Using "Behavioral Profiling" to Identify "Successful" Project Managers[1]

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ABSTRACT

Given the observation that some people are just naturally "good" at managing projects and consistently are able to deliver "successful" projects, and given there were no obvious educational, certifications, age, sex or any other demographics that seemed to differentiate them, the research question that resulted in this paper is whether there are any behavioral attributes which can serve to predict with any accuracy who is likely to be a "natural" project manager. This paper explores a pilot research project done to see if the behavioral profiles of successful project managers could be created (it was) and to see if that behavioral profile was a reliable predictor of who would likely to be a good or successful project manager. The paper concludes that while there is anecdotal evidence to support such a claim, that further research is necessary to help validate by adjusting the behavioral profile which was created using the Harrison Assessment Instrument.

INTRODUCTION

Have you ever noticed that some people are just "naturally" good project managers? That some people, when given a project, seem to be able to quickly define what needs to be done, find the right people, then organize, delegate, lead and motivate the team to complete the project? And in doing so, they seem to make it look easy?

In 40+ years as a practitioner, I saw enough examples of these "natural" project managers that I wanted to explore whether or not they had anything in common.

Simple observation and reflection made it clear that gender, age, education, ethnicity, religion, formal training or job title was not the differentiator. So what was? Given such broad diversity, it became obvious that it had to do more with their personalities- that there must be some behavioral traits that differentiated those who were naturals from those who had to work at it.

[1] Second Editions are previously published papers that have continued relevance in today's project management world, or which were originally published in conference proceedings or in a language other than English. Original publication acknowledged; authors retain copyright. This paper was originally presented at the Joint 2011 Conference of the Australian Institute of Project Management (AIPM) and International Association of Project Management (IPMA) in Brisbane, Australia. It is republished here with the author's permission.

Initially, I turned to the work of Max Wideman[2], who had done some research using Myers Briggs, but that proved to be too generic, with the initial research indicating that there were "naturally successful" project managers coming from each of the 16 MB types. This meant we needed a finer measure- an instrument which went deeper than Myers Briggs.

METHODOLOGY

Looking for something more granular than Myers Briggs, I also investigated Caliper, which measures some 23 variables; Hay-Mcber, which measures 6 leadership variables over 4 dimensions, yielding 24 possible combinations; Again, preliminary research (unpublished) indicated that a much more detailed instrument was necessary to be able to determine which, if any, behavioral traits were common to all naturally successful project managers. Eventually my quest for something more granular finally turned up a Dr. Dan Harrison, and his Harrison Assessments (HA).[3] Unlike Myers Briggs[4] , Kiersey[5], Caliper or Hays McBer, the HA Instrument measured some 155 different behavioral traits. Furthermore, the HA instrument offers two very important advantages:

1) HA has a feature that measures the ***consistency*** of the responses that provides an accurate measure of how truthful the respondent is being, or whether they trying to game the system.[6]
2) Instead of using bi-polar scales, the HA uses a paradox matrix, which combines two bi-polar scales, producing an X-Y coordinate chart. (See Figure 1) This paradox matrix measures an aggressive or dynamic trait against a passive or gentle trait.

The HA instrument measures 12 of these paired paradoxes to produce a much more detailed view of the individual assessed in the behavioral profile of project manager.

[2] Wideman, R. Max. http://www.maxwideman.com/papers/profiles/myersbriggs.htm last accessed 29 August, 2011
[3] See http://www.harrisonassessments.com/ accessed 9/4/09
[4] See http://www.personalitypathways.com/ accessed 9/4/09
[5] See http://www.keirsey.com/ accessed 9/4/09
[6] "Gaming the System" simply means using the rules, policies and procedures of a system against itself for purposes beyond that for which the rules were intended. See http://www.wikitruth.info/index.php?title=Gaming_the_system accessed 9/4/09

Figure 1

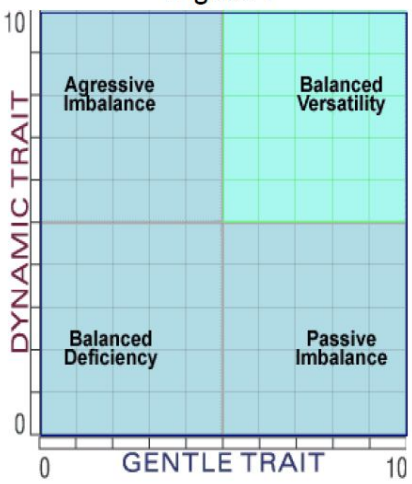

Figure 1 Illustrating the Harrison Paradox between Dynamic and Gentle Traits [7]

Having found what I was looking for, I approached Dr. Harrison who suggested I contact his regional representative and Master Distributor, John Suermondt. John, who is now living in Perth, Australia, has more than 20 years of global experience in behavioral assessment using Harrison Assessments.

