Belbin and Culture Report

As an international 'language' for recognising and codifying behaviour, Team Roles are designed to break down cultural barriers and promote mutual understanding. The Belbin inventories and reports have been translated into eighteen languages and our Belbin representatives operate in more than thirty countries.

Diversity can influence a business on many levels and ultimately confers competitive advantage.

McKinsey's 2015 research reported findings that companies in the top quartile for racial and ethnic diversity are 35% more likely to have financial returns above national averages for their respective industries. And whilst correlation does not equal causation, their research also found that bottom-quartile companies underperformed too.

McKinsey speak of 'a virtuous cycle of increasing returns', which sees culturally-diverse organizations better able to win and retain talent, improve customer relations and employee engagement, and benefit from better decision-making.

Harvard Business Review explains how working with others with different opinions, thoughts, beliefs, norms, customs, values, trends, and traditions can challenge 'stale ways of thinking' and sharpen individual performance. Indeed, just as behavioural diversity can bring success (through the deployment of diverse Belbin Team Role behaviours), cultural diversity can help a team to remain objective, examine biases and engage in more accurate group thinking.

Belbin: a methodology with a rich international history

With the importance of diversity at the heart of Belbin's message, and given our global reach and use in multinational organizations, we wanted to explore the relevance and use of Belbin in different cultural contexts, by analysing differences between Team Role distributions in different countries.

Belbin: a methodology with a rich international history

Dr Belbin's original research – during which Team Role behaviours were discovered – took place in Henley, UK in the 1970s, where managers attending management courses were observed over a period of nine years. Contrary to popular understanding, the management courses at Henley attracted managers from all over the world, giving Dr Belbin's research the benefit of cultural diversity from the outset.

We currently use an international norm base when generating a Belbin report. This means we compare individuals to a worldwide data sample to determine their Belbin Team Roles. If cultural variation exists, however, there is an argument for using separate norm bases to address these differences, but it isn't a simple matter.

How do we address cultural variation?

Should we work according to first language, the country in which an individual works, or their country of origin? Each of these elements might have an impact on how someone responds to the questionnaire, and the interactions between factors may be complex. In addition, each organization operates within the context of certain cultural expectations, practices and values, and this picture becomes even more complex where multinationals are concerned. It is impossible to determine which factor or factors predominate in setting the cultural 'tone' in which Team Roles play out.
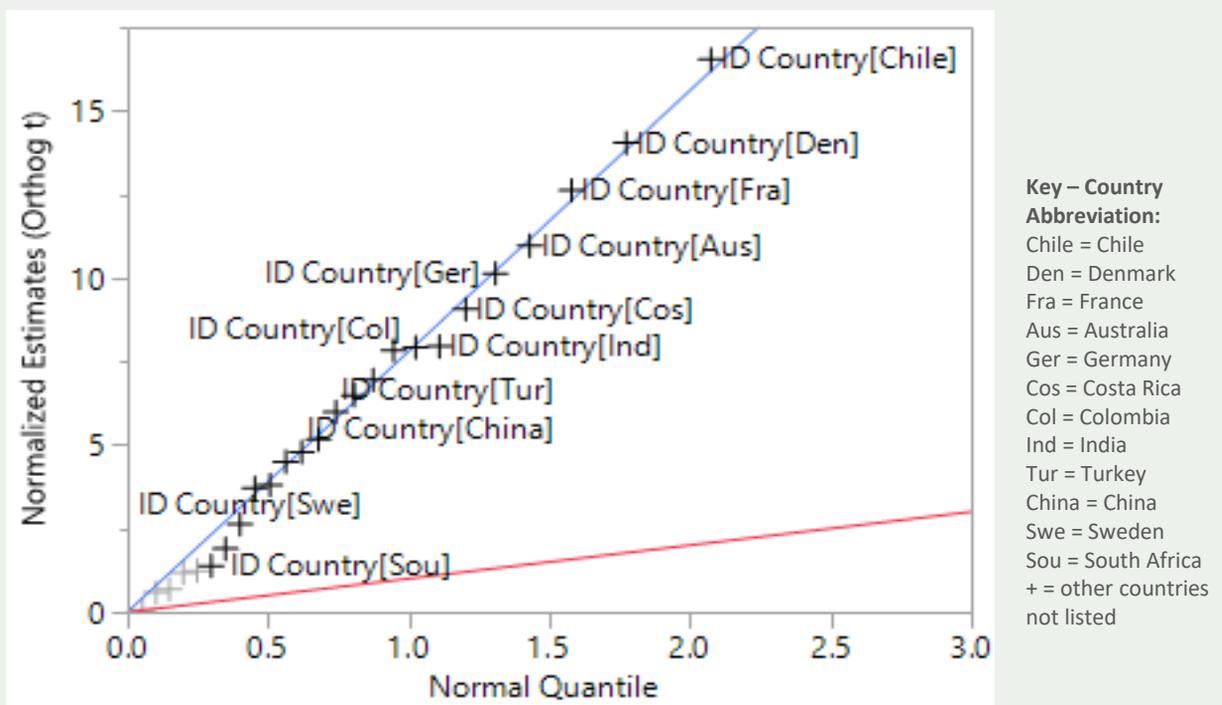
Our research

