

DECISION FREE SOLUTIONS

MAKING EXPERTISE MATTER.



ARTICLE

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AUTHOR
Jorn Verweij

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THE FIVE PRINCIPLES OF TONNNO THAT WILL AVOID DECISION MAKING

- Transparency, Objectivity,
No Details, No Requirements,
No Relationships

DECISION FREE SOLUTIONS
KVK 65762355
INFO@DECISIONFREESOLUTIONS.COM

The five principles of TONNNO that will avoid Decision Making

— *Transparency, Objectivity, No details, No requirements, No relationships*

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Note to the reader: This article is a chapter of the manuscript with the work title “Achieve aims with minimal resources by avoiding decision making — in Organisations, (Project) Management, Sales and Procurement (Everybody can manage risk, only few can minimise it)”. The article refers to other chapters, but can be read on its own. Other chapters available on the [website](#) are “[On decision making](#)”, “[On experts and expert organisations](#)”, “[How to predict future behaviour of individuals and organisations](#)” and “[The four steps of DICE that will change the world](#)”.

A general introduction to the approach of Decision Free Solutions can be found [here](#).

How do an expert and a non-expert communicate?

When two experts in the same field meet, you may find that when the one is talking, the other is both listening and thinking. You may also find that they end up talking about details with great enthusiasm, as there is where they find the devil that is causing so much excitement.

When experts think about things in the domain of their expertise they combine existing knowledge and concepts they are experts in. This way they may generate new insight and solutions. When they talk between themselves about details, they may be arriving at the root cause of why they interpret something differently. Between experts “thinking” and “use of details” serve a purpose. They don’t, however, when an expert is communicating with someone who isn’t an expert in the same field.

When the expert is making an “expert-in-something-else” (from here on referred to as “non-expert”) think, it means whatever the expert is saying isn’t transparent. And as the non-expert is an expert in something else, the thinking will not help him to suddenly “get it”. The best that can happen is that the non-expert asks the expert a question. Whenever the expert sees the other starting to think, he is to make his explanation simpler, more transparent, avoiding details.

Experts talking among themselves is the exception. The everyday situation is that the expert in one thing is to communicate with the expert in some other thing. Be it between colleagues, departments or organisations. If this communication is not successful, then how is the non-expert to know he is talking to an expert? How does the vendor make clear to the buyer that he has the expertise and the solution the buyer is in need of? How can the board member be certain that the proposal of the project leader is to be approved?

To avoid decisions in the communication between an expert and a non-expert, certain principles are to be observed. These principles are Transparency, Objectivity, No details, No requirements, No relationship. They are collectively labelled as ‘TONNNO’.

In the communication between an expert and a non-expert details are to be avoided. To resolve issues between experts details not only matter, they are essential. One major challenge that surfaced in a later stage of the Apollo Program was how to structure the communication, the operation and the displaying of the hundreds of switches that could be thrown, dials that could be turned, and the data that could be computed. A new position with the title “Chief of Apollo Data Priority Coordination” was created with a very lengthy and technical job description which came down to “figure out how to fly the missions”. One challenge was the very limited computer capacity available at the time. The onboard computers in the command and lunar modules had less capacity than a modern pocket calculator. Competition for computer capacity was fierce. Bill Tindall’s solution was holding what were known as “Black Friday” meetings. All the people competing for computer capabilities would crowd into the conference room and explain in fervent detail just why their particular needs were crucial to the success of the mission and the safety of the astronauts. Then they had to pretty much fight it out among themselves. The method to the madness (a method copied by others in the Apollo Program) was that what mattered most to the experts was not to get their way, but to have a chance to make their case.

All ideas would be treated seriously. Experts walked into these meetings “polarised and cultures apart”, but Tindall’s method built them into teams. As far as Tindall was concerned the real secret to the meetings was that people weren’t making recommendations to forward to higher management, but that substantiated choices were made then and there, and that you’d better be there too. *Source: [2]*

The principle of the TONNNO principles

To minimise risk in achieving a desired outcome you need the right experts maximally utilising their expertise. To achieve this it must be assured that:

1. The right expert is identified
2. The identified expert can maximally utilise his/her expertise

Both instances concern the communication between so-called non-experts (those who are in need of help in achieving their desired outcome) and experts (who are to contribute to achieving the desired outcome).