All of the participants in the pilot study came from people in the various in-house classes that I teach for our Fortune 500 clients. These classes included:

The Project Management Institute's ("PMI") Project Management Professional ("PMP") certification exam; The Association for the Advancement of Cost Engineering's ("AACE") Certified Cost Consultant/Certified Cost Engineer ("CCC/E") exam preparation course;
My graduate level university classes at ESC Lille Masters of Science in Project Management
My graduate students from The University of Western Australia's Masters of Energy Systems, or The Masters in Petrochemical Engineering degree.

A pilot group of 28 practitioners were selected who were deemed "successful" project managers. To be deemed "successful" these individuals had to pass three tests:

1. They had to be active in the position of "Project Manager" in their company
2. They had to have demonstrated to me in the classroom environment that they had exceptional leadership skills (i.e. in the top 5% of the class) and
3. They had to have at least 5 years of working experience as Project Manager.

This initial pilot study group of 28 consisted of:

[7] See Appendix 1 Harrison Assessment Report of "Peter Sample", page 6 of 22

Exactly half men (14), half women (14)
9/28 = 32% Asian
6/28 = 21% North American
5/28 = 18% Australian/New Zealand
5/25 = 18% European (including Eastern Europe, Northern Africa and Turkey)
3/28 =11% Central or South America

Furthermore, the industries they represented were:

Oil, Gas or Mining	9/28 = 32%
Telecommunications or IT	9/28 = 32%
HR, Sales or Marketing	5/28 = 18%
International Development	3/28 = 11%
Finance	2/28 = 07%

FINDINGS

Based on the initial pilot study, the research indicated that there are 7 traits, which, when combined with the other attributes are reliable predictors of "success" as a project manager.

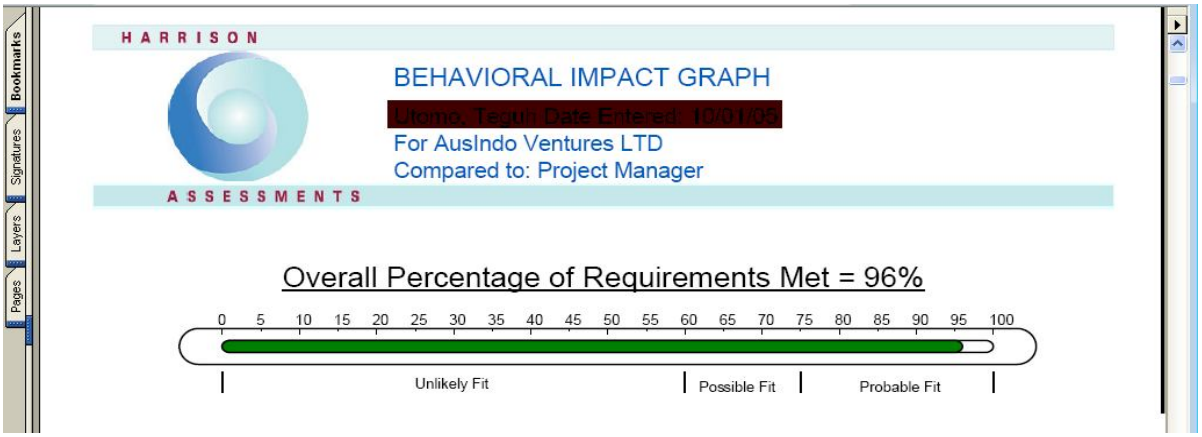

FIGURE 2- Overall Results of "Peter Sample" 8

The illustrations used in this paper came from the top scoring individual from the initial pilot study, who scored 96% as well as scoring 90% on his CONSISTENCY score- meaning he was honest in his answers and did not try to "game" the system. This consistency or perhaps we might say "integrity" score has proven to be an interesting side finding, given that those who scored low in their consistency also had a tendency NOT to be very good project managers.

[8] See Appendix 1 Harrison Assessment Report of "Peter Sample", page 1 of 22

Interesting to note that this specific individual, is an underground mining superintendent from a major gold mine in Indonesia who has adapted project management methodologies for use in an operational environment, thus exemplifying the application of Bloom/Anderson and Krathwols' [9] higher order cognitive skills of analysis, evaluation and synthesis, which we believe to be essential for project managers, given the unique and ever changing realities of project management.

The Figures below show what went into making the overall score, shown in Figure 1.

