can help managers understand how their organizations work. For all complex businesses are made up of disparate units, some of which resemble baseball teams, others football teams, and still others basketball teams. Articulating the resemblances can clarify management's charge.

What are the relevant criteria? Essentially they are the dimensions listed in Figure 1, which may be recast as a checklist for selecting a model—or for assessing the appropriateness of a model-in-use. Figure 3 summarizes unit properties of "baseball-," "football-," and "basketball-" companies.

While this display is worded in terms of intra-unit relations, it applies as well to inter-unit relations, where player:team is equivalent to unit:organization. Some examples will illustrate.

Figure 3
A DIAGNOSTIC CHECKLIST

	Baseball-Company	*Football-Company*	*Basketball-Company*
1. What is the nature (and degree) of task-based interaction among unit members?	Pooled (low).	Sequential (moderate).	Reciprocal (high).
2. What is the geographical distribution of unit members?	Widely dispersed.	Somewhat clustered.	Highly concentrated.
3. Given company objectives and constraints, where does autonomy reside?	Within each unit member.	Above the unit (that is, within unit management).	Among unit members (that is, within the unit as a whole).
4. How is coordination achieved?	Through unit design in which the sum of individual unit members' objectives approximates unit objectives.	Through complex protocols that clearly and tightly specify the roles and responsibilities of each unit member.	Through continuous self-regulation and responsibility sharing among unit members.
5. What words best describe unit structure?	Network/conglomerate.	Bureaucratic/mechanistic.	Adhocratic/organic.
6. What sports expression metaphorically sums up the operating management task?	Fill out (revise) the line-up card.	Prepare (execute) the game plan.	Influence the game's flow.

Baseball-Companies

Organizations that fit this type are loosely coupled. They include the classic sales organization, made up of high-performing soloists. Also within this category are aggregations of basic researchers, in which each individual independently pursues his or her own line of inquiry—as happens with university professors. At a more macro level, organizations with dispersed, quasi-autonomous units—geographically organized firms, holding companies, franchise-based operations—likewise have much in common with a baseball team. The whole is roughly the sum of its parts (units).

Football-Companies

Companies within this cluster tend to have "long-linked" technologies; that is, their production processes involve a complex of discrete steps, tightly coupled in serial (and sometimes parallel) order. The most obvious example is the mass assembly line. In general, organizations that can be described as "machine bureaucracies," to use Henry Mintzberg's term, resemble football teams. At a macro level, two varieties of football-like organization can be identified: (1) the vertically integrated firm and (2) the large construction (power plants, ships, high-rise buildings, and so forth) firm. In each case effective perfor-

mance depends on the ability to orchestrate a complicated but predictable set of activities in careful sequence.

Basketball-Companies

Organizations of this sort are tightly coupled but less than tightly hierarchical. They depend more on member interaction than on managerial direction. Examples range from think-tank consulting firms, to creative advertising agencies, to state-of-the-art computer manufacturers. An analogue within more conventional organizations is the ad hoc task force that cuts across levels and functions, and in which all members interact with each other in virtually all aspects of problem-solving activity. Basketball-companies resemble (sets of) autonomous work teams: They are self-organizing and highly flexible.

Discussion

Although no organizational unit can possibly perfectly fit any one configuration, resemblance to a particular sport can highlight salient features previously obscured. Thus each business situation cited at the beginning of this article calls for a model quite different from the one in use by the manager. (By referencing each of the four cases mentioned there to Figure 3, it is evident that the more appropriate models are, respectively, football, baseball, baseball, and basketball.)

One caution must be raised here. When making comparisons with a sports team, it is important to be clear about both the nature of similarity and the organizational level of analysis. For instance, Ray Kroc, the founder of McDonald's and owner of the San Diego Padres baseball team, has opined that "A well-run restaurant is like a winning baseball team; it makes the most of every crew member's talent and takes advantage of every split-second opportunity to speed up servic ." I believe that McDonald's as a whole does resemble a baseball team in two respects: (1) Corporate management effectively "fills out the line-up card" by authorizing franchises, and (2) each store operates relatively autonomously—with minimal interaction among stores—within a preset design (that is, a corporate-imposed set of rules to insure consistency). Within each store, however, the (corporate-determined) structure and process more closely resemble football (which unlike baseball, does have a game clock). Technologies are highly programmed, individual responsibilities are narrowly specified, and the overall operation amounts to what Theodore Levitt has called a "production-line approach to service." It is fitting that the title of Kroc's autobiography is a football expression, *Grinding It Out: The Making of McDonald's* (Contemporary Books, 1977).

Practical Implications of the Sports Models

The baseball, football, and basketball models have practical managerial implications.

Individual-Organization Fit

An organization that resembles a baseball team can and probably should concentrate on technical and individual criteria in assessing a prospective employee. On the whole, a person's desire and ability to function autonomously are more important in this sport than in the other two. Author John Updike has observed that:

> . . . of all team sports, baseball, with its graceful intermittences of action, its immense and tranquil field sparsely settled with poised men in white, its dispassionate mathematics, seems to be best suited to ac-

commodate, and be ornamented by, a loner. It is an essentially lonely game.