The decision avoiding principles are the principles to be observed so that 1 and 2 are achieved. The five principles of TONNNO are thus to be seen in this light, and the logic for each principle is also directly connected to assuring 1 and 2.

Overview of the TONNNO principles

Principle	Brief explanation
Transparency	Whatever is communicated is to be transparent. It is to be understood in the same way by everyone taking part in the communication. That what is communicated is to be obvious, easy to understand, non-ambiguous and absent of jargon. Simplicity is key. This is most readily achieved through the use of metrics, the language of transparency.
Objectivity	Whatever is communicated is to be objective. It should be clear when it is achieved. It should be measurable. The use of metrics results in objectivity.
No details	The communication is to avoid details. Details result in complexity instead of simplicity.
No requirements	Requirements, in the sense of imposed demands and obligations as defined by the non-expert, restrict the use of expertise.
No relationship	Relationships — be it existing connections between two parties who had previous dealings with each other, or e.g. established referral or scheduling systems — bypass the identification of the expert.

Transparency

Transparency is to do away with assuming and thinking

What is transparent to one may still be confusing to another. Transparency may be said to be achieved when the one who is providing transparency (the expert) is able to communicate in such a way that nobody has to think, and nobody has to make assumptions.

Transparency with respect to a certain topic can only be created by an expert in this topic. For example, it is the obligation of the one who wants to achieve a desired outcome to provide transparency with respect to the various aspects of this desired outcome. Likewise, it is the obligation of the one who will contribute to achieve this desired outcome to provide transparency as to how this will be achieved.

As long as someone is still thinking or has to make assumptions the communication is still too complex. The communication is to be so simple that nobody is thinking anymore.

Experts can create transparency by making things simple to understand. Providing simple solutions to complex problems is also a sign of expertise. Simple solutions are less likely to fail than complex ones, and will thus minimise risk. Simple solutions are transparent. In the Apollo Program thousands of specialists worked on complex problems. The almost natural tendency of these specialists was to come up with solutions which were also complex. For Joe Shea this was a clear problem. His doctrine was "keep it simple". By keeping it simple the number of ways things could go wrong was minimised. One such complex problem was how to measure how much fuel is in a tank when in zero gravity. The solution engineers had come up with was the employment of a Geiger-counter arrangement that would register the attenuation of radiation sources being transmitted through the fuel. After several months of development, failing to make the arrangement reliable enough, Joe Shea stepped in and requested the addition of a small reserve fuel tank, just like his Volkswagen had, with enough fuel to get the crew home safely. And when engineers from North American were about to begin developing a new type of heat shield material that would be able to cope with the stresses following exposure to extreme cold caused by being in the sun's shadow for more than ten hours, Joe Shea suggested to rotate the spacecraft, so that the heat shield would always remain warm enough. It came to be known as "passive thermal control", or "the barbecue mode".

Transparency is not objective and has to be actively ensured

Transparency is not objective and can not be presumed. Even in absence of thinking wrong assumptions may still be made. A description of context (event conditions), avoidance of technical terminology and jargon, but especially the use of non-ambiguous metrics contribute to transparent communication. Actively ensuring that transparency has been achieved, however, remains pivotal in avoiding decision making. This is the responsibility of the expert in the topic being communicated.

Metrics is the language of transparency

The use of metrics may transform communication into a simple, non-technical and very efficient language requiring no interpretation and resulting in immediate understanding by all involved. Examples of metrics are “number of times”, “number of defects”, “% of cost deviation”, “customer satisfaction”.

As a note of warning, the identification and the proper use of metrics is not always straightforward. Introducing the use of metrics may even cause resistance, as metrics are bound to replace intuition, hierarchy and reputation. Not everybody will embrace this.