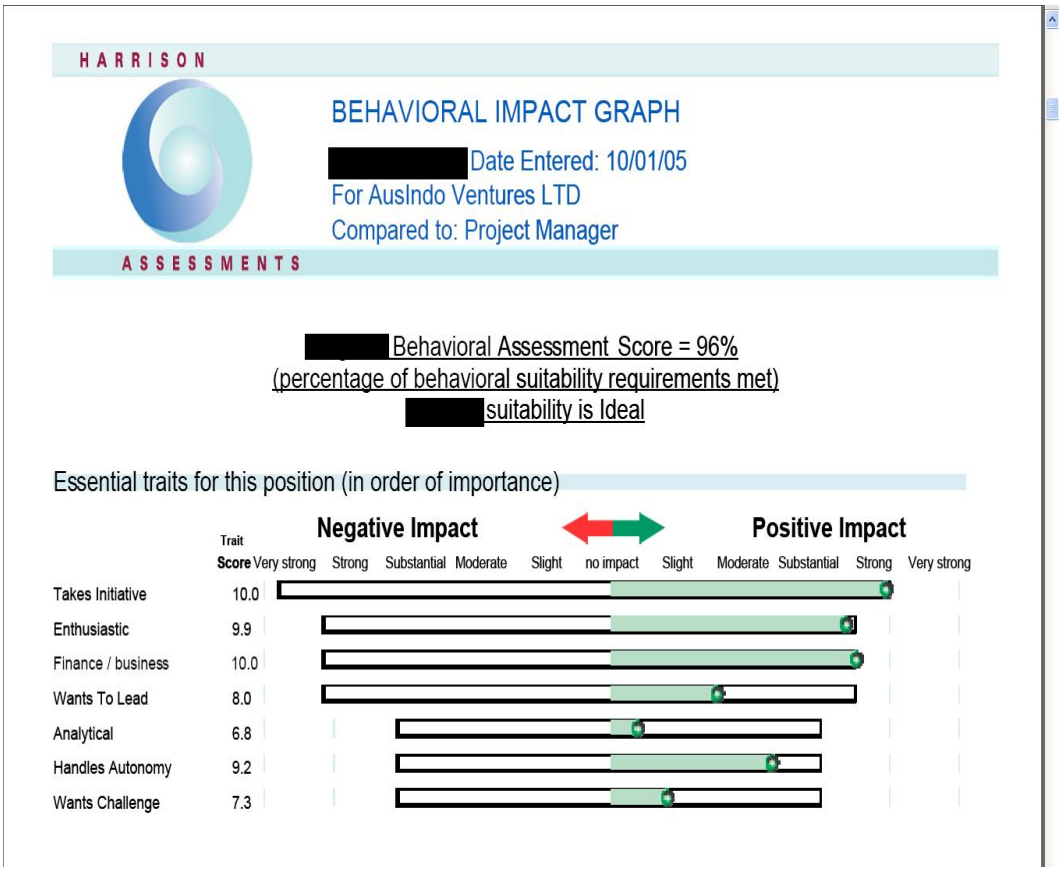

FIGURE 3- Essential Traits for "success" as a project manager.[10]

Figure 3 shows the Essential Traits (in order of importance) or ***core*** attributes that were reliable predictors of success in the customized template of Project Manager. That is, ***all*** of the 28 people in the pilot study scored high in these traits. To clarify further on these seven traits:

[9] Atherton J S (2011) Learning and Teaching; Bloom's taxonomy [On-line: UK] retrieved 29 August 2011 from http://www.learningandteaching.info/learning/bloomtax.htm last accessed 29 August 2011
[10] See Appendix 1 Harrison Assessment Report of "Peter Sample", pages 1 & 2 of 22

1. **Takes Initiative** – "*The tendency to perceive what is necessary to be accomplished and proceed on one's own"*. All 28 scored substantial or strong in this attribute. These are all self starters

2. **Enthusiastic** – "*The tendency to be eager and excited toward one's own goals*". Likewise all 28 scored substantial or strong in this attribute as well. These people are able to motivate and energize those around them;

3. **Finance/Business** –"*The interest in commerce or fiscal management*". Again, all 28 scored very high in this attribute. They had a "natural head" for business.

4. **Wants to lead** –"*The desire to be in a position to direct or guide others*" . So much for project management being the "accidental profession".

5. **Analytical** – "*The tendency to logically examine facts and situations (not necessarily analytical ability)*" - They did not succumb to "paralysis by analysis". They were able to gather enough facts to make sound business and technical decisions, but did not agonize over making them.

6. **Handles Autonomy** –"The tendency to have the motivation and self-reliance necessary for a significant amount of independence from immediate supervision (does not indicate the necessary job related knowledge)" - These people did ***not*** have to be told what to do nor when to do it. Not only did they take initiative, and were enthusiastic, but they were able to figure out what needed to be done and when.

