

Research findings of dissertation studies are combined with almost 20 years of experience with research and ingraining an effective behaviour culture in organizations. We gained this experience in a variety of sectors, ranging from aviation industry, air and rail traffic control, food, banking, insurance, grid operators, to (sub)acute Medicare. To enrich our insights, we also conducted research in diverse contexts, for example in one of the largest slums in Asia. We were commissioned to do research in the USA, Africa, India, Thailand and Europe. Besides the thousands of hours of interviews related to mapping the unwritten rules and their cause and effect relations, we had thousands of respondents on a variety of questionnaires in a large variety of countries, inside and outside Europe. For the origin of the 6 culture patterns we refer primarily to Karl Weick and Kathleen Suthcliff.

"Johan lets science and practice go hand in hand."*
Prof. Dr. Paul Hendriks, Radboud University, Dean Faculty of
Management Sciences



Dr. Johan Boudewijns author of 'Alice in Organizationland' (bestseller), and 'delta 5: unwritten rules as the key to creating a learning organization and sustainable success', listed for management book of the year in the Netherlands.

Quotes

"Johan presented his initial work on the benefits and risks of unwritten rules at the first world-wide High Reliability Organization (HRO) conference. Now he has published his insights for the identification and use of unwritten rules to create and strengthen a learning culture, driving members to engage the unexpected, generate novel ideas, and innovate effective solutions.

This raises HRO beyond the realm of the unexpected and crises to become a vital component for any organization that wants to adapt and thrive in the face of social change and economic adversity or volatility."

Daved van Stralen, President HRO institute, educator HRO for medical services, National Security and Special forces, U.S.A.

"The energy transition brings with it a lot of uncertainty and many challenges. The behavioural patterns of HROs help us, grid operators, to continue to perform reliably and continue to learn – even under these changing circumstances. This is experienced by our people in the field, but these behavioural patterns also keep us sharp in the board room."

Judith Koole,COO Stedin Groep

'Practical experience requires solid ground. For the director, organiser and consultant, understanding is the core business. Understanding is impossible without sturdy, tested terms, without sturdy, tested theory. In this book, Johan Boudewijns is able to combine science and practice in an appealing way.'

Prof. Dr. Paul Hendriks. Radboud University, dean of the Management Science Fac.

'The approach described in this book is highly effective: in a short period of time, the whole set of unwritten rules had been revised'

Acronius Hettinga, Director Manufacturing FrieslandCampina

"In my board and management functions I have encountered all the forms of make-believe control described by Johan in his book. We have the tendency to navigate on the basis of data that are not very reliable and he makes this clear (sometimes in a painful way for a director) with examples that we can all recognise. Johan shows where the real grip can be found."

Rob Coolen

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Preface

It was a wonderful journey. A lot of journeys to be precise, with clients, colleagues, friends, alone. Somehow, a lot is coming together in this book, as it generated awareness; something that can create or impede our success. I have come to realise that this is typical for successful managers: they organise, focus and integrate awareness so that the best ideas and solutions are created and implemented. But more about that later.

Experiences that were not successful are often still valuable, as they expanded our awareness concerning a situation, the (im)possibility of a solution or ourselves. My growth in awareness also involved experiences that were not successful. I will tell you about a few of these valuable experiences.

Early 2000 I had a lunch appointment with Etienne, the would-be prime minister of Curaçao, on a special location: the only hotel in the world that had an insurance against ships sailing in: Van der Valk in Willemstad. We talked about my vision of change. Leaving the hotel, I realised I was not yet quite ready for such big questions.

Five years before that, I had quite a different feeling, while driving across the Bay bridge in San Francisco. I was studying at UC Berkeley at the time and the world was at my feet. Although something was nagging me: filling my head with knowledge and clever reasonings would not make me the person I wanted to be. I had no idea what my growth needed.

Once I had defended my thesis, I was able to reorientate my head. Each month I used to walk about 200 kilometres in the forest, but it did not help me to ground my thoughts. My books left the house and I allowed in the confusion and paralysis that always occurred during situations

Introduction

The challenge of these times: maintaining grip in a world that is more elusive, unpredictable and demanding than ever. A world in which even key players do not know in which game they have ended up or will end up. For instance, Facebook wanted to contribute to democracy and also did exactly the opposite, Twitter wanted to bring people together, but the distance also seems to grow. Directors must decide about major multi-annual investments, while the world could look differently within a week due to a rumour. Change is of all times, but its speed and volatility are of these times and will only increase.

