

How groups make risky decisions

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Decisions are risky and important

Every one of us has to make decisions all the time, in both our personal and professional lives. Some of these decisions are easy and can safely be made intuitively, while others are more difficult and require more active and detailed consideration. All decisions share two important characteristics:

1. They involve *uncertainty* – if there is only one option to consider or if the outcome is certain, then no decision is required.
2. They *matter* – if the results are unable to affect any goal or objective or have no significant or measurable effect, then no decision is required.

Saying that all decisions are uncertain and matter has echoes of another discipline, namely risk management, since a common proto-definition of risk is “*uncertainty that matters*” (Hillson, 2009). These two dimensions of risk are expressed more fully in formal definitions of risk, for example “A project risk is an uncertain event or condition that, if it occurs, has a positive or negative effect on a project’s objectives” (Project Management Institute, 2008). This suggests that the techniques and insights from risk management might usefully be applied to decision-making, especially for decisions which are particularly uncertain or where the outcome matters significantly.

One area where the two disciplines of risk management and decision-making overlap is in the importance of the human element. There is wide consensus that risk cannot be managed effectively merely by relying on processes, tools or techniques. *All risk is managed by people*, and the influence of human behavioural aspects on the risk process must be both understood and managed if risk management is to achieve its aims. Similarly, decision-making is aided by formal processes but ultimately *all decisions are made by people*. For both risk management and decision-making, the problem becomes more complex when groups are involved, since a group is more than the sum of its constituent individuals. There are multiple influences at work in the way groups function, and these are exacerbated when what the group is doing is both uncertain and matters.

A useful way to explore the link between the worlds of risk management and decision-making is through the lens of *risk attitudes*. These offer valuable insights into the human aspects of risk management which can be applied to the decision-making process. In order to manage these interactions in a way that leads to better decisions (both in terms of a good decision process and the best possible decision outcome), we first need to be able to understand both risk attitudes and the ways that groups operate.

Understanding risk attitudes

A lot of the literature on risk attitude is somewhat theoretical and difficult to apply to real-life situations, either in personal life or in business. This is largely because the theories have been developed by academics working in artificial environments. Recently work has been undertaken to apply the accepted theories of risk psychology in a more practical way (summarised in Hillson & Murray-Webster, 2007). It is not possible here to review the existing literature in detail. However a basic understanding of the term “*risk attitude*” can be derived from its two component words (Hillson & Murray-Webster, 2006a):

- *Attitude* is a chosen response to a particular given situation or set of circumstances, and depends on the perception of the situation. Attitude can be habituated such that an individual or group always responds initially in the same way, but ultimately attitude is a choice and can therefore be modified.
- *Risk* can be defined briefly as uncertainty that matters, as discussed above. The way risk is viewed by individuals and groups is also driven by their perception of how uncertain a particular situation may be and how much it matters.

Combining these two words into the term “risk attitude” and recognising the important influence of perception on both components allows a working definition to be produced, as follows:

- *Risk attitude is the chosen response to uncertainty that matters, influenced by perception.*

It is also important to see that risk attitudes exist on many levels, since they are not just shown by individuals but are also exhibited by groups of various sorts, including families, work groups, project teams, local communities, clubs, society and even at national level. Many shades or degrees of risk attitudes are also possible, although the tendency to use shorthand terms such as risk-seeking, risk-tolerant, risk-neutral or risk-averse tends to imply just a small number of distinct risk attitudes. In reality risk attitude exists on a continuous spectrum, as shown in Exhibit 1.