7. **Wants Challenge** –"The willingness to attempt difficult tasks or goals". This group tended to be impatient and easily bored and wanted to attempt difficult tasks

The second grouping of traits in this customized position template of Project Manager is called ***Desirable Traits***. As with the Essential traits they are listed in descending order of importance. So if a person scored low, it would detract from their overall suitability score. Put another way, it was not important for them to scored high in these traits, but rather that they did ***not score low,*** since this could have a potential negative impact on the overall probability of them being successful as a Project Manager.

Figure 4: Example of Desirable Traits Assessment Score [11]

Figure 4 shows a listing of Desirable Traits. As noted previously, scoring high (i.e. to the right) researched showed was not important but if the candidate did score low, indicating a potential negative impact, to the left, it would lower their overall PM suitability. As in the essential traits, the box to the left/right of each trait indicates the ***potential*** negative/positive impact of that trait on performance. The colored area within the box indicates the ***probable*** impact on performance of the candidate's tendencies (i.e. their score) for that trait.

This part of the research proved to be very interesting, because when we first started out, we expected that Organizing, Planning, Handling Conflict, Managing Stress and a Systematic Approach would be the top ranked predictors, but our initial research showed otherwise.

Then we identified another set of attributes described as: ***Traits to Avoid***. (See Figure 5) These are "killers" in which if a person had a high score, indicating to the left on any of these, it would be unlikely that they would succeed as project managers at all! If a person scores even moderately to strongly to the left, it is unlikely that he or she will succeed as a project manager. These are shown in Figure 5.

While these traits are pretty obvious, and would probably be unacceptable to anyone working in a management position, the primary impact would be to lower the overall score.

[11] See Appendix 1 Harrison Assessment Report of "Peter Sample", pages 2 -4 of 22

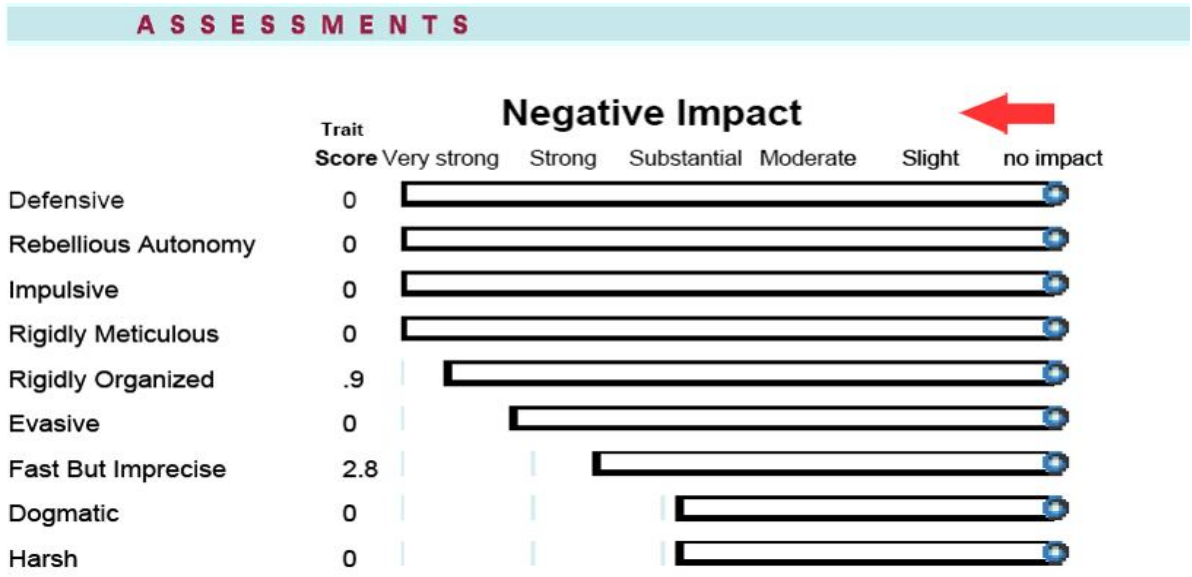

Figure 5: Example of Killer Attributes Assessment Score[12]

HOW CAN WE USE THE BEHAVIORAL PROFILES

There are multiple reasons to justify the use of the results or outputs from assessing our employees or potential employees against the HA Project Management Template.

1) To screen those individuals being considered for hiring by our organization to be project managers;

Despite the proliferation of exam based credentials and certifications, they are not reliable predictors of whether any individual has what it takes to be "successful", especially in a new or different environment. This will help corroborate claims that the person is or is not "successful" as a project manager. (After all, who would ever give bad references?)

