

**Paradigms and Mindfulness in Decision Making: Why the Israel
Defense Force (I.D.F.) failed in the Second Lebanon War.**

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Abstract

This paper argues that the Israel Defense Force (I.D.F.) failure in the second Lebanon War can be partly attributed to commanders' mindless and insufficiently critical decision making at the individual, group and organizational levels, or equivalently, at the platoon/tactical, division/operational and GHQ/strategic levels. Four cases are analyzed. The first three cases confirm the proposition during planning and opening stages of the war. The fourth confirms it during the war's operational phase. The analyses demonstrate an inclusive psychological conceptualization of decision making that complements the calculative conceptualization that underlies current decision research. The descriptive and prescriptive implications of the findings from the second Lebanon War are generalizable to decision making in other domains.

Paradigms and Mindfulness in Decision Making: Why the Israel Defense Force (I.D.F.) failed in the Second Lebanon War.

This paper presents some ideas on decision making developed during my 37 years of studying, researching, and consulting on this subject. Following their presentation, I will demonstrate these ideas in four short case studies of decision making in the real world. As I am not a historian or a political scientist but a student of decision making, please remember that my subject is not military tactics or current history, but decision theory and the study of decision making. The stories, therefore, are subsidiary to the theory. They are designed to provide it with color and demonstrate its relevance to real world decision making. Alternatively, the theory provides the conceptual tools with which to make sense of the stories. In the Discussion I will argue that the lessons that can be learned from the decision processes of commanders in the I.D.F. during the second Lebanon War can be generalized to decision making in general, and decision making in business in particular.

I. Paradigms and decision making

A decision can be defined as committing oneself to a certain opinion, course of action, or whatever other subject about which the decision maker is concerned (Lipshitz, 1994, Yates, 2001). This, naturally, raises the question how do decision makers develop their commitment?

Traditionally decision makers are presumed to develop commitment by selecting the best option from an available set of alternatives. Indeed, that is how decisions are often defined. This answer, which conceptualizes decision making as **concurrent choice** begs another question: where did the alternatives come from in the first place?

On some occasions, such as when we walk into a supermarket, the alternatives (arguably too many of them) are presented to us. On other occasions they have to be found, designed, or invented. The model of concurrent, or, Rational Choice is moot on the subject of alternative generation, (and thus, strictly speaking inapplicable in the latter occasions). The Rational Problem Solving Phase Model, however, which subsumes Choice as one of its phases, does offer an answer: Having identified (phase 1), defined (phase 2), and diagnosed (phase 3) their problems, decision makers generate alternative solutions (phase 4), compare their relative merits (phase 5) and choose the best alternative available to them (phase 6, or the decision phase). Implementation, and hence commitment, is tacitly presumed to follow automatically and un-problematically. As Rational Actors, decision makers are apparently compelled by the neat logic of the linear progression from problem identification to solution selection. The apparently compelling logic of the problem solving phase model has proved very useful for training and teaching (Bransford, & Stein, 1984; Kepner & Tregoe, 1997). Empirical tests of its descriptive validity showed, however, that it was rarely employed, and when employed, rarely faithfully followed (Lipshitz & Bar Ilan, 1996). Decision makers apparently found it either impractical or unreasonably pedantic given the alternative -- relying on their unaided wits and skills. Whether this conclusion is sound for decision makers with sufficient relevant expertise, or a manifestation of Pollyanna and hubris, is hotly debated. Researchers working within the JDM/BDT framework take the latter position; those working within the NDM framework prefer the former. Either way, the original puzzle remains: How do decision makers commit themselves and where do alternatives come from? In other words, How are real world decisions actually made?

The preceding argument – indeed the entire paper -- can be framed as unpacking the definition of decisions as committing to a certain course of action. The argument, up to this point, can be summarized as follows: The definition raises the question "how do decision makers develop commitment?" The traditional answer: "By choosing the best alternative", leads to the question: "Where do the alternatives come from?" The Rational Choice model is moot on this question, and the answer of the overarching Problem Solving Phase lacks descriptive validity. This loops the argument back to the question: How do decision makers commit themselves to a certain course of action?

The little exercise above yields two conclusions:

1. Conceptualizing decision making in terms of choice and commitment may be incompatible: Whereas the former is frozen in time (or synchronic), the latter is extended in time (i.e., diachronic). This theme is discussed extensively in comparisons between JDM/BDT on the one hand, and NDM and action and sensemaking, on the other hand (Lipshitz, Klein, Orasanu, & Salas, 2001; Laroche, 1995; respectively).
2. Granting point 1, and assuming a significant proportion of real world decisions that are best described as committing to a certain course of action, a valid descriptive and effective prescriptive decision making require to complement the conceptualization of decision making as concurrent choice among alternatives with additional conceptualizations. Two alternatives, with very different answers to the question of how decision makers develop their commitment, are available in the extant literature. The nature of these answers and their profound differences from choice, as well as from one another, is the subject of the next section.

The three fundamental modes of decision making

Careful analysis of real world decision making case reports reveals the existence of three fundamentally different generic **modes: consequential choice (CC), matching (M), and reassessment (R)**, (Lipshitz, 1994). These modes are best captured by nine attributes underlying every decision making process based on the following rationale (Table 1):

The first four attributes correspond to a series of issues that a systematic decision maker may wish to address: **What is the problem?** (*Framing*); **What constitutes a good reason for acting in a certain way?** (*Action argument*); **How can I reason in this way?** (*Strategy*) and **Should I proceed deliberately or intuitively?** (*Deliberateness*).

The next three attributes (*Commitment, Uncertainty and Logic*) delineate fundamental issues underlying any decision model. Finally, the last two attributes (*handicaps and therapies*) pertain to the pragmatic implications of the preceding parameters.

