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Title:
Orchestration of Highly Skilled Multicultural Project Teams
What project managers could learn from conductors: A metaphorical journey through symphonic orchestras

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Stream:
Doctoral Colloquium / Leadership, Management and Talent Development

Submission type:
Working paper (3845 words)
Abstract

The different cultural backgrounds of project team members can lead to difficulties in social interaction. Social interaction has been found to have a direct impact on the outcome delivered by the project teams (see e.g. Bouncken (2009), Hong and Boyd (2010), Cortex (2012a), Cortex (2012b), Kerzner (2013)). A rich body of academic literature addresses these problems, but predominantly from a post project perspective (see e.g. Williams and Kendrick (2011)). More research is needed to consider how, from a pre-project perspective, these problems might be avoided, rather than dealing with them later on. This research seeks to answer questions on how the work of world-class conductors can be compared to the work of project managers of highly-skilled multicultural projects, what we can learn from this comparison that might help to reconsider project management models, methods or tools and how highly-skilled multicultural project teams might be organised, or orchestrated, to manage cultural interference?

The use of the metaphorical device of the orchestral conductor is employed as an academic research approach rather than a means of illustration. This is because a metaphorical comparison allows for a combination of knowledge from different disciplines. The discipline of conducting originates in the science of art and music performance and production in particular, whilst the discipline of project management has developed from economics and technical sciences. Like project managers, conductors use tools to interact with team members (musicians). By studying the conductor’s tools and behaviours, this study develops a new understanding of how project managers can improve their project management.

Keywords

Project Management, Project Manager, Project Team, Culture, Diversity, Conductor, Symphonic Orchestra.

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Introduction

Cultural diversity within a project team on the one hand opens new perspectives, creates new ideas, and demands innovative solutions. On the other, cultural diversity caused by the different cultural backgrounds of project team members, can lead to misunderstandings between the members, particularly where time restrictions and its uniqueness are the frame of the project. The reasons for this lie in different traditions, rituals, customs and religions. Each project team member has experienced this during the individual project team members’ development. All project team members in isolation may be competent, but because of their different backgrounds, there will often be difficulties in their cooperation. This can lead to ineffective project teams and eventually to a failure of the entire project team as a result and, therefore, the entire project’s success. Effective and efficient project teams are not only of great strategic necessity for every organisation but also important for future overall success. One of the industries with the worst record of unsuccessful projects is the technology industry where failures are said to exceed 50% of all projects undertaken (Symonds, 2011).

The Goal of projects can only be achieved with effective and efficient project teams and only with this can project success be facilitated and the overall success of the project holding organisation. However, one of the top 15 causes of project failure is cultural differences in global projects (Symonds, 2011). It is one of the big challenges in project management to create project teams at the start of each project and to orchestrate them during the term of the project. The project manager has to consider the cultural diversity of the team.

The different cultural backgrounds of project team members can lead to problems in social interaction. Social interaction has been found to have a direct impact on the outcome delivered by project teams (see e.g. Bouncken (2009), Hong and Boyd (2010), Cortex (2012a), Cortex (2012b), Kerzner (2013)). A rich body of academic literature addresses these problems, but mostly from a post-project perspective (see e.g. Williams and Kendrick (2011)). More research is needed to consider how, from a pre-project perspective, these problems might be avoided, instead of dealing with them later on.

Project teams are a group of individuals in direct relationship to a project manager within the specific timeframe context of a project. There is an assumption that orchestrating highly-skilled multicultural project teams is more complex than managing homogeneous low-skilled project teams, because intellectual and cultural difference provide an additional dimension to management (see e.g. McCann and Margerison (1989)). However, it has become apparent that there is not a single and universal way of orchestrating highly-skilled multicultural project teams (see e.g. Edmondson (2012)). The perceptions and interpretations of the project environment are unique. This defines every project and applies for every project team member (see e.g. International Organization for Standardization (2012)). The perceptions and interpretations of project members are affected by cultural factors, theirs and that of the context, which leads to different decisions and behaviours (see e.g. Hofstede (2001)). Such cultural differences affect approaches to managing highly-skilled multicultural project teams or interacting within these teams (see e.g. Hofstede (1980)). Furthermore, this has a direct impact on the outcome of these projects (see e.g. Bouncken et al. (2008)).