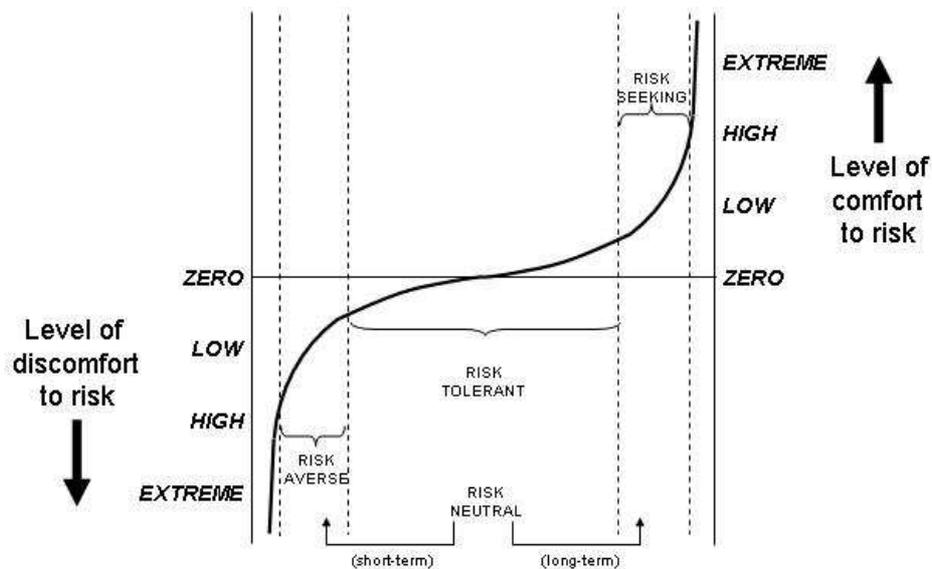


Exhibit 1: The risk attitude spectrum (from Murray-Webster & Hillson, 2008)

The position of an individual or group on this spectrum is driven by perception, as discussed above. Perception in turn is influenced by a wide range of factors, characterised as the “triple strand” (Hillson & Murray-Webster, 2007):

- **Strand 1 – Conscious factors:** These are the visible and measurable characteristics of a particular risky situation, based on our rational assessment. We also take account of situational factors such as whether we have done anything similar before (familiarity), the degree to which we have control of the situation (manageability), or how soon the situation is expected to affect us (proximity).
- **Strand 2 – Subconscious factors:** These include heuristics and other sources of cognitive bias. Heuristics are mental short-cuts based on our previous experience. Some heuristics help us to reach an appropriate position quickly, while others can be misleading. Unfortunately because heuristics are subconscious, their influence is often hidden, and they can be a significant source of bias. Common heuristics include memory of significant events (availability), or the conviction that we already know the right answer (confirmation trap).
- **Strand 3 – Affective factors:** These are gut-level visceral feelings and emotions which tend to rise up automatically or instinctively in a situation and influence how we react. Fear, excitement or attraction can lead us to adopt risk attitudes which a more rational assessment might not consider.

The triple strand of influences interact together to affect perception in two important ways: how people perceive a particular risky situation, and what they perceive as the right way to respond to it. By appreciating how the triple strand factors drive perception of risky situations, it is possible to better understand why individuals and groups adopt different risk attitudes.

Understanding group behaviour

Like risk attitudes, there is a large body of knowledge on group behaviour which we cannot review in detail here. However in order to support improved decision-making, it is necessary to understand the main factors that influence how groups behave, especially when they are working together to make a decision in a situation which is recognised as both risky and important. Recent research (Murray-Webster & Hillson, 2008) has investigated a range of possible factors and tested the hypothesis that “*the strength of influence of each factor on the decision-making group is directly proportional to the propinquity of the decision outcome to each factor*”. In other words, the closer a factor is to the centre of the decision, the stronger will be the influence of that factor on the decision-making process and outcome. The factors initially considered in the research were:

1. the individuals in the decision-making group
2. the decision-making group as a whole
3. the organisation within which the group operates
4. wider society
5. the national/international context

Propinquity can be defined as “nearness in relationship” (Murray-Webster & Hillson, 2008), and represents the degree to which something matters personally to an individual or a group. The factors presented above are listed in decreasing order of propinquity, since individuals would be expected to care most about the decision process and outcome, followed by the decision-making group, then the organisation, and finally wider society and the national/international context.

A two-phase research study was undertaken, the first of which used a rich interpretative analysis of eight real-world decisions to identify the factors to be considered, and to give an initial indication of the relative strength of each factor in influencing the decision process and outcome. The results were also used to refine the hypothesis prior to the next phase. Refinements included dividing the “individuals” factor into sub-factors based on power and propinquity, and introducing a distinct “decision context” factor separate from the overall organisational culture. The second phase of research used a web-based survey to validate initial findings (n=281). The research method and results are described in full by Murray-Webster & Hillson (2008).