The distinctive profiles of the three modes on the nine attributes reveal that they are mutually exclusive (Table 2). This provides an **analytic** answer (actually three answers) to the question of how decision makers develop their commitment. The profiles constitute three distinct and non commensurable processes based, basically, on how the decision problem is framed and the underlying logic of action

Table 1. Basic attributes of decision processes

a. Process	
<i>Issue</i>	<i>Parameter</i>
What is the problem?	Frame
What constitutes a good reason for acting in a certain way?	Argument
How can I reason in this way?	Strategy
Should I proceed deliberately or intuitively?	Deliberateness
b. Foundations	
Action selection	Commitment
Doubts that block or delay action	Uncertainty
Action Rationality	Logic
c. Pragmatic implications	
Obstacles to effective decisions	Handicaps
Methods for removing these obstacles	Therapies

Table 2. Profiles of the three-modes on the nine decision attributes

<u>Parameter</u>	<u>Concurrent Choice</u>	<u>Matching</u>	<u>Reassessment</u>
Frame	Comparing alternatives	Matching solutions to problems	Reassessing pre commitments
Argument	Do 'A' Because it is superior to its alternatives.	Do 'A' because it's appropriate in the situation.	Do 'A' because it survived critical reflection.
Strategy	Weighing pro's & con's	Production systems	Critical Inquiry/Reflection
Deliberateness	Deliberate	Intuitive or deliberate	Deliberate
Commitment	Cognition-first	Cognition-first	Commitment-first
Uncertainty	Ignorance re- future outcomes, or undifferentiated alternatives.	Ambiguous or equivocal present situations.	Ambiguous/equivocal situations or undifferentiated alternatives.
Logic	Teleology	Deontology	Non-foundational/critical
Handicaps	Judgmental Biases.	Obstacles to effective SA.	Groupthink & commitment traps.
Therapies	Decision Analysis & De-biasing methods.	Empirically based pattern recognition & rule-based DM training or aiding.	Empirically based critical thinking training or aiding.

Decision Framing: Specifies the form in which decision problems are framed (i.e., basically conceptualized and structured) *from the decision maker's point of view*. The **CC** frame is concurrent choice among options with certain, risky or uncertain outcomes, the **M** frame is matching situations with appropriate actions based on past experience based on intuitions,

habits formal rules and informal norms or personal or societal values. The **R** frame can take either of these forms.

Action Argument(AA): This parameter is based on the premise that that decisions are driven by arguments that are basically structured as **Do 'A' for reasons 'R'** (Barber, Heath, & O'dean, 2003; Lipshitz, 1993; Shafir, Simonson, & Tversky, 1993). Each mode has its distinct AA. **CC's** AA is "**select A because it is superior to its alternatives;**" the **M's** AA is "**Do a because it is appropriate for the situation**" and **R's** AA is "**Do A because it survived critical examination.**"

Decision Strategy: Specifies the way in which the option to be implemented is selected. **CC** strategies describe or prescribe methods of comparing pros and cons (Gilovich, Griffin, & Kahneman, 2002). **M** strategies describe or prescribe rule-based systems (March, 1994; Hoffman, 2007; Lipshitz, 1993; Lipshitz & Cohen, 2005). **R strategies** describe failures of critical reassessment (Janis & Mann, 1977; Staw & Ross, 1987; but see Lipshitz 1995), and prescribe methods of critical inquiry and reflection (Cohen, Salas, & Riedel, 2002; Mason & Mitroff, 1981; Wack, 1985).

Deliberateness: Specifies the degree of intuitiveness vs. deliberateness of the decision process (Hammond, Hamm, Grassia, & Pearson, 1987).

Commitment and uncertainty and the tension between them are fundamental to the conceptualization of decision as committing to a certain course of action. Their following discussion, therefore, is somewhat extended.

Commitment: **CC** and **M** are cognition-first modes. They assume that decision makers "look before they leap," that is, think before they act. In the **CC** and **M** modes commitment, then, is an objective. The **R**, mode, on the other hand, acknowledges that decision making (i.e., gathering and

processing information) ostensibly takes place occasionally after decisions have been made (Damasio, 1995; Janis & Mann, 1977; March, 1994; Montgomery, 1988; Svenson, 1999; Zajonc, 1980). For better or worse, and whether we like it or not, many of our decisions are made for us by our upbringing, habits, obligations, past decisions and the myriad constraints that even the holder of that most powerful position in the world, the President of the United States, cannot quite shake off. As these factors constrain decision makers and trigger post-decision processes of posturing and rationalization, in the **R** mode commitment functions as a handicap. made (Brockner & Rubin, 1985; Janis & Mann, 1977; Staw & Ross 1987).

Uncertainty: Defined as sense of doubt that blocks or delays action, (Lipshitz & Straus, 1987), uncertainty, similar to commitment, is both a curse and a blessing. Commitment is a blessing when it puts implementation in motion and energizes perseverance in the face of resistance; it is a curse when it traps decision makers in tunnel vision, groupthink and escalation of commitment owing to premature or misplaced commitments that are left unexamined. Mirroring this line of reasoning, uncertainty is a blessing when it triggers vigilance and information search, and a curse when it leads to procrastination, paralysis, and missed opportunities. Thus, *the **fundamental dilemma faced by real world decision makers**, the rock and the hard place between which they constantly must juggle, is how to generate sufficient commitment to exhaust every ounce of realistic likelihood of success, while at the same time entertaining sufficient doubt so as not to ignore information flagging potential dangers that require to change course.*

It is extremely important to recognize that **both** uncertainty **and** commitment are necessary for effective real world decisions. This point is

bound to be missed by researchers with excessive rationalistic bent such as Staw and Ross (1987), who associate generators of commitment uniquely with failed outcomes and so suggest prescriptions for their neutralization. It is recognized by Brunsson (1985), who distinguished between a "regular" (vigilance driven) rationality warranted at the deliberation phase of the decision process, and an "action" (commitment driven) rationality that is warranted at the implementation phase. I would reformulate Brunsson slightly to the effect that both rationalities are required, albeit in different and varying proportions, throughout the decision making process.