This research will answer three questions:

- Firstly, how can the work of world-class conductors be compared to the work of project managers of highly-skilled multicultural projects? To identify the attributes that world-class conductors and project managers of highly-skilled multicultural projects have in common.
- Secondly, what can we learn from the comparison that might help to reconsider project management models, methods or tools? To find aspects from the comparison to further develop existing project management models, methods or tools.
- Finally, how might highly-skilled multicultural project teams be organised or orchestrated to manage cultural interference? To identify opportunities in organising or orchestrating highly-skilled multicultural project teams to manage cultural interference.
The Research on what project managers could learn from conductor

The first task during the research was the literature review to find norms, books, and articles in the particular field of research about orchestrating highly-skilled multicultural project teams. Therefore, the generic research topic is not only used as ‘one’ search term, it is also divided into its basic components, such as ‘culture/cultural’, ‘project(s)’ and ‘team(s)’ (see light green centre part of Figure 1). The developed literature review research map depicts the relations and correlations between the separate search terms and, therefore, also between the different research fields.

![Research: Multicultural Project Teams](Figure 1: Literature Review Research Map (Source: Walther (2014)))

Furthermore, the literature review research map points out uncertainties related to wording and possible contexts. This was used to define search terms that cover findings using slightly different wordings or definitions. In cases where wordings were not used commonly, a definition used for the research was made.

For example no book or journal article was found within the literature review to grab all three terms of inter-cultural, cross-cultural and multicultural and to provide an exact definition of them, except from articles focusing more on the linguistic placement like Fries (2002). The United Church of Canada (2011) has published an electronic article in with different aspects have been combined and summarised.

Based on this and a blog from Terasaki (2013) the following definition has been formulated to clarify the wording used in this research.

**Inter-cultural:** (mainly based on United Church of Canada (2011), see also e.g. Terasaki (2013))

Comprehensive equality, mutuality and reciprocity exist in inter-cultural groups. The social structures and everyday interactions are defined by acceptance, celebration, diversity, equality, freedom, justice, mutuality, peace-making, respect and understanding.
Inter-cultural means there are mutually reciprocal relationships among and between the different cultures. People from different cultural groups interact with one another. They learn and grow together, build relationships and become transformed, shaped and moulded from each other’s experiences. These groups will focus on relationship building, deep connections, interactions, mutual gifting, respect and learning from one another. This will lead to a scenario where no one is left unchanged in the inter-cultural process. Some examine their own culture more deeply. Others are changed through their interaction with others, many learn more about what it means to be together in the group. Racial and cultural power imbalances are addressed and people are enabled to learn from each other and lead toward the transformation of all.

Cross-cultural: (mainly based on United Church of Canada (2011), see also e.g. Terasaki (2013))

If some members in a group are reaching across cultural boundaries, the group will reach the stadium of a cross-cultural group. The members try to build bridges of relationship between the different cultures by being open to changing, learning, listening and sharing.

To enable a cross-cultural group tools and methods of education and community building can be used. This can lead to consideration or relation between the cultures. Nevertheless, in this scenario, cultures are compared or contrasted with one another and one culture is deemed superior or inferior to another. Existing power differentials are still not addressed. This only allows for limited learning or exchange between the cultural groups. So cultural differences may be understood or acknowledged but are also managed in a way that does not allow for individual or collective transformation.

Multicultural: (mainly based on United Church of Canada (2011), see also e.g. Terasaki (2013))

In groups with different cultures where members live alongside one another, where the members value tolerance and celebrate one another’s culturally distinctive interaction, dress and related outward expressions of culture, a multicultural group is defined. Only superficial and polite social interaction is present.

Multicultural groups allow and include very distinct cultures with equal status. Members from different cultures are understood as standing side-by-side, at times in isolation from one another. There is a superficial celebration of contact and interaction without deep learning. Existing power differentials are not addressed. The contact does not allow for exchange between these cultures and tends to only focus on representation.

Transferring these definitions to research project teams, where each project is unique and is limited in time, each project team will be multicultural at the beginning. The goal of the research in this aspect could then either be defined as the optimised way to move from the multicultural project team at the beginning of a project to an inter-cultural project team in the shortest period of time possible or ways to hold the project team in a multicultural status for the whole project term. Alternatively, to find methods, instruments and tools to hold the project team in the scenario of a multicultural project team and to use the cultural diversity of all project team members in an optimised way to support the project goals and avoid any kind of team problems based on the cultural differences of the project team members.

A brief literature search on statements about “What are the qualities of a good conductor?” leads to differing perspectives. These perspectives about the qualities of a good conductor point out clearly that beyond the competence to read notes, understand music, know instruments etc. a good conductor requires additional soft skills such as emotional intelligence (see e.g. Abbas (2013)). This indicates an interesting aspect to look at in the discipline of project managers. The separation of mainly technical hard skills and the additional benefit of personal soft skills to develop project managers from a good to a level of excellence.
As result of the literature review, some very interesting sources were found that carry out literature reviews by themselves covering specific parts or directly surrounded fields of research or approach the research questions from a different point of view. These sources are:


- Lincoln (2012). How project managers learn cultural competence to manage multicultural project teams. Thesis at Columbia University, US.