2) To screen those currently working in our organizations to see if there are any with unrealized potential to become project managers without hiring new employees;

We had an example from a leading telecommunications client who has a policy of only selecting or promoting to the position of project manager, people who are engineers. Yet in having worked for several years with one of their HR people, we became convinced she would make an EXCEPTIONAL project manager. We convinced her boss to put her in our training course and not only did she graduate top in the class, but she went on to enjoy

[12] See Appendix 1 Harrison Assessment Report of "Peter Sample", pages 4-5 of 22

several years success in that organization as a project manager, until she could no longer be promoted because she didn't have an engineering degree. So she left the company and went to a competitor, where she is enjoying considerable success and the respect and remuneration that comes with it.

3) To help us develop interventions to help those currently in our organization become "better" project managers.

Based on the concept of "better the devil you know than the potential devil you don't know" it may well be more advisable to develop the people currently in your organization than try to hire in people from the outside. The challenge we face is that unlike learning to use the tools and techniques, achieving behavioral changes takes a long time and simply having people attend courses without a robust career path development program in place which measures and rewards behavioral changes, any interventions are likely to fail.

4) To help us select those in our organization who might get full or better use of project management related training and certifications.

One of the reasons we found ourselves doing this research is because as trainers, we were getting frustrated with people in our training courses who were not getting the full value of the experiential based training we offer. Because our training is relatively expensive, we didn't want our clients sending up people who were not likely to benefit from experiential based program and project management training.

FROM THEORY TO REALITY

Since development of the initial behavioral profile we have tested it out on two ASEAN based telecommunications companies- one a large Telco services provider (owner organization) which consisted of some 100 participants being selected for participation on a newly formed PMO team; and a second for a large global telephone and internet equipment manufacturer/installer, (contractor) which consisted of some 140 subjects, being selected to receive advanced project and program management training. While Non-Disclosure Agreements (NDA's) prevent us from sharing the specifics, in both cases, those who scored high on the Harrison Project Manager profile tended to perform high in the subsequent experiential based project management training, and conversely, those who scored lower tended to do less well in the training environment than those who scored higher. However, in neither case study was any follow up research done to see if those same people went on to become "successful" or "less successful" project managers AFTER the training was completed.

An interesting side note was that there was a favorable correlation between the CONSISTENCY scores and those who succeeded in our program- that is, the higher the consistency score, the

more self-integrity or more genuine the participants were in their answers, the more likely they were to succeed in an experiential based project and program management training course.

This brings up the second and perhaps more relevant yet challenging application . Given that most organizations do not have the luxury of being able to hire project management specialists, but have to select them from within their existing pool of possible or potential project managers, and given the top scoring candidates, being recognized as being naturally good project managers, have more than likely already been assigned, it is possible for us to use the results of the HA assessment to improve or raise the effectiveness of those who score somewhere in the middle- not totally unsuited to be project managers, but not in that top 20%? Say between 60% and 80%?

Enter once again the Harrison Paradox Matrix. In addition to assessing individuals against a specific behavioral profile, the HA instrument also evaluates candidates against a preset 3 X 4 matrix of attributes generally recognized to be positive or desirable to have. As we can see from figures one and two below, the ideal score falls in the upper right hand quadrant, which represents a clear balance between the "gentle" traits shown on the Y or horizontal axis and the dynamic or aggressive traits, shown on the vertical or X axis. Any score in the upper left hand quadrant is known as "balanced versatility" and represents the desired or ideal behavioral profile. Likewise, any score in the lower left hand quadrant represents weakness in both the dynamic and the gentle traits, which is known as a passive imbalance, meaning this individual is weak in both the dynamic and the passive or gentle traits and needs the appropriate training to help build his/her confidence. If we look at the upper left hand quadrant, we see an example of a person with an aggressive imbalance, meaning they are OK on the Dynamic trait, but weak in the passive trait while just the opposite applies to the lower right quadrant, where we have a passive imbalance- fine on the passive trait but it needs to be balanced by more strength in the dynamic trait.