Logic: As its label implies, **CC** is predicated on a consequentialist or utilitarian logic, and **M** presumes a deontological or obligatory logic, or alternatively, on accumulated individual and collective experience, (Lipshitz & Cohen 2005; March, 1994). The difference between the two logics is captured in a dialogue between an old lady, who is dying from cancer, and her nephew, a theology teacher in David Lodge's novel *Paradise News*. Expressing a simplistic consequentialist conception of faith, the old lady complains: "I don't see the point of religion if there's no heaven.... I mean, why be good if you're not going to be rewarded for it? Why be bad, if you're not going to be punished in the long run?" Her nephew answers, (significantly with a smile), "They say that virtue is its own reward" (Lodge, 1991, p. 205). This, of course, is a consequentialist reframing (or rationalization) of the original biblical deontological reasoning: we are **obliged** to be good by the Lord.

Finally, in stark contrast to the latter form of reasoning, **R** rests on the non-foundational logic employed by Schön (1983) in his work on reflective practice and advocated by Popper (2002/1969) in *Conjectures and refutations*:

"Never mind the source, or sources, from which [my decisions] may spring – there are many possible sources, and I may not be aware of half of them; and origins or pedigrees have in any case little bearing upon truth. But if you are interested in the problem which I tried to solve by my tentative assertion, you may help me by criticizing it as severely as you can" (p. 35). Incidentally, Popper's dictum highlights another distinction between the three modes. While teleology (and **CC**) are future oriented, and deontology (and **M**) are past oriented), the critical approach (and **R**) are present oriented.

The difference between consequential and critical logics is illustrated in Mozart's *Così fan tutte*, by the exchange between an old gentleman, Don Alfonso, and two young officers. Don Alfonso's claim, that all women are unfaithful, deeply offends the two young gentlemen who hold their brides exceptions to this rule. Rejecting dueling and Don Alfonso's superior experience (and hence, deontology) as proper methods for adjudicating their dispute, Don Alfonso and the soon-to-be-disillusioned officers decide to conduct an experiment. Thus, critical reasoning based on data supersedes rank, tradition, and, by extension, theory and belief. Below the surface of the light comedy, Mozart and his librettist, Da Ponte, celebrate the dawn of the enlightenment.

Handicaps: This parameter specifies obstacles to decision quality that are associated with each mode. Within **CC**, the JDM literature identifies a variety of biases produced by the judgmental heuristics that decision makers use under risk (Koehler & Harvey, 2007). **M** handicaps are obstacles to the development of effective situation awareness (Endsley & Garland, 2000), and **R** handicaps are commitment problems that produce Groupthink (Janis &

Mann, 1977), and commitment traps (Brockner & Rubin, ; Elster, 1974; Staw & Ross, 1987).

Therapies: This parameter specifies solutions for the handicaps specified in the previous paragraph. The JDM literature offers a variety of "de-biasing" techniques to help decision makers, for example, produce probability estimates that conform with the canons of Probability Theory. **M** therapies are empirically based training programs and decision aids that help decision makers approximate the decision processes of experts in their areas of expertise (Lipshitz & Cohen, 2005). **R** therapies are training programs and decision aids that help decision makers develop or apply on-line their critical thinking skills (Cohen, Adelman, Bresnick, Freeman, Salas, & Riedel, 2007; Cohen, Salas, & Riedel, 2002; Gambrill, 2006; Mason & Mitroff, 1981; Smith, 2003).

Several conclusions emerge from the preceding discussion:

- 1. Real world decisions are embedded in networks of paradigmatic assumptions of which decision makers may or may not be aware. These assumptions influence, to varying degrees, both which decisions are made, and even more so, how they are made.***
- 2. In practice, the above conclusion holds not only vis a vis mode-related paradigmatic assumptions. It holds, even more emphatically, with respect to the substantive and domain specific assumptions that decision makers carry with them in particular situations.***
- 3. The three modes are distinct to the point of incommensurability. Thus, decisions should not be conceptualized only in terms of choice or the gamble metaphor, and interpreting or prescribing across modes are likely to be misguided or unproductive.***

4. Hence, analysis of real world decision making should focus on how decision makers framed their decisions, the underlying assumptions that guided their decisions, and the extent to which these assumptions were compatible with the situation. The three modes provide conceptual tools for this analysis.

These conclusions will be demonstrated below in the analyses of the case studies concerning the failure of the Israel Defense Force in the second Lebanon War. Prior to that I present a psychological answer to the question of how decision makers commit themselves to a certain course of action. To this end I employ a model that, consistent with the analytical answer to the question of commitment generation presented above, conceptualizes decision making as the product of how decision makers' schemas (where their assumptions and knowledge reside), affect the information to which they attend and the meanings that they subsequently assign to it.

