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Exploring Zimbardo's Time Perspective as a Factor in Belbin's Team Role Assessment

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Abstract:

Purpose: *This paper proposes adding the Zimbardo Time Perspective as a variable in Belbin's Team Role Test, extensively used as team development tool.*
Design/Methodology/Approach: *Data were collected from 12 teams comprising 132 undergraduate students who participated in a management game. All students performed the Belbin Team-Role Self-Perception Inventory and the Zimbardo Time Perspective Inventory (ZTPI) prior to the activity. Students were grouped together just on the basis of their team-role profile and time focuse. Teams were specifically formed to investigate the influence of the role composition on the team's effectiveness.*
Findings: *Some studies have shown that teams demonstrating a composition consistent with Belbin's team role theory do not always exhibit high operational efficiency. I argue that by including the variable of Zimbardo Time Perspective Inventory in the Belbin test, managers will have another tool for identifying those individuals with teamwork skills who are best suited to ensure team effectiveness.*
Practical Implications: *Paper discusses how Zimbardo Individual Time Perspective complements the Belbin Team Role test in the team formation process for its better performance, making a contribution to the team development practice.*
Originality/value*: This study is the first to examine the utility of Zimbardo Individual Time Perspective as a relevant complementary characteristic in the team formation, making a contribution to the organizational behavior research literature.*

Keywords: *Teamwork, team formation, organizational behavior, Zimbardo Time Perspective Inventory, Belbin Team-Role Inventory.*

JEL codes: *M12, M51.*

Paper type: *Research article.*

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1. Introduction

Teams are the backbone of organizational success, and their effectiveness often hinges on the diverse skills and personalities of their members (Hurst, 1989). Teamwork skills are important for two main reasons. First, group conflicts are emotionally taxing and an unnecessary distraction from the group's work. If conflicts are very serious, they can cause employees to avoid work, become ill, increase absenteeism, or quit their jobs.

Teams constitute the core of organizational activities and are responsible for a wide range of tasks that are crucial to achieving the strategic goals of the company. Teams are tasked with achieving certain organizational goals, such as developing a product or providing a service. Achieving these goals is often highly dependent on the collaborative efforts of team members.

2. Literature Review

2.1 Teams in Organizational Functioning

There is basically no uniform classification system for teams in the literature. However, some classifications can be made between teams based on size, composition, place in the organizational structure, duration (temporary or permanent), and goals. In the consequence, these forms of teams can be more broadly categorized as, functional teams, cross-functional teams, virtual teams.

Functional teams are focused on specific organizational functions, such as marketing, finance, or operations. Members possess expertise in the same functional area working together to achieve goals related to their specific function (Ivancevich, 1990).

A cross-functional team is one consisting of members from different functional departments (e.g., engineering, accounting, human resources, marketing). This type of team forms to address a specific problem. In most cases team members come from different departments and different levels (managers and nonmanagers).

Virtual teams appeared as a popular response to increasing competition, the need for faster decisions, the ability to employ talent anywhere in the world, and technological advancements. Working across distances via e-mail, desktop and real-time conferencing, videoconferencing, electronic bulletin boards, and other technologies is challenging for leaders. Virtual teams can be connected via computer and telecommunication technology. A virtual team is defined as a number of people who use technology to work across location and time boundaries to accomplish a task (Ivancevich, 1990).

Regardless of size, composition and place in the organizational structure, the goal of each team is to perform its tasks effectively. One such practical tool that helps individuals to organize themselves in teams for achieving organisational goals is the Belbin Team Role test.

2.2 The Belbin Team Role Concept

High-performing teams are built on a shared vision, clear roles, open communication, trust, effective conflict resolution, and a commitment to continuous improvement. However, to complete their task team members must have the requisite technical skills and abilities to do the job. Moreover, other individual attributes such as personality, and attitudes, as well as task process come into play.

The most popular tool managers extensively use to organize teams around diverse skills is Belbin's Team Role test. It is based on identifying team roles, explaining how the person acts in a given group, based on personality traits and preferred work style.

Meredith Belbin (1981) defines a *team role* as one of nine clusters of behavioural attributes identified by his research at Henley as being effective in order to facilitate team progress. Belbin's team roles are classified into three broad categories, based on which aspect of group work is their primary focus, namely:

- action-oriented (the action / task roles)
- people-oriented (the social roles)
- thought-oriented (the thinking roles).