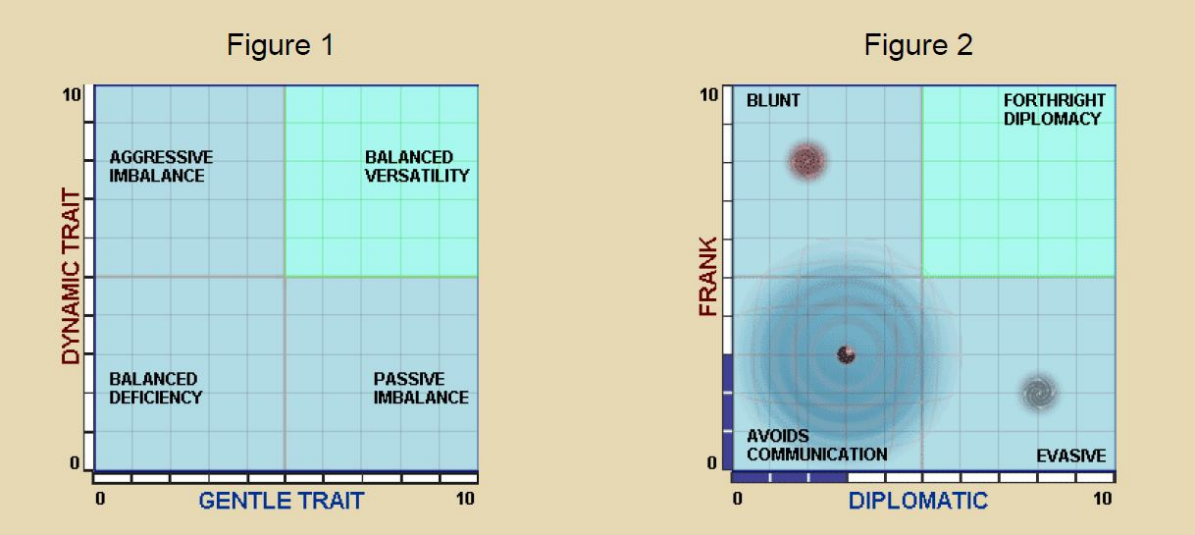

FIGURE 6 - Figures 1 and 2 from the attached HA REPORT SHOWING THE SCORING CONVENTIONS[13]

As we can see in Figure 7 (below), the HA Paradox report show the dynamic relationships of the pairs of traits for each of the 12 paradox pairs. The column titles INTERPERSONAL, ACHIEVEMENT and LEADERSHIP are broad subject categories.

The row titles INITIATE, MOTIVATE , IMPLEMENTING and MAINTAINING are progressive stages of action. For example, the Innovation Paradox is the IMPLEMENTING stage of ACHIEVEMENT column.

> INITIATE- not only the ability to initiate projects, but self and others;
>
> MOTIVATE- again not only the ability to motivate self, but others;
>
> IMPLEMENTING- which is the ability to get things done, not only through your own efforts, but those of others as well;
>
> MAINTAINING- the ability to persevere and show stability over time, neither wildly optimistic nor easily discouraged.

Together, these 12 paradoxes provide insight into what BEHAVIORAL CHANGES this particular project manager would have to make to raise his/her score higher, and implicitly, become an even better, more effective project manager in the process.