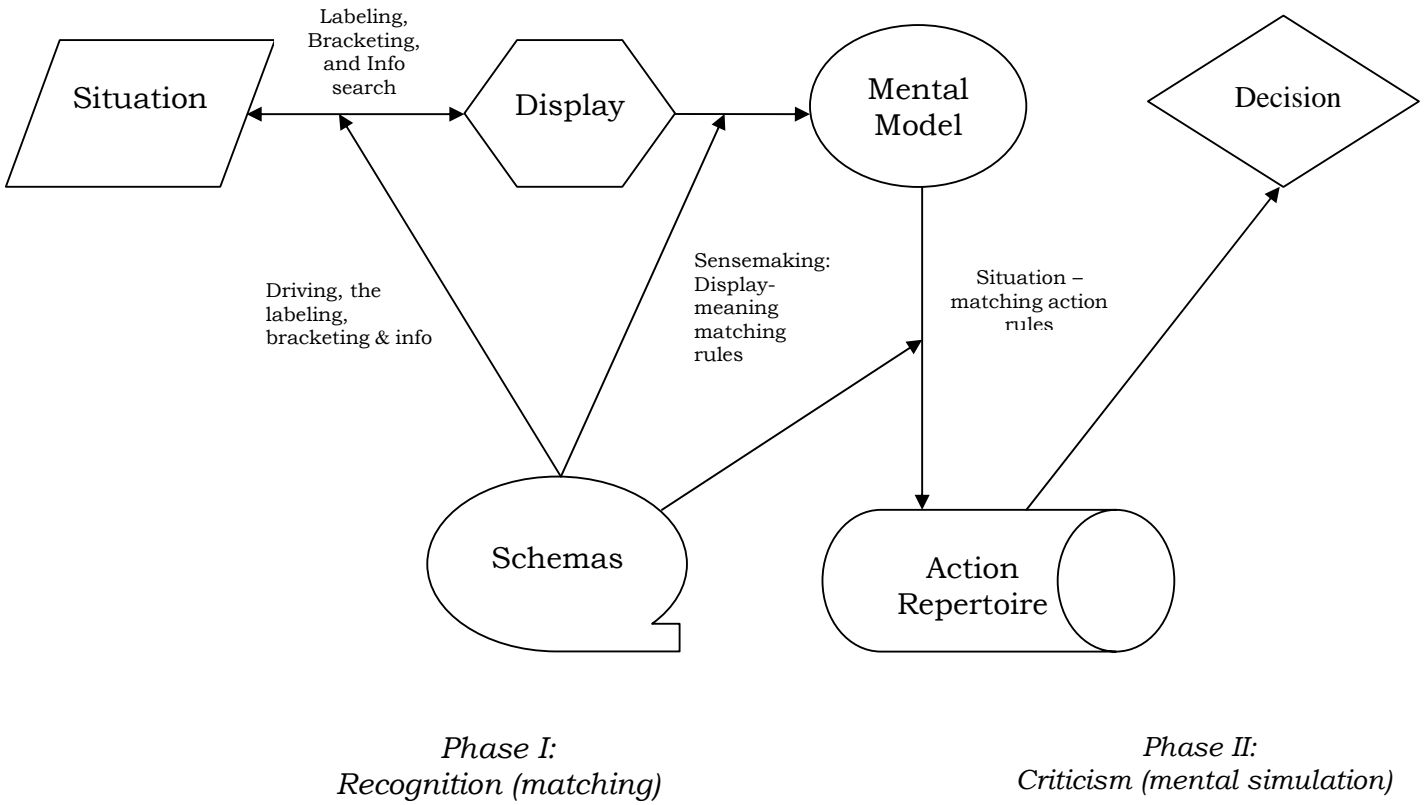
Schemas and Mental Models in Recognition Primed Decision Making

Figure 1 re-conceptualizes Klein's **M** RPD model of recognition primed decision making as a schema driven process (Lipshitz & Ben Shaul, 1997).

Three elements of this **SRPD** model require definitions:

Display: Borrowing from Weick (1979) a 'display' denote[s] information about the situation that is available to the decision maker. "In some situations, such as...the control of production processes via instrument panels, 'display' can be used literally. In most situations, however, the term is used figuratively. A fire-fighting commander's 'display' consists of whatever he can see, hear, or smell on the scene; the 'display' of a CEO's making a strategic decision consists of all the information that he or she

Figure 1: Schemas and Mental Models in Recognition Primed Decision Making – The SRPD model.



collect on their own or receive from their staff" (Lipshitz & Ben Shaul, 1997, p. 7).

Schemas: Following Neisser (1976), schemas are "Situation or domain specific cognitive structures that (a) direct external information search; (b) specify which available information will be attended to and which information will be ignored; (c) organize information in memory; (d) direct the retrieval of information from memory; and (e) becomes more differentiated as a function of experience" (Lipshitz & Ben Shaul, 1997, p.7).

Mental Models: Decision makers' subjective representations of their external situations and internal mental states (i.e., thoughts, attitudes and feelings). Whereas schemas are relatively stable, evolving cumulatively and incrementally across situations, mental models, which are designed to reflect nuanced variations as situations change in dynamic environments, are temporary, fickle, and constructed on the fly.

Owing to the inclusion of both schemas and mental models and their sharp functional and conceptual differentiation, the SRPD model can account for the fact that whereas experts generally collect more information - and thus take more time - than novices before they act, they respond more quickly and accurately under conditions of time constraints and sparse information. This is readily explained by the superior comprehensiveness and sophistication of experts' schemas: When information is sparse and time is constrained, experts' articulated schemas enable them to notice, quickly and accurately, which information is missing, search for it efficiently both internally and externally, and search for it efficiently both internally and externally or, failing this, compensate for it effectively by making plausible assumptions based on sound knowledge and rich association nets.