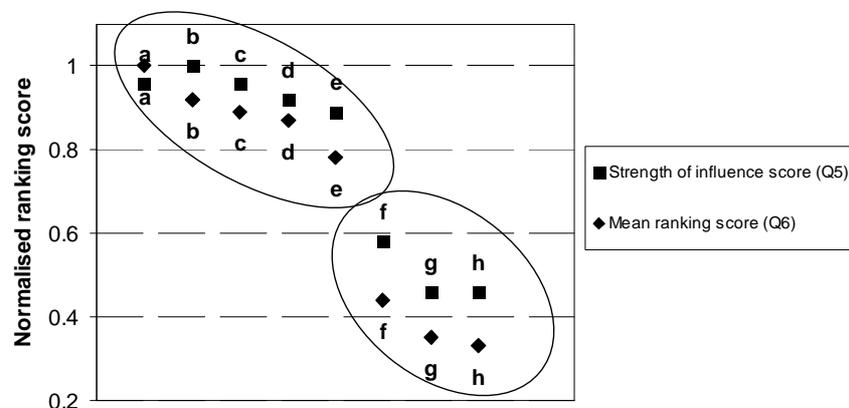


Exhibit 2: Ranking the influence of factors on decision process and outcome

Using two separate measures, the research indicated two distinct groups of influences. These are shown in Exhibit 2 normalised to a scale of 0-1. The first group with stronger influences were designated “primary factors” and comprised the following (using the letters from Exhibit 2):

- a. individuals with high power
- b. individuals with high propinquity
- c. organisational culture
- d. decision context
- e. group dynamics

These primary factors can be grouped into “stakeholder influences” (factors a and b), “situational influences” (c and d), and group dynamics (e).

The factors with less influence on decision process and outcome (“secondary factors”) were:

- f. individuals with low power
- g. societal norms
- h. national culture

Detailed analysis of the primary factors in the eight analysed decisions indicated that the strongest influence in every case was either stakeholders or the situation, such that these formed two co-equal “lead influences”, with group dynamics acting as a bridge between the two, as illustrated in Exhibit 3. The implication of this finding for the behaviour of decision-making groups is that group behaviour is mainly influenced by:

- o *either* one or more strong individual leaders who are able to supersede situational factors if they wish, with the group dynamics operating in support of the leader(s);
- o *or* strong situational factors deriving from the context of the decision and the organisational norms, within which influential individuals have to adapt and fit, with group dynamics operating in line with the prevailing context and culture.

In both of these cases the secondary factors exert a lower-level weaker influence, which should not be forgotten even though it is less significant than the effect of the primary factors.

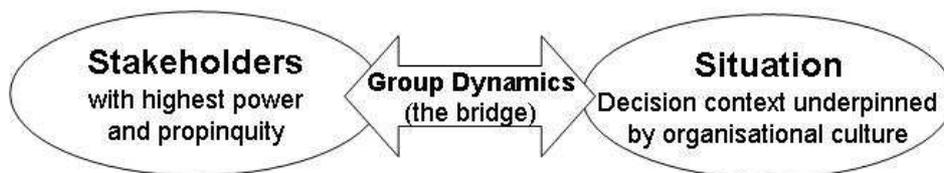


Exhibit 3: Relationship between primary factors

Bringing it together

When groups make decisions which are seen as being both risky and important, they are subject to a wide range of influences. The research summarised above suggests that those factors which exert the strongest influence are powerful individuals, the situation and group dynamics. Within this framework, risk attitudes affect how both individuals and groups will respond to the perceived uncertainty and importance of the decision. The risk attitudes of the powerful individuals and the group as a whole are in turn affected by the “triple strand” of conscious, subconscious and affective factors.

It is not surprising that this situation is rather complex, since if group decision-making were simple and straightforward we would all experience perfect decisions every time – which we don’t! At this point some may be tempted to despair that good decision-making is even possible. Fortunately there is a solution which enables risk attitudes to be addressed consciously, allowing their effect on decision-making to be managed in a way that encourages optimal decision processes and outcomes.