[13] See Appendix 1 Harrison Assessment Report of "Peter Sample", page 6 of 22

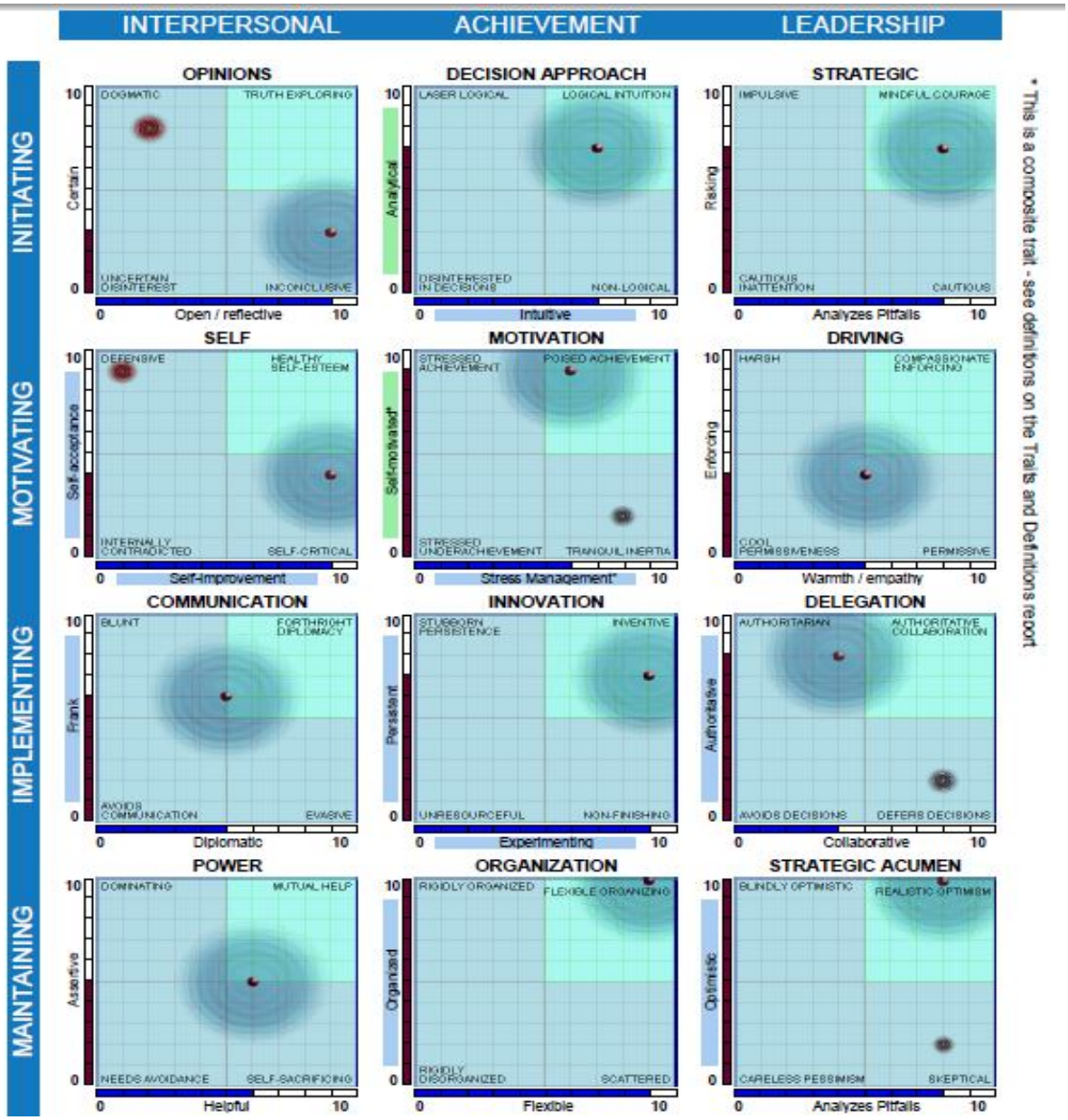

FIGURE 7- HA Instruments Standard 3 X 4 Paradox Matrix [14]

As we can see from Figure 7, even though this individual scored 96 overall in his suitability as a project manager, and scored in or near the Balanced Versatility Quadrant in many of the 12 paradox comparisons, there are still character weaknesses that he could address to make him an even better project manager.

[14] See Appendix 1 Harrison Assessment Report of "Peter Sample", page 8 of 22

Figure 8 below gives us some examples of how to interpret the results by providing several examples of what kinds of improvements this individual could undertake as part of his career path development plan, understanding that behavioral changes are amongst some of the most difficult to undertake and that unlike taking a 3 or 5 day course, behavioral changes take place over extended periods of time- usually at least one year and more than likely, several years before any meaningful improvements show.