We analysed data from the latest version of Belbin Interplace (Interplace 7) gathered between 2012 and 2017, and consisting of **190,319 individuals in 26 countries.** The sample sizes in each country varied greatly, so the countries included are 24 of the 26 where we were able to collect sufficient data to be confident of the reliability of the findings.

First, we compared scores within roles at certain percentile points across countries.

This is important because a higher Team Role score signifies a greater Team Role inference, so comparing mean scores between countries is of less importance than making comparisons at higher percentile points. We used half-normal plots to analyse variance between countries. If a country deviates from this line, then it can be considered an outlier.

The graph below shows the results for the Plant Team Role:

Key – Country Abbreviation:
Chile = Chile
Den = Denmark
Fra = France
Aus = Australia
Ger = Germany
Cos = Costa Rica
Col = Colombia
Ind = India
Tur = Turkey
China = China
Swe = Sweden
Sou = South Africa
+ = other countries not listed

Analysis

For Plant and Shaper roles, there were no outlying countries. For other roles, there were a group of outlying countries which featured more than once. These countries were not from a certain geographical area, so we **could eliminate the possibility of a particular geographical bias** arising from the cultural provenance of the questionnaire.

What's more, **the differences we found at the mean were not present at the 80th percentile point**, where Team Role inference is drawn, so we concluded that the variation we did find does not constitute a meaningful variation.

The results show a coherent distribution into which the majority of countries fit, suggesting that means and variability within roles is low overall.

Next, we studied the relationship between roles in different countries using Principal Components Analysis (PCA). PCA looks at the correlations between responses and finds new independent trends, called principal components.

A generic 'fingerprint' was compiled by analysing data from all countries together. Separate PCAs were performed with the data from each country, to see how these fingerprints compared with the generic one.
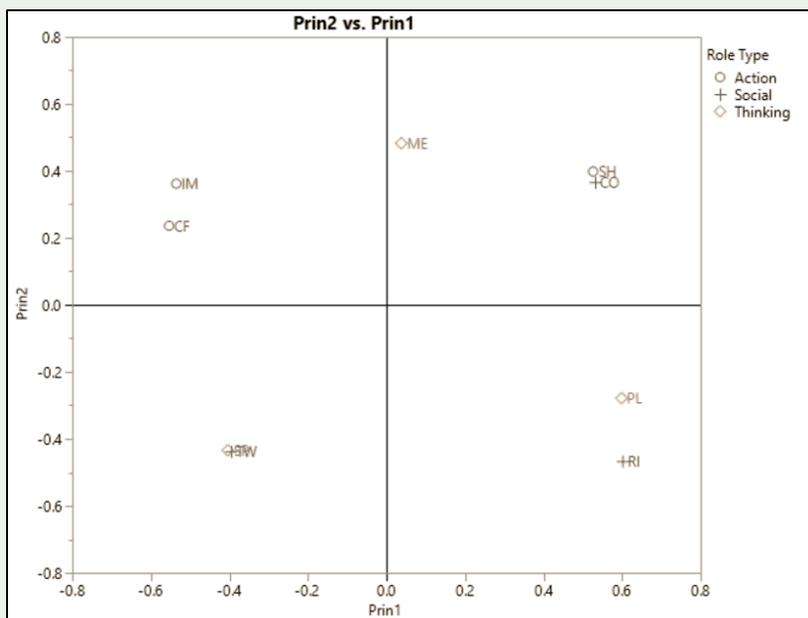
Key – Team Role Type:
Action Roles
o SH = Shaper
o IM = Implementer
o CF = Completer Finisher