Assignment to the director: perform reliably in a world in which even key players are being surprised

Nevertheless, customers and civilians are asking to perform reliably: to deliver what you promise. Whether it concerns a consumer product, a service such as electricity, safety or care: this paradoxical tension can be sensed everywhere. We see that directors, managers and employees struggle with this tension and that they are often unable to handle this properly. As a result, the tension is increased and this translates to overstrained people, increased uncontrollability, fewer promises to customers or civilians being fulfilled, being overtaken by innovations. Remaining reliable towards the customer or civilian is a huge challenge in such a volatile environment.

The ability to handle major challenges demands organisational awareness

You are unable to perform reliably if you are not aware of the factors that have an effect on this. Therefore, everything begins with awareness. After that, a policy can be determined, the correct skills can be developed and the correct resources can be purchased, etc. The primary task of directors is therefore to organise this awareness.

For an assignment meeting at AGRA – an organisation with the ambition to get rid of hunger in Africa and funded by the Bill and Melinda Gates foundation – with the then chairman Kofi Annan, we were sent internal policy documents. These showed the influence of Bill Gates: he organised an increase of awareness by systematically searching for determining factors that cause hunger. It showed that small holder farmers produced sufficient food and that the weakest link was in the ability of the infrastructure to get the products to the markets quickly (while still fresh). Better agricultural techniques would not solve this problem; agriculture itself was not the determining factor. Because Gates strongly focused on establishing the determining factors of hunger, a new awareness was created that enabled AGRA to establish an effective policy.

If there is a problem or if something changes in the determining factors, a repertoire of actions has to be available to be able to solve the problem or face the change. This means that an organisation must have awareness both organised and integrated. The board must be able to achieve both.

There are three areas on which awareness should focus:

being in control internally, continuing to provide added value to its stakeholders and being able to innovate—i.e. learn—so that the organisation has a future. These three areas relate to one another like an equilateral triangle; each one needs the other. This involves unavoidable paradoxes. An example of such a paradox is the ability to produce in a controlled way against low costs and be innovative at the same time. Such paradoxes demand an overarching perspective that must be integrated in the organisational awareness. The times when an organisation could only focus on minimum costs or a specific customer demand are in the past. The customer demands custom work against minimum costs.

It appears that reliable organisations have 5 culture patterns in common

Organisations that manage to achieve a reliable performance in a dynamic environment with a lot of risk and impact, appear to have 5 culture patterns in common. A study by Karl Weick and Kathleen Suthcliff shows that the 'hard side' of top performers in industries with a lot of risk, dynamics and impact - you could think of aircraft carriers, oil platforms and operating rooms - does not differ from that of normal performers. Both groups of organisations had similar structures, systems and procedures. The difference could be found in the culture patterns. Moreover, it turned out that these culture patterns apply across various sectors. They started to call these organisations 'HROs': High Reliability Organisations. This book relies heavily on these findings. It is supplemented with insights from dynamics theory and organisational theory and experiences and insights in becoming an HRO. Weick indicated that we in the Netherlands are worldwide leaders when it comes to our approach to change management. I particularly would like to thank Bert Slagmolen; to my best knowledge, he is the one who brought HRO to the Netherlands and he took me with him to the US. Then Bert started applying HRO in organisations with Apollo 13, and in parallel we started doing the same with the Boudewijns Advisory Group. The material is too rich not to share; which is why I wrote this book.

Being reliable in a world of quickly changing changes demands another 6th cultural pattern

HROs are very good at managing the unexpected; preparing themselves for the unknowns. The wind could change direction all of a sudden, as a result of which the progress of a Californian forest fire could change dramatically. We never know what the wind will do; an 'unknown'. But the fact that the wind is a determining factor, is a 'known'. In the current world, however, there are also unknown unknowns, because new worlds are being created.

You could think of the combination of large-scale smartphone ownership, apps that connect demand and supply, and satellite navigation. Within a few years, this will lead to a situation where the market for personal transport has totally changed. Uber was an unknown unknown to which the authorities had to find an answer by means of legislation. The city life of people living in Amsterdam has also changed significantly; Airbnb has increased the inflow of tourists, affected the housing market; changed the composition of residents of Amsterdam and confronted the (city) authorities with various dilemmas. You could say that the sixth cultural pattern provides HRO 2.0; the speed of transactional learning must increase significantly, because the factors of change themselves are also changing.

It is the task of directors to get the 6 culture patterns in the DNA of the organisation

The 6 culture patterns are the best practice of organisations that make up the top of their industry when it comes to sustainable success in major performance areas, combined with a '2.0' learning speed. HRO is often associated with occupational safety, but it also relates to other areas, such as delivery reliability, quality and profit. On the one hand, research has shown that the difference is not caused by a different structure, but by the culture. On the other hand, research has shown that apparently there are culture patterns that are typical for an organisational culture that generally leads to reliable success. Therefore, it is logical for directors to focus primarily on embedding these culture patterns. We want to support this by means of this book. The structure of this book is therefore as follows:

Structure of this book

Part 1

Why directors should focus on ingraining 6 culture patterns in order to perform reliably in our volatile world

Culture patterns organise awareness

Part 2

What is holding us back?