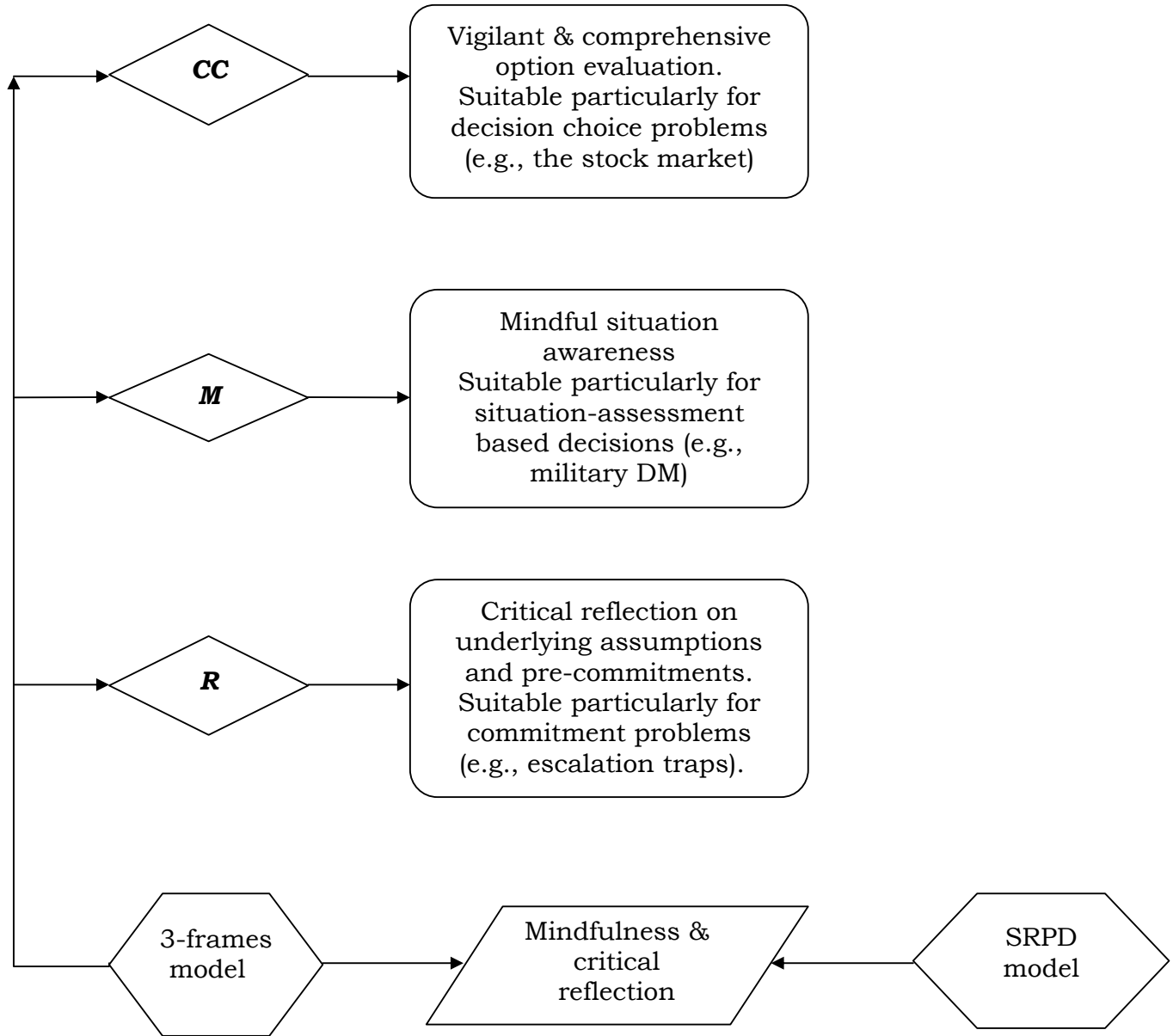
In the second instance, where time is of essence, the experts' more sophisticated schemas can guide them to conduct a particularly thorough information search, *and* a reflective processing of this information, once it had been obtained. For example, an expert is more likely to note than a novice that a datum is open to several interpretations, or that certain facts or implications are inconsistent with certain others, thereby requiring a reconstruction of the mental model to account for these complications (Lipshitz & Ben Shaul 1997).

Descriptively, the SRPD model integrates several models in addition to the RPD model Klein, 1998), including Endsley's model of Situation Awareness (Endsley & Garland, 2000), Cohen's model of R/M (Cohen, Freeman, & Wolf, 1996), and Weick's (1979, 1995) work on Sensemaking.

Prescriptively, the recognition component of the SRPD model implies that decision makers should be mindful of relevant changes in their dynamic situations, and its schema component implies that they should be critically reflective of their taken-for granted procedures and habits.

This leads me to complete the unpacking of decision making as committing to a certain course of action by integrating the prescriptive implications of the 3-frames framework and the SRPD models which will be tested in the next section of the paper (Figure 2). To begin with, their common constructionist stance implies that effective decision making depends on mindful awareness of the external situation. In addition, the assumption-driven nature of the framework, the mutually exclusive nature of its components, and the schema-driven nature of the model, imply that effective decision making depends on *critical reflection* on the *internal assumptions* that guide action. These implications are replicated by the specific prescriptive implications of the **M** and **R** modes. The implications of **CC** are

Figure 2: Integrating the prescriptive implications of
The 3-Modes and the SRPD Models



mostly relevant to economic domains such as the stock market, or any other domain in which decisions are presented as problems of choice, preferably with associated quantifiable outcomes and likelihoods. Frequently, however, real world decisions are more aptly captured by **M** or **R** mode models (e.g., Klein, Orasanu, Calderwood, & Zsombok, 1993; March, 1994; Montgomery, 1988; Staw & Ross, 1987), such as **M** procedures for assisting in situation assessment for fire fighters and military commanders or (Cohen) or **R** procedures for assisting decision makers who are trapped in escalation situations (Staw & Ross, 1987). Thus, mindful recommending either **CC**, **M** or **R** prescriptions should be contingent on mindful awareness and critical examination of their appropriateness to the situation at hand. Mindful awareness trumps every other consideration in prescriptive decision making. And since mindfulness is relatively divorced from the decision making literature, I turn next to review how this concept is employed in the present paper.

II. Mindfulness

Borrowed from Buddhist meditation, mindfulness is being aware of one's internal condition and external situation as fully and as consciously as possible. In this paper mindful awareness is defined as a set of mind that consists of five attributes. The first four attributes, are a subset of larger list published in an Australian Government Commonwealth Health Notice in 2003:

1. Being totally present in the here and now.
2. Perceiving things as they are without making more of them in the mind.

3. Letting go of wanting things to be a certain way or wishing they were otherwise.
4. Paying attention in a relaxed yet alert manner to what is being experienced.
5. A fifth attribute of mindfulness, which does not appear in the Australian publication but is crucially important for its present discussion, is the ability to note and the willingness to follow up on seemingly insignificant cues that may signal, however weakly, impending mishaps or disasters. Owing to this attribute of "heedful attention," mindfulness is essential to maintaining high reliability in organizations.