Initially Belbin (1993; 2010) identified eight following team roles, Resource Investigator, Teamworker and Co-ordinator (the social roles); Plant, Monitor Evaluator (the thinking role), and Shaper, Implementer and Completer Finisher (the action or task roles). In later research (Belbin, 1993; 2010) a ninth (thinking) team role was identified, the Specialis.

Each of listed team roles, due to their drawbacks and advantages (Table 1) present different value and functionality for the successful task completion. However, Belbin's (1993) research showes that the most successful teams were made up of a diverse mix of behaviours. To build high-performing teams, we need to represent each of the nine Belbin Team Role behaviours at the appropriate times.

According to the Belbin approach, when carrying out a given team task, most people have a natural tendency to operate freely and effectively through two to four natural roles. In practice, when carrying out team tasks, each person often fulfils several roles, as a group rarely has exactly nine members. In addition, people may display traits from more than one function at the same time, which is known as role interference.

Table 1. *The summary of nine Belbin team roles*

No.	Team role	Strengths	Allowable weaknesses
1	The plant	Creative, imaginative, unorthodox. Solves difficult problems	Ignores incidentals. Too preoccupied to communicate effectively
2	Resource Investigator	Extrovert, enthusiastic, communicative. Explores opportunities. Develops contacts.	Over-optimistic. Loses interest once initial enthusiasm has passed.
3	Co-ordinator	Mature, confident, a good chairperson. Clarifies goals, promotes decision-making, delegates well.	Can be seen asmanipulative Offloads personal work
4	Shaper	Challenging, dynamic, thrives on pressure. The drive and courage to overcome obstacles.	Prone to provocation. Offends people's feelings.
5	Monitor Evaluator	Sober, strategic and discerning. Sees all options. Judgesaccurately.	Lacks drive and abilityto inspire others.
6	Teamworker	Co-operative, mild, perceptive and diplomatic. Listens, builds,averts friction.	Indecisive in crunchsituations.
7	Implementer	Disciplined, reliable, conservative and efficient. Turns ideas into practical actions.	Somewhat inflexible. Slow to respond to newpossibilities.
8	Completer Finisher	Painstaking, conscientious, anxious. Searches out errors and omissions. Delivers on time.	Inclined to worry unduly. Reluctant to delegate.
9	Specialist	Single-minded, self-starter, dedicated. Provides knowledge and skills in rare supply.	Contributes on only a narrow front. Dwells on technicalities.

Source: *Based on: Belbin, R.M. 1993. Team Roles at Work, Butterworth-Heinemann, Oxford.*

Although, finding people that naturally fit into each function may be challenging for teams, which might result in imbalances, Belbin (1981) argued that the roles identified in his research are crucial to effective team work. He identified five principles underlying teamwork:

- Each team member contributes to the achievement of the team's goals by fulfilling both a functional role (defined by his or her professional and/or technical expertise) and a team role (defined by his or her individual pattern of team interactions).
- A team needs an optimal balance of functional and team roles, which depends on the goals and tasks facing the team.
- Team effectiveness will be promoted by the extent to which members correctly recognize and adapt to the team's strengths, both in terms of specialized knowledge and the ability to engage in specific team roles.

- Personal characteristics predispose members to some team roles while limiting the likelihood that they will be able to perform others.
- A team can use its resources most effectively only when it has the requisite range of team roles to ensure efficient teamwork.

Existing research in this area suggests that teams can operate most effectively if the right combinations of roles are present. Tomngton et al. (1985), have suggested that for effective team functioning both task-oriented, and people-oriented behaviors are necessary.

However, some studies indicate that teams demonstrating a composition consistent with Belbin's theory do not always demonstrate high operational efficiency. This leads to the assumption that Belbin's test, although effective in certain circumstances, should be supported by team formation tools that take into account other selection factors, such as personality. In this article, I propose to enhance the team member selection process by including the variable of Zimbardo Individual Time Perspective.