Social Roles
+ CO = Co-ordinator
+ RI = Resource Investigator
+ TW = Teamworker (hidden with ◊ SP)

Thinking Roles:
◊ ME = Monitor Evaluator
◊ PL = Plant
◊ SP = Specialist (hidden with + TW)

Team Role Opposites

The graph for all countries combined clearly shows the Team Role opposites negatively correlated:

- Plant/Implementer
- Resource Investigator/Completer Finisher
- Co-ordinator/Specialist
- Shaper/Teamworker

Additionally, those styles which have similarities (and are often found in combination) are shown as closely correlated.

When comparing countries, the most volatile role was Monitor Evaluator. Whilst the position changed, the role was rarely correlated with others. This is consistent with Team Role theory, as Monitor Evaluator does not have one particular Team Role opposite.
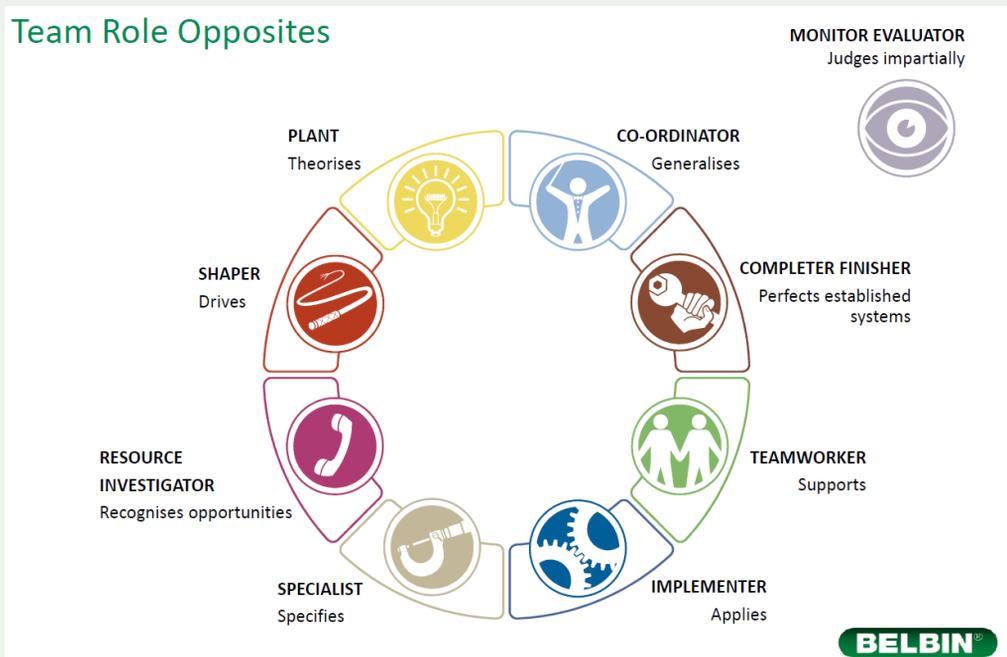
Principal Component Analysis revealed that Team Role opposites are indeed negatively correlated.

Methodology

Finally, we wanted to investigate whether spoken language or geographical area influenced Team Role results.

We compared the distributions in English-speaking and Spanish-speaking countries to see whether there were any discernible patterns. We also grouped some countries by geographical area – Western European, Eastern European and Scandinavia. (Regrettably, we do not have sufficient data to replicate this for other continents.)