An organization rather like a football or basketball team must also pay special attention to nontechnical and interpersonal criteria. How compatible will this person be with the firm's "system" (important in both sports) and with its management style (critical in basketball)?

According to Irv Cross, a former all-pro defensive back who began his National Football League career with the Philadelphia Eagles, "an Eagles player could never make an easy transition to the Dallas Cowboys; the systems and philosophies are just too different." By contrast, any major league baseball player can move to any other team in his league and face only minor adjustments. He will find differences in the new home park (weather, turf, lighting, outfield distances, and so forth), but not much else.

Developmental Flexibility

Because of its loose coupling, a baseball-like organization has considerable flexibility in deciding whether to develop primarily through new hires or through existing personnel. For the same reason, such an organization is also vulnerable to losing key individuals. Some teams—most notably the Los Angeles Dodgers—succeed by developing young players within their own organization and reinforcing a sense of "family." But building a spirit of togetherness is no easy matter given the sport's individualistic structure. Baseball does seem to lend itself to free agency. Effective managers often take advantage. Thus, in the words of the former Baltimore Orioles manager, Earl Weaver, whose career-winning percentage (.596) is the third highest in major league history:

> A manager's job is to select the best players for what he wants done. A manager wins games in December. He tries not to lose them in July. You win pennants in the off-season when you build your team with trades or free agents. They're not all great players, but they can all do something.

By contrast, the relatively tightly coupled character of football and basketball will likely continue to militate against winning through acquisition.

The organizational coherence that football and basketball require favors internal development. Development from within has been a hallmark of most of the consistently successful professional football coaches—for example, Vince Lombardi, Tom Landry, Don Shula, Bud Grant, Chuck Noll. That is, they worked with what they had inherited (or assembled) and from the college draft, rather than from trades. Although the record in professional basketball is mixed, the sport's coaching legend, Red Auerbach of the Boston Celtics, also did it from within—often with draft choices that other teams had passed over. Of course, the small size of a basketball team means that one or two key additions can make a dramatic difference, and there are several examples of successful teams put together through trades. But acquisitions that do work out tend to be interpersonally as well as technically "correct."

Managerial Continuity

In baseball-companies, managerial continuity appears to be unimportant. Manager turnover in the major leagues mirrors player turnover. Going into the 1983 season, only two managers—the Dodgers' Tom Lasorda and the Pirates' Chuck Tanner—had been with their club for as many as seven years. While Lasorda and Tanner—and the Orioles' Weaver—are evidence that continuity can be beneficial, there is abundant alternative evidence that it is not essential.

Professional football stands in ap-

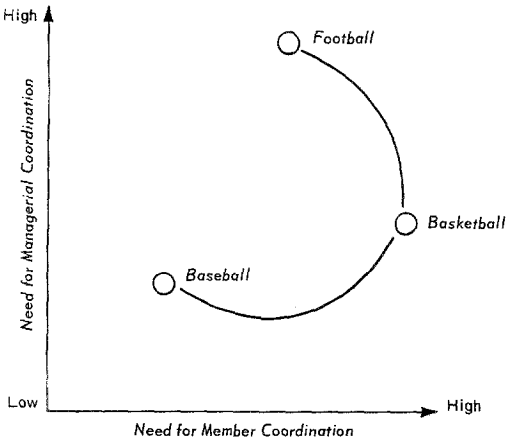
parent contrast to baseball. Teams that have succeeded over the long haul have tended to do so under the same head coach (Lombardi, Landry, Shula, Grant, Noll, and others). It can be argued simply that winning coaches keep their jobs, while losers do not. Without question there is a lot of truth to this. Still, one wonders whether certain chronically marginal teams might not have fared better had they invested in greater coaching stability, especially since each coaching change typically brings with it a new system and the need to build a new culture.

In contrast, the loosely knit character of baseball renders managerial changes less consequential. Thus several teams have succeeded under several managers; on the other hand, several managers—for example, Billy Martin, Gene Mauch, Dick Williams—have succeeded with several teams.

Professional basketball again presents a mixed record. But it is difficult to dismiss the example of Auerbach, under whom the Celtics won nine championships in a ten-season stretch.

Figure 4

DIFFERENTIAL COORDINATION REQUIREMENTS



Unit Performance Incentives

In a baseball-company, bonuses reflecting unit performance make little sense because individual contributions are relatively discrete. And where individual performance is closely linked to team outcome (as with a pitcher's win/loss record), the connection is relatively direct; hence, it is adequately recognized by a reward system that is individually based.

In a football-company, there is logic for unit performance incentives, especially where groups within the unit are highly functionally interdependent. Where groups are more independent than interdependent (as is the case with a football team's platoons), bonuses might be group-based in order to capitalize on individual identification with this sub-unit level.

Finally, a basketball-company seems to be made for unit performance incentives insofar as individual contributions defy neat separation. Because such organizations depend on mutual adjustment, there is a rationale for mutualism in reward systems.

Coordination

The nature and degree of a manager's control will vary with the sport his or her organization parallels. The management task may be conceptualized as a response to organizational requirements for (1) managerial coordination and (2) member coordination (involving individuals or units). Baseball, football, and basketball are arrayed against these dimensions in Figure 4.