2.3 The Zimbardo Time Perspective Concept

The Zimbardo Time Perspective Inventory (ZTPI), created by Philip Zimbardo (Zimbardo *et al.,* 1997), describes how people perceive time, divided into past, present and future and how this influences their decisions, behaviors, and social interactions.

In this respect, the following basic perspectives have been distinguished (Zimbardo *et al.,* 1997; Zimbardo and Boyd, 1999) past positive or past negative; present hedonistic or present fatalistic and future time perspective.

Zimbardo Individual Time Perspective assumes that people characterized by different perceptions of time, manifest themselves through different approaches to decision-making, different attitudes and actions.

Zimbardo's Individual Time Perspective Theory explains differences in the approach to task completion depending on the dominant time perspective of the individual.

People with a positive past perspective complement the team's activities with experience, helping to avoid past mistakes and take care of tradition. Organizational players of the present hedonistic orientation are creative, spontaneous and full of energy. Future oriented people focus on planning and achieving long-term goals.

Moreover, these differences are visible in the pace of work, teamwork skills and work effects when completing tasks under time pressure. The basic differences in this respect, in the case of 5 time perspectives, are summarized in Table 2.

Table 2. *The summary of five individual time perspectives*

Performance in teamwork / Time perspective	**Work pace**	**Work under pressure**	**Cooperation**	**Analytical traits**
Past-Positive	Rather moderate, can overanalyze previous experiences	Less effective, prefer a stable environment	Good at building relationships based on trust and tradition	Accuracy, reflection on previous projects
Past-Negative	Can be slower, due to focus on previous failures	They are poor at making quick decisions	Sometimes more difficult, due to pessimism	Cautious, avoiding mistakes
Present-Hedonistic	Fast, but chaotic	They cope well in a dynamic environment	Creative, but may lack systematicity	Spontaneous approach to problems
Present-Fatalistic	Slow, with a tendency to procrastinate.	Ineffective, lack of a sense of control.	Problematic due to resignation.	Ability to accept unpredictable events.
Future-Oriented	Systematic and planned.	Cope well, provided that advance planning is carried out.	Effective in management, but may be less flexible.	Strong organizational skills, planning.

Source: *Table developed by the author based on: Paixão, M.P., Da Silva, J.T., Cordeiro, V., Ortuño, P. 2013, "An exploratory approach to Time Perspective theory and research" in: International Studies In Time Perspective, Coimbra University Press; Zimbardo, P.G., Boyd, J.N. 2014, The Time Paradox: The New Psychology of Time That Will Change Your Life, London: Rider*

Philip Zimbardo's research on individual time perspectives (Zimbardo et al., 1997) suggests that excessive concentration on one time perspective can be dysfunctional. The most desirable state is a balanced time perspective, when a person freely takes advantage of the benefits of all time perspectives. The same may apply to teamwork, where it is worth taking care of the balance, so that neither rigid planning nor excessive spontaneity dominates.

3. Research Methodology

Twelve teams were created to test the influence of time focus on team performance with balanced Belbin's role-mix by grouping people solely on the basis of their team role profile measured by the Belbin's Team-Role Self-Perception Inventory and time focus measured by the Zimbardo Individual Time Perspective Inventory.

All 12 teams comprising 132 participants (some students were assigned the tasks of observers), were composed of nine members representing nine Belbin team roles and

divese composition of Individual Time Perspective (Table 3). All participants were the undergraduate students who participated in a management game during the Organizational Behaviour course in 2021/2022, 2022/2023, and 2022/2023 academic years.

Effectiveness of the teams was measured by using two variables: correctly solving the problem and length of time to arrive at the correct solution.

According to Zimbardo's Time Perspective Theory, individuals with a present focus often work best under pressure and with short-term goals. In particular, individuals with a hedonistic present orientation use their natural ability to adapt and focus on the "now."

In contrast, individuals with a Future Time Perspective demonstrate advanced planning and organizational skills. As such, they may be better at dealing with long-term goals that require a spread of energy and resources. In turn, they may have difficulty with urgent tasks and working under time pressure. Balancing these perspectives in teams can improve overall performance.

4. Research Results and Discussion

The following lists the teams that participated in this study including each student's time perspective measured by the Zimbardo Individual Time Perspective Inventory. In addition, the length of time that it took for each team to solve the assigned problem is also indicated.