During the preparation of this research work, the use of the metaphorical device of the orchestral conductor has changed from a means of illustration to the chosen academic research approach. This is because a metaphorical comparison allows the combining knowledge from different disciplines. The discipline of conducting originates from the science of art and music performance and production in particular, whilst the discipline of project management has developed from economics. Like project managers, conductors use tools to interact with team members (musicians). Furthermore, Bredillet (2005) emphasises that project management should be seen as a discrete discipline within the management science. Moreover, he also pointed out that project management is not only a discipline but also an art.

The use of metaphor-based analysis can be seen as an innovation in qualitative analysis methods (Sharp et al., 2005). Gentner (1983) pointed out that a metaphor can be seen as a structure mapping of knowledge from a base domain to a target domain. Thus, this approach is seen here as a mechanism to develop a depiction of a set of relations. To do so data analysis will be based on an open-ended inductive process. The aim is to build up a theory or, to be able to critically validate existing project management methods, tools and personal soft skills with the findings derived from conductors and musicians in orchestras. The use of semi-structured interviews helps to identify parallels and comparable attributes (Given, 2008).
These parallels and attributes will be used to develop clusters applicable in both contexts. A three-step process to analyse the interview data will help to use metaphor to interpret the qualitative data (Sharp et al., 2005). Firstly, to identify the initial mappings to verify that the particular metaphor is likely to be useful. Secondly, to seek confirmatory mappings to endorse that the metaphor supports existing observations about project management and thirdly to use properties of the metaphor to explore further findings. This process was developed by Sharp et al. (2005) and successfully used in qualitative research based on metaphor. The emphasis in this approach is vested in an explorative part, which seeks to investigate the properties of the metaphor within the gathered data.

Ballou (2008) opens the discussion finally from the point of view of a conductor towards the discipline of project managers asking why orchestra conductors are similar to project managers. A project is defined as “a unique set of processes consisting of coordinated and controlled activities with start and end dates, performed to achieve project objectives” (International Organization for Standardization, 2012).

The following Table 1 shows some aspects and attributes comparing the conductor with the project manager.

<table>
<thead>
<tr>
<th>The Conductor</th>
<th>The Project Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sets the tempo</td>
<td>Sets the pace of the team</td>
</tr>
<tr>
<td>Prepares the orchestra before the downbeat:</td>
<td>Prepares the team for the project:</td>
</tr>
<tr>
<td>• Defines the exact time to begin</td>
<td>• Defines the timeline for the project</td>
</tr>
<tr>
<td>• Gives a place to breathe</td>
<td>• Allows for clarity before starting</td>
</tr>
<tr>
<td>• Defines the dynamic level</td>
<td>• Sets boundaries for decisions</td>
</tr>
<tr>
<td>• Sets the mood</td>
<td>• Defines the seriousness of the work</td>
</tr>
<tr>
<td>Shapes the phrases</td>
<td></td>
</tr>
<tr>
<td>Balances the different instruments</td>
<td>Keeps the personalities aligned</td>
</tr>
<tr>
<td>Moulds the cadences</td>
<td>Defines the parameters for reporting</td>
</tr>
<tr>
<td>Facilitates the musicians to play at their best</td>
<td>Gives each person a place to use his or her skills and talents</td>
</tr>
<tr>
<td>Understands the power of position</td>
<td>Understands the power of position</td>
</tr>
<tr>
<td>Understands how to use personal influence over power</td>
<td>Understands how to use personal influence over power</td>
</tr>
<tr>
<td>Understands that players respond as directed – though this is influenced by inter-subjectivity</td>
<td>Understands that the ability of the team depends on the ability of the leader</td>
</tr>
<tr>
<td>Knows when to end the performance</td>
<td>Knows where to focus for final results</td>
</tr>
<tr>
<td>Understands that the quality of the result depends on the quality of the ensemble</td>
<td>Understands that the quality of the result depends on the quality of the team synergy</td>
</tr>
<tr>
<td>Is always in charge</td>
<td>Is always in charge</td>
</tr>
</tbody>
</table>

Table 1: Comparing Conductors and Project Manager (adapted from (Ballou, 2008))

Similarly, an orchestral performance is the outcome of a unique set of processes consisting of coordinated and controlled activities such as rehearsals, and the premiere. Achievement of both ‘projects’ requires project team members (or musicians) to conform to specific requirements, whilst subject to multiple constraints. Every project (or orchestral performance) has a definite start and end, and is usually divided into phases (or rehearsals). In terms of hierarchy, in project teams the project manager advises a group of sub-project managers. These sub-project managers advise their highly-skilled multicultural project teams. In orchestras, the conductor, the concertmaster and the principals of the instrument sections, and finally the musicians in these sections, provide the hierarchy. The cultural backgrounds of members in highly-skilled multicultural project teams vary as much as that in international orchestras. Such cultural diversity leads to different perceptions and interpretations and thus different decisions and behaviours in highly-skilled multicultural project teams, as well as in international orchestras.
The following Figure 2 tries to depict, or better to mirror, the frame in which the research is carried out and shows the boundaries in the field of project management and on the other side in the field of conducting symphonic orchestras.