In Michael Lewis' "Moneyball" [4] the central premise is that the collective wisdom of baseball "experts" is subjective, and that the metrics that were collected to evaluate players (e.g. "stolen bases", "batting average") had lost their relevance in the modern game. The Oakland Athletics baseball team, competing against teams able to spend up to three times more on player's salaries, successfully used rigorous statistical analysis to find better metrics to identify players which were undervalued by the market. This approach consequently resulted in the Oakland Athletics achieving the playoffs in both 2002 and 2003. In "The Undoing Project" [5] Michael Lewis writes about how "the enthusiasm for replacing old-school expertise with new-school data analysis was often shallow." The case in point is that of the Boston Red Sox, who aped the Oakland's approach and in 2004 won their first World Series in nearly a century. They won it again in 2007 and 2013. "But in 2016, after three disappointing seasons, they announced that they were moving away from the data-based approach and back to one where they relied upon the judgement of baseball experts. ("We have perhaps overly relied on numbers...", said owner John Henry.)" All of which goes to show that: one, what is to be collected is not merely "metrics", but the metrics which are shown to be relevant to achieving the desired outcome. Two, that relevant metrics are very powerful, but not magical (they may not give a complete picture of reality and or competitors collecting the same metrics may level the playing field again). And, three, that there will always be people who prefer to rely on "experts" and "decision making". Even in the face of compelling evidence that metrics outperform the more than hundred biases that influence the unsubstantiated choices homo sapiens makes.

Objectivity

What is communicated should neither be based on personal judgement nor be open to interpretation. In the context of a goal or target it should be clear when something is e.g. completed or achieved. This is most easily achieved when it is measurable. For example, it may be transparent what is meant with a "sustainable solution", but as a target it is not objective when it remains open to interpretation when this is actually achieved.

No details

Details cause a non-expert to think. Details are of great importance to and between experts, but have no place in the communication between an expert and a non-expert. Experts may make

detailed plans to achieve an aim, but to make their plan transparent they are to avoid the communication of details.

No requirements

The principle of “no requirements” is primarily to prevent the non-expert from restricting the utilisation of the expert’s expertise. In this context a requirement is a condition which must be met which lacks substantiation as to how it will contribute to achieving an aim. A requirement is thus a decision.

The problem with requirements is that, in absence of substantiation, it is often unclear what they are meant to achieve or prevent. They must be achieved, but to what purpose? Many resources can be poured into meeting certain specifications when there may either be an alternative way of achieving the aim or when the aim would also be achieved with specifications requiring fewer resources to achieve.

From 1964 to 1966 about 350'000 contractors worked on the Apollo Program. Specifications, and delays, were everywhere, and it drove Joe Shea crazy. As far as Joe Shea was concerned there was nothing sacred about the specifications. As far as he was concerned there were only three sacred requirements for the entire program: man, moon and decade. “If those are the real three things you’ve got to do, then everything else can be traded off underneath.” And so Joe Shea kept going back to the why of things: Why these numbers and not others on the spec? Was the product good enough to do the job it was supposed to do? Was the job it was supposed to do in the spec the job it would have to do on the flight? The better was the enemy of the good. At times contractors became so obsessed with meeting specifications that common sense got lost in the process. One such example concerns Honeywell, who were delayed in delivering the autopilot for Command Modules 012 (lost during the Apollo 1 disaster) and 014. The reason for this delay was that there were redesigning some connectors and printed circuits to pass the humidity spec. Joe Shea wanted to know how badly it had failed. Turned out that, actually, they hadn’t tested against the humidity spec yet. To make sure it would eventually pass the humidity test they were immersing the connector board in water, and they were having trouble getting it to survive the immersion. *Source: [2]*

No relationship

Relationships automatically establish themselves, and are not “negative” or in any way to be avoided. With “no relationship” is meant that an existing relationship shall not come instead of the process of identifying an expert. If this does happen, then the use of the relationship increases risk.