Table 3. *Results of the own research. Number of participants of a specific Time Perspective in a team and task completion time*

	Participants of a specific Time Perspective					
	Future	Past-Positive	Past-Negative	Present Hedonistic	Present Fatalistic	task completion time
Team 1	5	2	1	1	0	1h 35 mins
Team 2	6	3	0	0	0	1h 50 mins
Team 3	1	6	0	2	0	2h 10 mins
Team 4	8	0	1	0	0	2h 0 mins
Team 5	3	1	1	5	0	1h 19 mins
Team 6	1	1	0	6	1	1h 11 mins
Team 7	3	0	2	3	1	1h 33 mins
Team 8	5	3	1	0	0	1h 56 mins
Team 9	2	2	2	3	0	1h 39 mins
Team 10	3	0	1	5	0	1h 6 mins
Team 11	3	1	0	4	1	1h 25 mins
Team 12	1	3	0	3	2	2h 17 mins

Source: *Own research.*

All teams completed the task, delivering the correct final result in a time ranging from minimum of 1 hour 6 minutes to a maximum of 2 hours 17 minutes, facing various challenges. Author's observation of the teamwork of 12 groups leads to the following conclusions:

- Team 1: Solved the task with high accuracy, but time efficiency is slightly slower due to detailed planning and decision-making processes
- Team 2: Slower completion due to overemphasis on planning
- Team 3: Slower task completion and lack of innovative approach
- Team 4: Slower task completion potentially due to lack of flexibility and over-planning
- Team 5: Efficient under pressure and produced creative solutions
- Team 6: Fast task completion, but lower calculation accuracy due to impulsive decision-making
- Team 7: Moderate accuracy and completion time. Good performance under time pressure
- Team 8: Slow task completion due to reflection and planning
- Team 9: Moderate performance with average accuracy and time efficiency
- Team 10: Fast task completion but prone to errors due to a lack of future-thinking
- Team 11: Balance between speed and accuracy.
- Team 12: Low accuracy and poor performance due to impulsivity and prone to resignation.

Combining of the Zimbardo Individual Time Perspective with the Belbin Team Role test can enhance team member selection for the reasons identified below.

Belbin roles focus on natural preferences and behaviors in a team. They show what tasks a person does the best (e.g. Shaper shows initiative, Completer-Finisher is thorough and meticulous in completing tasks) while time perspectives, explain why people focus on these tasks. Consequently, both characteristics *facilitate improved role alignment* when planning tasks assignment.

Moreover, an individual time perspective explains the way team members think. This *allows team members to effectively align with project stages,* since it helps improve allocating roles and tasks that take into account how people function in the perspective of long or short-term goals.

Furthermore, recognizing the individual time perspectives of team members *can reduce tensions* resulting from differences in work styles and allows to plan schedules that fit the team's natural rhythm. For example, conflicts between a Shaper (focused on doing) and a team member with a present fatalistic time perspective can be reduced by adjusting the pace of work or assigning less responsibility or future tasks.

Balancing time perspectives increases team effectiveness. In tasks requiring innovation, people with the Plant role and a hedonistic present time perspective can generate ideas, while the Implementer with a future focus will successfully complete the tasks. This approach creates harmonious cooperation based on complementary time perspectives.

Projects that require risk analysis and reflection on the past will be more suitable for people with a positive past time perspective. When the employees with a future time perspective will feel more comfortable in tasks that require precision and strategy; people with a present hedonistic time perspective feel better in creative activities.

Recognizing individual time perspective can help personalize motivation strategies through taking into account the results of work in short or long-term perspectives and can consequently *increase individual motivation.*

5. Conclusion and Limitations

Zimbardo Individual Time Perspective (ZTP) concept allows for a deeper understanding of the motivations and work styles of team members, which, when combined with Belbin's roles, increases cohesion of the team. The simultaneous application of both concepts creates a solid foundation for building teams that are able to more effectively cope in a dynamic business environment.

Although the study employed an extensive number of participants the teams were formed according to the very specific features of the selected sample. Namely, teams were created to test the role-mix assumption by grouping people solely on the basis of their team role profile and ZTP focus.

Results might change if we took into account different individual characteristics of team members and their influence on team performance.

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