The fourth attribute highlights the fact that mindful awareness is paradoxical: It requires decision makers to be **nonjudgmental** ("perceiving things simply as they are") **yet critical**: "People act heedfully [i.e., mindfully] when they act more or less carefully, **critically** [consistently, purposefully, attentively, conscientiously, and pertinaciously]" (Weick & Roberts, 1993, p. 357).

The tension generated by the paradoxical requirement is somewhat relaxed once we discern that critical reflection is primarily required for examining underlying assumptions, while alert and nonjudgmental observation is primarily required for detecting signs of danger and wake up calls.

The tension generated by the additional requirement is somewhat relaxed once we discern that mindful decision making requires critical reflection primarily for detecting and evaluating underlying assumptions, while alert and nonjudgmental observation is primarily required for scanning the environment to be on the look out for signs of danger and wake up calls. To round out the role of paradox in mindful decision making, note first that the requirement for *both* uncertainty *and* commitment in real world decision making is also paradoxical.

An additional paradoxical aspect of real world decision making is that "although basic principles are all important, God (or the Devil?) is in the details". This paradox – or dilemma -- is the product of bounded rationality: burdening decision makers with details quickly exceeds their limited cognitive capacities. This leads to the principle of **profound simplicity**: doctrines, standard operating procedures, and decision rules should be simple yet capable to explain or applicable to a variety of complex phenomena and situations. Profound simplicity is epitomized by Darwin's model of natural selection, arguably the most earth shaking and far reaching scientific work ever. (Dennett, 1995). Profound simplicity assists mindful decision making by preventing unnecessary clutter and freeing scarce cognitive resources, as demonstrated in one of the case studies analyzed below.

Moving from individual to group and organizational levels, the norms that facilitate mindful decision making in these settings are identical to the norms that facilitate organizational learning: **inquiry** (persisting in investigation until full understanding is achieved), **integrity** (collecting and providing information regardless of its implications), **transparency** (exposing one's thoughts and actions to others), and **issue orientation** (focusing on the relevance of information to the issues regardless of the social standing or rank of the recipient or the source) (Lipshitz, Friedman & Popper, 2006).

Moving from theory to application, mindfulness techniques proved effective for reducing stress and treating depression (Williams, Teasdale, & Segal, 2007) as well as for reducing the risk of accidents in organizations (Weick & Sutcliff, 2001). These findings, which complement the prescriptive

implication of the three-mode framework and the SRPD model, suggest the following proposition:

Decision makers are more likely to meet their objectives if they employ mindful decision processes. Specifically, they should be:

- (1) critically reflective of their assumptions, and***
- (2) mindful of the peculiar characteristics of their specific situations, and the constraints that these impose on their assumptions, goals, plans, and decisions.***

To test this proposition I will examine its validity in four cases of decision making by commanders in the Israel Defense Force (I.D.F.) during the second Lebanon War. The first three cases are based on a widely praised and highly credible history of the war (Shelah & Limor, 2007). The fourth case is based on an interview that I conducted with retired General Amiram Levin.

III. The Second Lebanon War

The second Lebanon war is a reasonable arena for testing the proposition under investigation: Mindful awareness of dynamic situations and critical evaluation of pre-commitments to extant paradigms (i.e., assumptions, courses of action, and methods of operation), are particularly relevant to military decision making in combat for three reasons: (1) Combats are highly dynamic situations; (2) military planning and decision making are driven by situation assessment; and (3) heavily dependent on plans and doctrines which act as strong pre-commitments that constrain military decision makers. The War lasted 34 days between July 12 and August 14, 2006. This period, in which events eluded planners' designs and intended calculated risks turned were, in fact, risky calculations, can be summarized as follows: On July 12 the Hezbollah attacked an I.D.F. patrol, kidnapped two of its soldiers, while concurrently launching a diversionary attack along the entire

Israel - Lebanon border. A tank which crossed the border in pursuit of the kidnappers hit a huge roadside charge and was destroyed. Its crew of four were killed. Four additional soldiers were killed in the skirmishes that followed.

Contrary to Nasrallah's (Hezbollah's charismatic leader) intentions, Israel's General Staff, government, and public opinion did not interpret the incident as a Hezbollah attempt to force Israel to negotiate a prisoner exchange.

Rather, it was perceived as a strategic threat engineered by Iran, Hezbollah's patron, to further weaken Israel's power of deterrence following a successful Hamas kidnapping in the Gaza Strip.

Failing to interdict the kidnappers' routes back north (see case 1 below), the I.D.F. responded on July 13 with an extensive air campaign throughout southern Lebanon. Hezbollah's long-range rockets (capable of reaching Tel Aviv) were destroyed, and suspected supply routes (e.g., Beirut's International Airport and the Beirut-Damascus highway) were also attacked, despite their civilian status. Later on a general sea and air blockade was imposed.

Owing to the Hezbollah's rocket attacks that eventually killed 40 persons and injured numerous others, life for the civilian population in northern Israel became intolerable. People lived in fear and spent long time periods in inadequate underground shelters. The I.D.F.'s air campaign exacted considerably heavier human and material losses, but failed to stop the intermittent firing of medium and short range rockets. On July 23 Chief of Staff Halutz was reluctantly forced to replace his air-based strategy by a land-based strategy, to which the I.D.F.'s reserve units, in particular, were ill prepared. The results were recurrent equipment shortages, ground operations with mixed outcomes, and disgruntled reservists and retired

officers publicly criticizing the I.D.F.'s high command and government's poor handling of the war.