The key to managing this situation is to recall that risk attitudes, like all attitudes, are *chosen*. This means that where an individual or group becomes aware of the effect their risk attitude is having on their behaviour, it should be possible for them to choose a different risk attitude where that is appropriate. Of course in some cases the unmanaged risk attitude may be perfectly suitable to support the group in making a good decision. In other cases it may be necessary to intervene in order to modify the existing risk attitude of one or more individuals or of the group as whole, with the aim of promoting a more optimal decision process and outcome. The important thing is to know when to intervene and when to allow the current situation to continue.

A simple framework has been developed to facilitate this proactive management of risk attitude (Murray-Webster & Hillson, 2008), drawing on the insights and techniques of emotional literacy (Salovey & Mayer, 1990; Goleman, 1995, 1998; Mayer & Geher, 1996; Weisinger, 2000; Cherniss & Goleman, 2001; Higgs & Dulewicz, 2002; Hillson & Murray-Webster, 2006b). This framework is called the Six A’s Model, with the following elements (illustrated in Exhibit 4):

1. Awareness – know what is going on
2. Appreciation – understand why it is happening
3. Assessment – determine whether this is appropriate
4. Assertion – communicate the need for change
5. Action – make the necessary change
6. Acceptance – take no proactive action

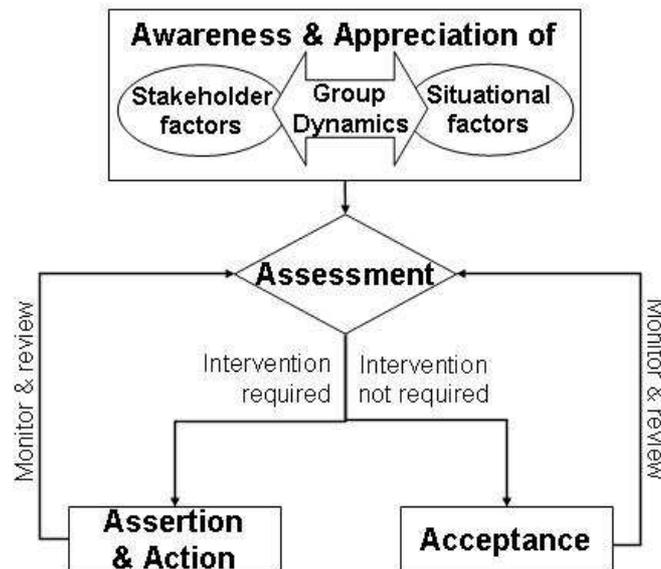


Exhibit 4: The Six A's Model (from Murray-Webster & Hillson, 2008)

Applying the Six A's Model to a group decision-making situation starts with Awareness and Appreciation, looking at the key influences on the decision-making process and outcome (particularly the primary factors relating to powerful stakeholders, situational factors and group dynamics, though secondary factors such as societal and national cultural differences should not be ignored). Next comes Assessment, to determine whether unmanaged group risk attitude is likely to lead to an acceptable outcome or not. Where the Assessment step indicates that intervention is required to modify the prevailing risk attitude of the group, Assertion and Action are needed to make the necessary change, and this should be monitored and reviewed to ensure that it is having the intended effect. If on the other hand Assessment shows that the existing group risk attitude is unlikely to have a detrimental effect, the current risk attitude can be Accepted (although it must be monitored and reassessed periodically, which may lead to Assertion and Action at a later time).

A number of practical steps can be taken to develop the required levels of individual and group awareness and appreciation, using the recognised techniques of emotional literacy. The innovation of the Six A's model is to provide a simple framework for applying these techniques to a group decision-making situation in a way that promotes a good decision process and an optimal decision outcome.

Conclusion

This paper has outlined the importance of understanding and managing risk attitudes in both individuals and groups as part of a structured approach to managing risk. The role of perception has been highlighted, together with the triple strand of conscious, subconscious and affective factors in influencing perception of risk. Research results have also been presented which explore the range of influences on group behaviour in a situation where a risky and important decision has to be made, and a set of primary factors have been identified including powerful stakeholders, situational issues and group dynamics. The risk attitudes of individuals and groups affect all of these primary factors, and if these are left unmanaged decision-making would become unpredictable and suboptimal.

Group decision-making is a complex undertaking and it is subject to a complex web of interacting influences. The Six A's Model described here offers a framework for understanding and managing what is going on when groups make risky and important decisions, and applying this framework will lead to better decision processes and optimal decision outcomes.

Acknowledgement

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