Baseball presents the fewest demands along either dimension. The game's design diminishes the need for managerial coordination; its loosely coupled character also renders member (player) coordination only marginally important. On the surface, the baseball manager's job appears to be easy. In fact it is exasperating, precisely be-

Figure 5
PRACTICAL ORGANIZATIONAL IMPLICATIONS OF THE SPORTS MODELS

	Baseball	*Football*	*Basketball*
Importance of individual-organization "fit"	low	moderate to high	high
Developmental flexibility (from outside v. from within)	high	low to moderate	moderate
Importance of managerial continuity	low	moderate to high	moderate
Logic for unit-based performance incentives	low	moderate to high	high
Need for managerial coordination	low	high	low to moderate
Need for member coordination	low	moderate	high

cause he can control so little. A key prerequisite for managing a baseball-like organization, then, is the ability to accept these limits (and function tactically within them).

Football calls for special competence in managerial coordination—so much so that only a moderate degree of member coordination remains necessary. Indeed, despite the size and complexity of his job, the successful football coach may exercise more control over his team than either of his counterparts.

There is a low-to-moderate need for managerial coordination in basketball. What the sport really demands is member coordination—especially during spontaneous (that is, nonprogrammed) activity. The basketball coach can rely far less than the football coach on rehearsals because too much of the game is emerging and unpredictable; unlike football teams, basketball teams do not pause and regroup after each play. The best the basketball coach can do—and what the best coaches always do—is help the players learn how to coordinate themselves.

The sports models' practical implications for business organizations are condensed in Figure 5.

CONCLUDING COMMENTS

In this article I have argued that professional baseball, football, and basketball teams represent models that parallel business organizations. Clearly, the likenesses are inexact: No sport can perfectly simulate a business. But I believe that the metaphorical value of sports exceeds this liability. Thomas Peters and Robert Waterman, in their best-seller, *In Search of Excellence* (Harper & Row, 1982), argue that:

> . . . people reason intuitively. They reason with simple decision rules, which is a fancy way of saying that, in this complex world, they trust their gut. We need ways of sorting through the infinite minutiae out there, and we start with heuristics—associations, analogues, metaphors. . . .

At the same time, the business organization, unlike its counterpart in professional sports, is able to change its structure and indeed, its purpose. Thus a baseball-

company seeking to develop deeper employee commitment can take systemic measures to reduce drift or destructive internal competition among roles or units. Alternatively, a football- or basketball-company can take very different steps to increase individual autonomy and accountability. In these and other cases, the business organization has the opportunity to use a sports team as a mirror in diagnosing itself and then proceed to make choices that transcend the model.

It is a well-established fact that psychologically removing a person from a familiar context (business) can stimulate learning about that context. Anxieties and constraints diminish as a fresh perspective opens up. Sports can provide just such a vantage—especially since this realm is so pleasurable for so many. Critical analyses that a manager might resist when applied to his or her own company are welcomed when applied to a sports team. Paradoxically, the relevance of such analyses to the business organization may then become inescapable. In this way, sports can serve as a heuristic medium for business—and other—organizations. Sports truly are user-friendly.



SELECTED BIBLIOGRAPHY

The concept of interdependence, which underlies this article, is taken from James D. Thompson's *Organizations in Action* (McGraw-Hill, 1967); this dimension is treated systematically in relation to additional organizational design criteria in Gerald Susman's *Autonomy at Work* (Praeger, 1976). The related notion of organizational coupling is developed at length in Karl Weick's provocative article, "Educational Organizations as Loosely Coupled Systems" (*Administrative Science Quarterly*, March 1976), and more recently in Weick's essay, "Management of Organizational Change Among Loosely Coupled Elements," in Paul S. Goodman and associates' *Change in Organizations* (Jossey-Bass, 1982). The phenomenon of long-linked technology is elaborated in Daniel Bell's *Work and Its Discontents* (McGraw-Hill, 1956). Finally, a lucid discussion of different group structures is P. G. Herbst's *Alternatives to Hierarchies* (Martinus-Nijhoff, 1976); and an excellent synthesis of organization structures is to be found in Henry Mintzberg's book, *The Structuring of Organizations* (Prentice-Hall, 1979).

While the team structures of baseball, football, and basketball constitute models for business, these forms may also signify historical paradigms of business organization: preindustrial (baseball); industrial (football); and postindustrial (basketball). At an even more general level, the concept of sports itself represents a potential covering paradigm for business.

There is a significant developing literature on the importance of paradigms and metaphors to an understanding of organizations. See, for example, Thomas S. Kuhn's classic, *The Structure of Scientific Revolutions* (University of Chicago, 1962); Peter K. Manning's "Metaphors of the Field: Varieties of Organizational Discourse" (*Administrative Science Quarterly*, December 1979); Andrew Ortony's (ed.), *Metaphor and Thought* (Cambridge University, 1979); and Gareth Morgan's "Paradigms, Metaphors, and Puzzle Solving in Organization Theory" (*Administrative Science Quarterly*, December 1980).