By October 1st the I.D.F. has withdrawn all its forces from Lebanon with two minor exceptions where the exact location of the international border is disputed. Hezbollah has moved its units back and does not maintain overt presence along the Israel-Lebanon border. In contradiction to UN Security Council Resolution 1701 which ended the war, both the Lebanese government and UNIFIL (the UN's observers force in Lebanon) have explicitly stated that they would not disarm Hezbollah. Israel's Chief of Staff, Gen. Halutz and its wartime minister of defense Peretz, have resigned. Prime Minister Olmert hangs on. The families of the kidnapped Israeli soldiers and Hezbollah prisoners -- on whose behalf Israel and Hezbollah ostensibly went to war -- are still waiting for their return.

IV. Case Analyses

Case I: The incident at report point 105

The case of "The incident at reporting point 105" concerns the kidnapping event that triggered the war. A simple unfolding (Table 2) of the events at the platoon level reveals recurring manifestations of individual and group mindlessness:

Table 2 The incident at report point 105

Time-line	Event	Interpretation
Background	To compensate for the blocked direct lines of view to report point 105, A VCR mounted on an observation pole is set up -- two weeks after the kidnapping incident.	Systemic level mindlessness

Background	The attacked patrol belonged to a veteran infantry regiment on its last day of reserve duty on Israel's border with Lebanon. Since it was well known that the Hezbollah was aware of the I.D.F.'s schedule of unit rotation, such dates were supposed to be sensitive.	
08:00	In a chance encounter, the patrol's commander, Ehud Goldwasser, is warned by the commander of the previous night's patrol that "this was a scary night --at least 20 Hezbollah fighters must have passed to our side of the border." Goldwasser takes no notice of the warning.	Goldwasser's Mindlessness
Later that day	Reflecting the expectant mood of reservists on the last day of service, and in clear violation of standard operating procedures, the six soldiers on patrol duty were not briefed about the previous night's patrol's lessons learned, and did not review the relevant combat procedures.	Group and systemic level mindlessness

8:55	An observation unit in the nearby Zar-it area identifies a Hezbollah fighter armed with an anti-tank missile taking a firing position. No report with this information is sent back.	Systemic level Mindlessness
9:01	The Hezbollah opens fire. Two soldiers are killed (the after action review reveals that their personal weapons were not loaded), two, manage to escape, and two are injured, captured and kidnapped.	Group level Mindlessness
9:27	The first message from the regiment regarding the incident is received by the division commander. The 26 minutes delay + other factors (see case II) preclude an effective response to the kidnapping.	Systemic level Mindlessness

Based on a simple unfolding of the day's events, it is fair to conclude that the incident's outcomes were, at the very least, exacerbated by recurring manifestations of mindlessness at the individual, group, and systemic (divisional) levels.

Case II: General Gal Hirsch

The second case examines decision making at the division/operational level.

The protagonist is Brig. General Gal Hirsch, commander of Division 162

which was responsible for the border sector in which the fateful kidnapping occurred.

Talented, ambitious and conscientious, Hirsch worked tirelessly on updating the division's operational plans and preparing it towards two contingencies that he considered to be highly likely: A large scale confrontation with the Hezbollah, and a kidnapping attempt identical to the one that eventually did trigger the second Lebanon War. What, then went so tragically wrong for this officer?

Hirsch infused his plans with concepts and terminology imbibed from an "advanced" operational doctrine adopted by the I.D.F. in 2005. The doctrine, which remained controversial, used terminology that confused many commanders and staff officers, particularly in the veteran reserve units, to whom it sounded arcane. For example, Hirsch's contingency plan for a large-scale confrontation with the Hezbollah was designed to achieve a "shock and awe effect" by conducting a fast "swarm infiltration" deep into Hezbollah controlled areas. Both concepts were borrowed from the operational doctrine of the US Army. Unfortunately, by applying them uncritically to the I.D.F., Hirsch failed to notice that they suffered from three glaring limitations:

- ***It is extremely difficult to gauge whether an abstract effect such as "shock and awe," has in fact been achieved. This is particularly true for effects that are designed to operate on the enemy's mind which are not directly observable.***
- ***Novel and arcane sounding concepts, such as "swarm infiltration," are likely to be ill understood and hence ridiculed and rejected by those who are "not in the know."*** Indicative of a wider problem, a TV program that was allowed into one of Hirsch's brigade commander's command post

during the war, caught him expressing the opinion that Hirsch was "out of touch because he was still [stuck] with the swarm infiltration" .

- ***Shock and awe assumes a war between regular armies of which one is technologically more advanced than the other (e.g., operation Iraq Freedom). This was not the case in the Second Lebanon War. The Hezbollah, like all guerrilla organizations, immersed its fighters, rocket launchers, and infrastructure within the civilian population. Under these conditions, achieving "shock and awe effects" through massive deployment of force is likely to incur heavy costs in civilian casualties and damaged property. These are neither practical nor conceivable in small states and open democratic societies.***

Hirsch's operational war plans were fundamentally flawed owing to two problems: They were based on irrelevant assumptions, and ill understood by lower ranks. Both could have been revealed by mindful awareness and critical reflection of assumptions.

Hirsch's contingency planning for a kidnapping attempt also exhibits uncritical adherence to assumptions and mindless situation awareness :

1. Perceiving a Hezbollah kidnapping attempt as principal threat in his sector, Hirsch ordered his forces to deploy "30% in the front and 70% in the back." His intention was that units will stay in high ground areas away from the border fence, where they could safely concentrate on intelligence gathering. Post war after-action reviews revealed that in practice this order was interpreted as "devote 30% of the time to operations and 70% to rest."
2. Hirsch's standard operating procedure for a suspected border crossing followed a similar logic. Units were to deploy away from the fence in areas that dominate the suspected crossing point, prudently staying away from the danger of capture close to the fence. Again, while Hirsch was anticipating

and preparing to forestall kidnapping attempts that may occur with no advance Intelligence warning, the reservists who held the sector when the incident did occur were led to understand (by their brigade commander), that an advance warning will always be forthcoming. This gross breach of military doctrine, is also a manifestation of individual (Hirsch's) and systemic (divisional) level mindlessness, as well as providing an additional explanation for the mindless decision making analyzed in case 1.