Figure 2: Using the Conductor Metaphor to Research Project Manager Orchestrating a Highly-Skilled Multicultural Project Team (Source: Walther (2014))

As one of the tools used for symphonic orchestras, the classic chart to group an orchestra was translated into the project organisation. The project organisation in orchestration style as shown in Figure 3, generates a new perspective to vary the work from project managers towards different project teams or sub-projects. Other than, in the well-known organisation charts for projects, this chart organises or groups the different project teams and sub-projects by their different needs of orchestration or management. This is similar to the different instrument groups in an orchestra and the differences in the approach by the conductor to conduct them. Therefore, different approaches in orchestrating project teams, or sub-projects, also enables the consideration of cultural differences between the project members in the project teams or sub-projects. The project members in, for example, project controlling have different cultural attributes than, for example, the project members in product/service design or those in implementation in common.

The project organisation in orchestration style suggests that in multicultural project teams diversity is not only given by the project members as fact but that ‘diversity’ has also be in the management approaches towards the teams or sub-projects as well as to the individual project member. From the point of view of project managers, this demands much more attention and awareness. Culture and cultural differences are not learnable but the awareness is. Looking in most of the educational programs for project managers the focus is clearly set on the hard skills. The future project manager primarily leans about the basics, the tools and technics in project management. This kind of education can develop good project managers but as in the profession of conductors, the step from a good to a world-class conductor cannot be crest by learning more instruments, leaning more about notes or learning more about orchestra settings. The key are the soft skills. The awareness of culture and cultural differences, the need of different approaches to orchestrate the different instrument groups by their individual and common needs.
There is an assumption that orchestrating highly-skilled multicultural project teams is more complex than managing homogeneous low-skilled project teams, because intellectual and cultural difference add additional dimensions to management (see e.g. McCann and Margerison (1989)). However, it has become apparent that there is no specific and universal way of orchestrating highly-skilled multicultural project teams (see e.g. Edmondson (2012)). The perceptions and interpretations of project members are affected by cultural factors (theirs and that of the context), which leads to different decisions and behaviours (see e.g. Hofstede (2001)). Such cultural differences affect approaches to managing highly-skilled multicultural project teams or interacting within these teams (see e.g. Hofstede (1980)). Furthermore, this has a direct impact on the outcome of these projects (see e.g. Bouncken et al. (2008)).
Outlook

The first research question on how the work of world-class conductors can be compared to the work of project managers of highly-skilled multicultural projects has been answered. The parallels between the work of a conductor in front of a symphonic orchestra and a project manager with a highly-skilled multicultural project team have been demonstrated. Attributes that world-class conductors and project managers of highly-skilled multicultural projects have in common have been identified. This has not only shown the parallels on the “technical” level, but also on the level of soft skills and personal attributes.

The translation of some tools from the discipline of a conductor towards project management have shown benefit and an interesting new point of view for project management. The translation plays a major role in answering the second research question, about what can be learned from the comparison that might help to reconsider other project management model, methods or tools is ongoing. The work to find aspects from the comparison to further develop existing project management models, methods or tools. However, the project organisation in an orchestration style, as shown in Figure 3 in particular generates a new perspective on comparing and contrasting the work of project managers to the work of different project teams or sub-projects. Different approaches in orchestrating project teams or sub-projects also enable the consideration of cultural differences between the project members in the project teams or sub-projects. The project members in, for example, project controlling do have different cultural attributes in common, than for example the project members in product/service design or those in implementation.

Further interviews with conductors of symphonic orchestras around the world will generate more data to challenge the tools and techniques from project managers in their work with highly-skilled multicultural project teams. The interviews will focus on the “technical” part of the work of a conductor with the symphonic orchestra, as well as on the very personal and individual approach. Thereby, data about the use of soft skills will be generated. Furthermore, other specific tools from the discipline of a conductor will be evaluated regarding their value for project management. In addition, the interview data will help to answer the last research question about how highly-skilled multicultural project teams might be organised or orchestrated to manage cultural interference. This will identify opportunities in organising or orchestrating highly-skilled multicultural project teams to manage cultural interference.