Revealing the current organisational culture and determining the gap with the 6 culture patterns

Part 3

How do we get there?

Delivering the change: ingraining the 6 culture patterns

Part 1

Why directors should focus on ingraining 6 culture patterns in order to perform reliably in our volatile world

Culture patterns organise awareness

We are unable to observe outside our awareness

So that is where we can be surprised. Due to blind spots, we are only able to find less than optimum solutions for our problems. We cannot prepare ourselves for something that we cannot see by developing knowledge, skills and resources. An example: an operator who must keep a machine operational is not aware of the factors that are decisive for this, which leads to a poor operational result. Or, a marketeer is not aware of a growing group in society with a major hidden demand. What if the competitor is aware of this demand and responds to it. In both examples, blind spots could lead to poor results. In both examples you want to see a greater awareness.

In my opinion, therefore, directors - and all members of the organisation in fact - should focus on organising awareness. For this they should have three areas in their field of attention: being in control internally, providing added value (externally) and ensuring the organisation is ready for the future (continued learning). These three areas also apply on an individual level: knowing what you are doing, providing added value to your surroundings and continuing to learn.

Reliable performance in a changeable world therefore demands a high awareness within the organisation. It does not only concern internal controllability (being in control internally), because reliability also relates to delivery of the performance for a long period of time. Continuing to learn is therefore also a precondition for reliable performance. The 'performance' of the organisation revolves around the delivery of added value. The director must therefore focus awareness on all three areas to be able to perform reliably in a world that is not predictable. Not so easy, because as Rumsfeld said when he was still the US Secretary of Defence:

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we have to prepare for the unknown: the known unknowns and the unknown unknowns.

Awareness must be organised, because only awareness can lead to the ability to deal with our changeable world in an adequate way. Organising awareness relates to:

A. Enlarging the field of attention and B. Focusing attention.

In the case of A, it concerns the cultivation of a world view and a way of looking at your own work that is sufficiently rich to give useful meaning to the organisation and your own activities within it. In addition, it concerns providing antennas that receive internal and external signals and are able to explain them.

In the case of B, focusing attention, it concerns a mutual vision on what is important and what everyone has to do. What do these signals and developments mean for us? For example, what is Artificial Intelligence going to mean for our sector and for us? What does it mean for our investment choices? For our HR policy?

Next, awareness must be integrated

Only being aware of risks and opportunities does not yet lead to controllability, particularly in a mostly volatile world. The organisation should also have answers to this. For that purpose, we make a distinction between *organising* awareness and *integrating* awareness.

Same as for individual persons, the triangle of ratio, heart and body also applies to organisations. The ratio is about 'seeing it in front of you' and mentally 'understanding' it. Heart awareness is about empathy,

experiencing collectivity, experiencing passion and having a moral compass. Particularly these characteristics are the result of evolution and made sure that we were able to build societies. Without heart, employees do not follow or 'only half follow', employees do not have empathy for the customer, or an organisation is rejected by society due to a lack of moral compass.

Finally we have bodily awareness. You can understand something like 'feeling for the ball', but that does not mean that you posses it. Experience and aptitude are necessary to have a certain 'ability'. Organisations must also organise this 'tacit knowledge', particularly because easy to learn matters will never lead to competitive advantage. Tacit knowledge is the knowledge that enables a bird to fly and us to cycle. This type of knowledge cannot be transferred through documents or instruction. Let be the knowledge gained by an operator who, over a period of 20 years, developed unconscious action patterns for complex situations that only occur once in a while.

Culture patterns determine awareness

Behaviour of dominant occurrence, i.e. used by most people in most cases, is referred to as culture. Concretely, this can be described by means of the *unwritten rules* within the organisation. The do's and don'ts, 'this is how we do things here'. Unwritten rules always have effect, the same way as behaviour always has effect. They also have effect on the organisation and integration of awareness. Unwritten rules that keep the field of attention healthy; allowing a free flow of knowledge and ideas and avoiding representations of the world and the work that are incorrect or too simple. Because employees share meanings of their own work situations, situations with customers, observations in the vicinity, etc., a world view can be created that helps employees to handle what they are confronted with efficiently.

If the culture is dominated by unwritten rules such as 'you can say one thing, and do something else', 'start new things, no need to finish it', 'you establish your own priorities', this is proof that the organisation is unable to focus its attention. Often you can see that the written rules in these organisations, such as descriptions of tasks, responsibilities and competences, are also not defined properly.