The term “relationship” is to be understood in a very broad sense. It refers to any *unsubstantiated* means of selecting or appointing someone or something to help achieve a desired outcome. If an organisation is in need of a entirely new solution it may simply choose a vendor it is already doing business with. In doing so it uses the existing relationship and thus takes the risk the vendor is not the expert in providing the new solution.

Other examples of the use of relationships are the random allocation of a project to an “available” project leader, or using a rotation scheme to select team members, or inviting someone to be a part of some panel only because of this person’s position in the hierarchy.

If an existing relationship has been built on delivered performances in the very same field you need expertise in once again, then the relationship has already provided the substantiations. In this particular case the relation is also the expert.

References

- [1] Kashiwagi, D.: Information Measurement Theory with the “Kashiwagi Story”, 2016
- [2] Bly Cox, C., Murray, C.: Apollo, 2004
- [3] Gawanda, A.: The Checklist Manifesto, Metropolitan Books of Henry Holt and Company LLC, 2009
- [4] Lewis, M.: Moneyball, 2003
- [5] Lewis, M.: The Undoing Project, 2017
- [6] Kotter, J.P.: Leading Change, 1996 (first edition)
- [7] Kotter, J.P., Cohen, D.S.: The Heart of Change; Real-life stories of how people change their organisations, 2002 (first edition)
- [8] Kotter, J.P.: 8 steps to accelerate change, 2017 (e-book)
- [9] Pfeffer, J., Sutton, R.I.: Hard facts, dangerous half-truths & total nonsense; Profiting from evidence-based management, 2006
- [10] Bowles, S.: When economic incentives backfire, Harvard Business Review, March 2009, <https://hbr.org/2009/03/when-economic-incentives-backfire>
- [11] Womack, J.P., Jones, D.T.: Lean thinking; Banish waste and create wealth in your corporation, 2003
- [12] Kashiwagi, D.: Best Value Approach 2016, 2016
- [13] Kashiwagi, D.: How to know everything without knowing anything vol 2., 2018
- [14] van de Rijdt, J., Santema, S.: Prestatieinkoop; Met Best Value naar succesvolle projecten, 2013
- [15] van de Rijdt, J., Witteveen, W.: Best Value werkt, 2014
- [16] van de Rijdt, J., Witteveen, W., Santema, S.: Best Value stroomt, 2016
- [17] Kashiwagi, I.: A Global Study on ICT Project Performance, JAPIV, 2018.
- [18] Sharot, T.: The Influential Mind, 2017
- [19] Robertson, B. J.: Holacracy; The revolutionary management system that abolishes hierarchy, 2015
- [20] Hammond, J.S., Keeney, R.L., Raiffa, H.: The hidden traps in decision making, Harvard Business Review (R0601K), 2006 (first published 1998)
- [21] Kahneman, D.: Thinking, fast and slow, 2011
- [22] Kahneman, D., Lovallo, D., Sibony O.: Before you make that big decision..., Harvard Business Review (R1106B), 2011
- [23] Tinsley, C.H., Dillon, R.L., Madsen, P.M.: How to avoid catastrophe, Harvard Business Review (R1104G), 2011
- [24] Charan, R.: Conquering a culture of indecision, Harvard Business Review (R0601J), 2001
- [25] Garvin, D.A., Roberto, M.A.: What you don't know about making decisions, Harvard Business Review (R0108G), 2001
- [26] Rogers, P., Blenko, M.: Who has the D?, Harvard Business Review (R0601D), 2006
- [27] Banaji, M.R., Bazerman, M.H., Chugh, D.: How (un)ethical are you?, Harvard Business Review (R0312D), 2003
- [28] Davenport, T.H.: Make better decisions, Harvard Business Review (R0911L), 2009
- [29] Campbell, A., Whitehead, J., Finkelstein, S.: Why good leaders make bad decisions, Harvard Business Review (R0902D), 2009
- [30] Sinek, S.: Start with why, 2009

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CONTACT INFORMATION



+31 6 538 64545



info@decisionfreesolutions.com



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info@decisionfreesolutions.com
www.decisionfreesolutions.com