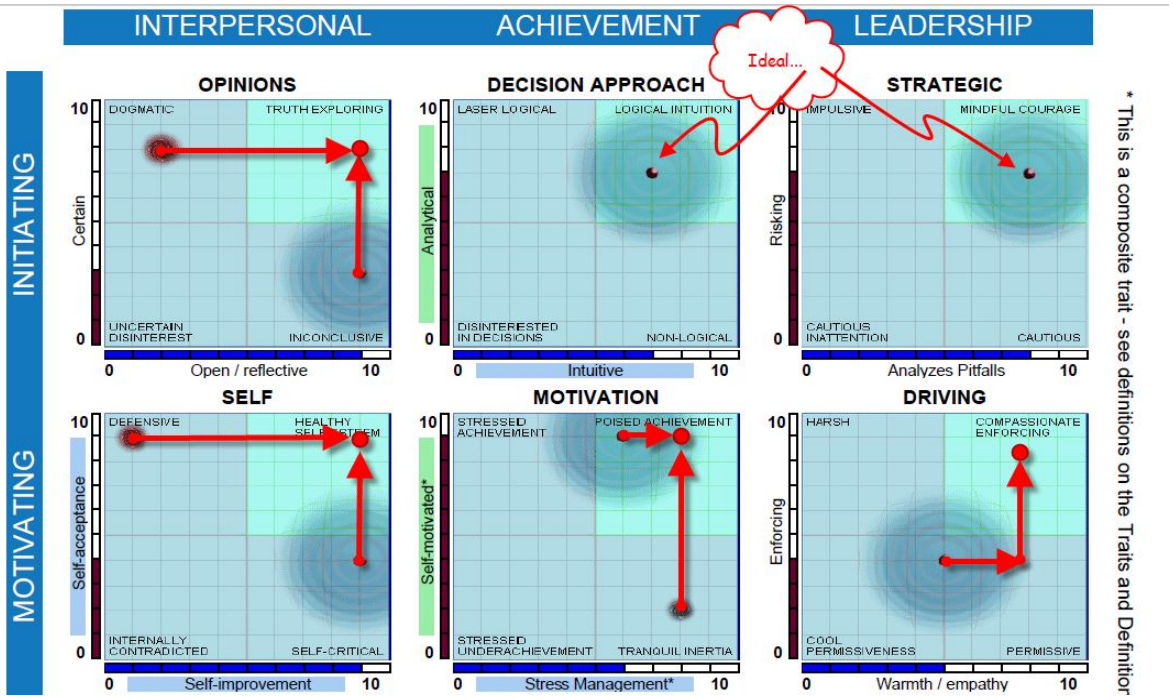

FIGURE 8 Showing interventions which could be considered by this individual[15]

Using several selected examples, we can see that while overall, this individual scored very well against the project manager profile, with a score of 96, and even scored in or close to the Balanced Versatility quadrant in many of the 12 paradoxes, we can see for example that under his Opinions, at the intersection of INITIATING and INTERPERSONAL, if he were to learn to become more assertive in expressing his opinions, becoming more confident without diminishing his openness or reflectivity, he could move from being in the Passive Imbalance quadrant (lower right) to the Balanced Versatility quadrant. The same holds true for his Self Image, located at the intersection of INITIATING and INTERPERSONAL and his Motivation, located at the intersection of ACHIEVMENT and MOTIVATING. At the intersection of LEADERSHIP and MOTIVATION, we find one of the few examples where he is weak in BOTH the Dynamic and Gentle traits. He is not as strong at enforcing as he could be, but at the same time, he does not have sufficient warmth and empathy for others necessary to move him from being borderline Balanced Deficiency into the Balanced Versatility quadrant. So in this example, he

[15] See Appendix 1 Harrison Assessment Report of "Peter Sample", page 8 of 22

would have to work on becoming more strict in enforcing the use of the tools and techniques or the procedures associated with project management, while at the same time, demonstrating more empathy for those on his project team.

As can be appreciated from looking at Figures 7 and 8, "training" someone to become more willing to take risks or becoming more confident in their opinions warmer or more empathetic or more strict about enforcement is not something that can be achieved by taking a 3 day course. It can only happen over time, which is one argument that while there are unquestionably "natural" project managers, most of us have taken years to develop not only the skills necessary, but the confidence in which tools/techniques to use under which circumstances- competencies which can only come with time and experience. However, once a practitioner knows and understands these weaknesses not only can they work on improving them over a period of time, but taking the same assessment several times over an extended period, it is possible to measure improvements in behavioral changes.

CONCLUSIONS

This initial research has been validated under less than perfect conditions from an academic perspective, providing anecdotal, but no empirical evidence that:

1) Those individuals who score high (=>80%) on the HA instrument against the Project Manager Profile tend to perform better than those who don't, under classroom (simulated) project conditions, and;
2) Those individuals who score lower (<80%) on the HA instrument against the Project Manager Profile tend to perform less well than those who score =>80% under classroom (simulated) project conditions.

Further research is necessary to see if:

1) The observations made during the classroom performance hold true outside of the simulated project environment
2) If those who score high in the DESIRIABLE traits but low in the ESSENTIAL traits and neutral in the NEGATIVE traits were average project managers, and;
3) If those who scored high in the NEGATIVE traits consistently made poor project managers.

Explained another way, while it appears as though individuals who score no reds in a combination of the ESSENTIAL, DESRIABLE and NEGATIVE traits do appear to be "natural" project managers, how well or how poorly to those who score in the red, on any or all of the Essential, Desirable or Negative traits perform as project managers?

NEXT STEP - HOW CAN YOU TAKE THE HA ASSESSMENT

As an academic/practitioner, I collaborate with the Harrison Assessment Team through a single point of contact:

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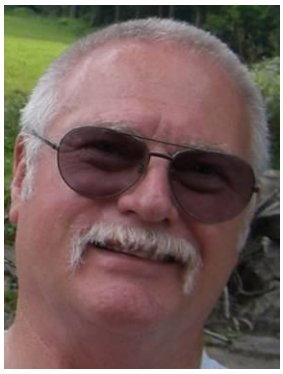
While I have no financial interest in Harrison Assessment nor do I benefit financially from those who take the HA against the Project Manager Profile, we are inviting companies to expand our research data base of Project managers so that we can validate and adjust all the traits to differentiate between successful and average Project Manager. My only involvement with Harrison Assessments is that we share the data for the purposes of research, and all data used for evaluation and research is done in aggregate.

About the Author



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