The results for English-speaking countries were most similar to the overall pattern, which is unsurprising given the predominance of data from English-speaking countries in our overall sample. In Spanish-speaking countries, there was a lower correlation between Shaper and Co-ordinator, with a tendency for Shaper to move closer to the other task-focused roles, Implementer and Completer Finisher.

The Scandinavian countries had two changes in common from the overall pattern – Monitor Evaluator moved significantly, suggesting a negative correlation with Shaper and Co-ordinator. Completer Finisher showed a closer correlation with Specialist and Teamworker. Since these countries have different translations of the inventory, this suggests a cultural, rather than a linguistic, difference in Team Role distribution.

Our conclusion? Overall, neither within-role nor between-role differences are significant.

The within-role distributions vary from one country to the next, but there is no over-arching pattern which suggests bias. There are a group of countries which appear to show more variability than others, but the effect for these countries is not consistent, and whilst active at the mean, this variability does not unduly affect the higher end of the distributions (around the 80th percentile point) in any case.

Conclusion

The between-role analysis shows some differences occurring between groups of countries with a common first language or in a certain geographical area. In practical terms, this doesn't affect the calculation of Team Role profiles in different countries, but it does suggest that the correlations of Team Roles – and therefore the popularity of certain Team Role combinations – may differ according to cultural considerations.

In examining cultural differences, it is important not to lose sight of other considerations, such as organizational culture. For organizations using Belbin Team Roles to improve teamworking, it may be an important logistical consideration for individuals to be compared to the same norm group, so that the findings may be said to be context-specific, rather than influenced by other factors which do not apply equally to all team members.

We want to use this information going forward.

We're going to continue working to an 'international' norm base to derive Team Role reports, and to make this the default for practical purposes, but we want to update it to ensure that it reflects multicultural working as best it can. In addition to this, we hope to offer alternative norm bases where we have sufficient data to do so, and this will be a focus of our future development work here at Belbin.

References

[1] As at the time of publication, the Belbin Self-Perception inventory is commercially available in: Chinese (simplified), Czech, Danish, Dutch, English, Estonian, Finnish, French, German, Greek, Italian, Norwegian, Polish, Romanian, Russian, Spanish, Swedish and Turkish.

[2] 'Why diversity matters', McKinsey & Co., January 2015: https://www.mckinsey.com/business-functions/organization/our-insights/why-diversity-matters

[3] 'Why Diverse Teams Are Smarter', November 2016: https://hbr.org/2016/11/why-diverse-teams-are-smarter

[4] For a full discussion of the ipsative and non-ipsative properties of the Belbin Self-Perception Inventory (SPI), please see: 'The "Belbin" Team Role inventory: reinterpreting reliability estimates', Stephen Swailes and Tim McIntyre-Bhatty, Journal of Managerial Psychology, February 2002.

Appendix

The following data was included in the analysis:

Country	Abbrev.	Sample size (n)	Inventory completion language
Australia	Aus	12011	English
Chile	Chile	1382	Spanish
China	China	11440	Chinese (simplified)
Colombia	Col	543	Spanish
Costa Rica	Cos	1354	Spanish
Czech Republic	Cze	901	Czech
Denmark	Den	5930	Danish
Estonia	Est	1961	Estonian
France	Fra	8859	French
Germany	Ger	2119	German
India	Ind	10386	English
Ireland	Ire	2087	English
Italy*	Ita	86	Italian
Netherlands*	Ned	25	Dutch
New Zealand	New	16443	English
Norway	Nor	896	Norwegian
Poland	Pol	818	Polish
Romania	Rom	1986	Romanian
Singapore	Sin	2588	English
South Africa	Sou	11923	English
Spain	Spa	10323	Spanish
Sweden	Swe	1039	Swedish
Turkey	Tur	556	Turkish
United Kingdom	UK	58435	English
United States & Canada	US	25950	English
Uruguay	Uru	278	Spanish

*Data from Italy and the Netherlands was omitted from some parts of the analysis owing to the small sample size.

These countries were those where Belbin had available data, including inventory completion language.