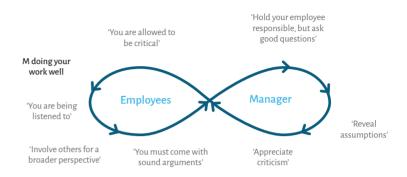
If the culture is characterised by unwritten rules such as 'only bring positive news' 'do not give feedback to one another', 'emotion is something for outside your work', 'you are not allowed to make mistakes', the integration of awareness is obstructed. The person who made the mistake probably learned something, but will keep this entire process to himself because 'you are not allowed to make mistakes'. In this way, the knowledge gained is not integrated in the organisation. Organisations do not improve and in the end get out of control and the delivery of added value to the customer can come under pressure. In isotopes like these, people tend to choose 'the easy way', and therefore only repeat what they know. Signals that demand innovation to be ready for the future are not 'received', but are ignored or not even noticed.

Cultural pattern: unwritten rules in behavioural dynamics

Unwritten rules exist in behavioural dynamics: a system of actions and reactions. This is what we call a cultural pattern. Below you will find an example using the terms cultural pattern, behavioural dynamics, unwritten rules and effects. The unwritten rules are written in italics, the lemniscate represents behavioural dynamics, 'reluctance to simplify' is the cultural pattern here.

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Cultural pattern: reluctance to simplify Example of underlying behavioural dynamics with unwritten rules:



Under the cultural pattern 'reluctance to simplify' different unwritten rules and different dynamics can exist that lead to simple or - contrarily - realistic and rich conclusions. The example above describes dynamics between manager and employees, regulated by unwritten rules. In this case, the unwritten rules ensure high and increasing awareness. As a result, the probability of good decisions, amongst other things, will increase. The probability that this organisation performs reliably is therefore greater than when there are unwritten rules such as 'an agreement is not an agreement', 'criticism is not appreciated', etc.

HROs have culture patterns that organise and integrate awareness effectively

Researchers discovered that people on the West Coast of the US had completely different ideas about keeping nuclear plants safe than people on the East Coast. On the East Coast they based themselves on the implicit assumption that the world is predictable. The same way of thinking we can also find in classical ideas about safety amongst en-

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gineers and IT specialists. This does not only relate to the assumption that things can be designed and built in such a way that nothing can go wrong, but also that the people who will work with them will act exactly as the builders anticipated.

On the West Coast the assumption was that things very often turn out differently than expected. Achieving reliability is realized by learning to deal with that. By treating variations not as interference, but as the normal situation, the variations are considered information that can be used to understand what is going on in the system. Through an increasingly growing understanding of the system on the one hand, and great focus on variations that are a (weak) signal for possible failure on the other hand, it is possible to interfere before instability and possible failure occur.

West Coast	East Coast
Things always turn out different- ly than you think	The world is predictable
Variations are normal	 Failures are deviations from the normal performances
Accidents occur due to depen- dencies in a complex system	Accidents are the result of a linear sequence of cause and effect
Prevention through observation	Barriers are essential to avoid accidents
Improvisation is essential for safety	Improvisation is dangerous
Expertise is local and well	Focus on expert planning of safety

West Coast and East Coast: other unwritten rules of the game Both worlds lead to completely different unwritten rules of the game. If 'the world is predictable' is the world view, managers tend to interpret each unexpected event or twist as "I am not in control, I am not doing it right". This is not something they 'want to scream from the rooftops'. As a result, higher management echelons start to miss important management information; they do not get to know the deviations from the plans and time schedules. Until the moment comes when the direct reports cannot ignore the facts, because the damage becomes visible.

In that case, organisations end up in a reactive mode, members of the organisation lose trust in the management due to poor decisions, the lack of control. The organisation becomes more and more ineffective because eighty percent of the (management) agendas (!) consists of repair actions. This became clear from the answer that many managers gave when we asked for an estimation. All that time, the manager (or other employee) is ineffective in a sense, does not provide added value.

The paradox here is that by assuming predictability in the control, the organisation gets out of control, resulting in a situation where the added value to the customer in relation to quality or costs gets under pressure. Let be that in such situations organisations get the time to think about their future.

We can see a similar problem when we look at the East Coast assumption that accidents result from a linear sequence of cause and effect. On top of this, research within organisations with the East Coast assumption is done by experts from staff departments, as a result of which lessons are only learned there, within the frameworks of the experts; nobody is able to think outside their own boxes. The explanation and therefore the solution is devised within the framework of the staffer who presents it to the operator. Both worlds run the risk of drifting