3. Hirsch' also prepared a standard operating procedure in anticipation of the type of kidnapping that initiated the war. The procedure, which had frustrated effectively several kidnapping attempts prior to July 12, was contingent, on the availability of advance Intelligence and sufficient deployment of artillery. These were not satisfied on July 12. Thus, Hirsch's faith in the procedure and his order to enact it without taking corrective measures were unwarranted. Absent precise intelligence, the attack helicopters that scrambled to intercept the kidnappers failed to find them, and with only a few batteries deployed the artillery fire to interdict the routes to northern Lebanon was ineffective.
4. In conclusion, Hirsch's behavior demonstrates a failure on **sensitivity to operations** a basic principle that High Reliability Organizations (HROs) employ to "manage the unexpected" according to Weick and Sutcliff (2007, p. 59): monitoring "expectable interactions with a complicated [and often opaque] system and respond[ing] promptly to those unexpected." Ironically, Weick and Sutcliff present sensitivity to operations as a principle of *anticipation*, an activity that preoccupied Hirsch and in which he quite excelled. Where he failed was to (a) anticipate the inevitable failure of his anticipation (i.e., predictions) in highly uncertain situations – which require constant monitoring of the actual situation on the ground – and (b) his love

for abstract language which, as we have seen, induced him to adopt inappropriate terminology and tactics and which generally obstructs accurate detailed knowledge of the situation on the ground (Weick et al., 2007, pp. 53-58).

Case III: "Leave them to rust."

The third case examines discontinuities between the strategy for frustrating the threat posed by Hezbollah's rockets devised prior to the war, and subsequent operational plans and decisions that guided its actual conduct. While the threat posed by the immense arsenal of rockets deployed across its northern border preoccupied Israel's strategists for a long time, in practice scarce resource were pumped into the occupied territories, where demand had increased exponentially since the outbreak of the second Palestinian Intifada (uprising). Hovering above was the politicians perennial reluctance to raise taxes (which would have slowed down the steadily increasing standard of living), or divert available funds from badly required civil services to the equally badly required security needs.

The strategic dilemma between Hezbollah and the territories dictated the restraint with which both Prime Ministers' Barak and Sharon consistently responded to Hezbollah provocations. Around 2001 the I.D.F.'s Chief of Staff, Lt. General Moshe "Bogi" Yaalon devised a strategy of "containment" that was specifically designed to deal with the dilemma and its associated constraints in resources and actions. The strategy and its rationale can be summarized as follows:

1. Based on lessons learned in a war game conducted by the I.D.F. GS early in 2001, it will be extremely difficult to neutralize the Hezbollah's short and medium range rockets.

2. There is no point in provoking the Hezbollah to employ its immense arsenal, which, left to rest on its shelves, will simply rust.
3. Hence, response to every Hezbollah action should be forceful but measured, taking care not to ignite the entire front.
4. To keep ground units out large-scale confrontation in Lebanon, the I.D.F. had increasingly relied on its Air Force, whose budget was virtually untouched, in both its ground operations against the Palestinians and its operations and plans for Lebanon. As this seemed
5. Applying Liddel Hart's (2003) indirect strategy, Israel should target its response to the real "shareholder" – Syria.

One consequence of the protracted conflict in the territories was that its combat units virtually stopped training. Prior to the second Intifada these units rotated between 17 weeks of operations in Lebanon or the territories and 17 weeks in training. Following its outbreak regular army units, received, at best, two weeks of training per year. Worse yet, the experience that they presumably gained in fighting poorly trained Palestinian fighters, proved inapplicable – or even dysfunctional – to the better trained and better equipped Hezbollah units. Most reserve units did not gain even that experience, since expediency dictated keeping them away from the politically sensitive territories.

High ranking officers repeatedly warned in successive General Staff strategic discussions of the deteriorating state of operational preparedness of its combat units. This deterioration could be accepted as calculated risk within the logic of Yaalon's strategy of "let them to rust" which relied primarily on Air power. Note, however, that the I.D.F.'s contingency programs still included ground operations requiring the mobilization of reserve units. Admittedly, these units were to receive two days of training in order to

compensate for their deficient preparedness. Sadly, the findings from an interview conducted by one of my Ph.D. students with the commander of a regular Army brigade show that this provision was unwarranted and untested. For example, the brigade was sent northward piecemeal, with its last regiment arriving only three weeks after the outbreak of hostilities. For their refresher course soldiers were sent to a training facility designed for combat in open-fields. The brigade, however, ended up fighting mostly in densely populated urban areas. The experience of this commander must have been representative. Otherwise how do you account for another commander's report that in a post-war after-action review of his unit, in which "...the question was why the tanks were hit by missiles at that point... I realized that there is an SOP for this [particularly complex maneuver [executed by his unit] that explicitly spells out a series of operation, who requests authorization to move and who grants it; however, since no one knew about it, it was not executed." Years of engaging small irregular forces in the territories produced I.D.F. officers fairly ignorant of their profession. A two-day refresher course – to be administered in the perennially chaotic environment of a pre-war period – was more of a fig leaf than a sign that the problem has been recognized and given serious consideration. Ironically, in the final analysis it was Yaalon's own combat units, rather than the Hezbollah's rockets, that his strategy left to rust.

According to a well-known adage, "Man plans and God laughs." A less fatalistic – and more useful – interpretation of this case would point out the errors of mindless awareness and uncritical reasoning committed, first by Gen. Yaalon and the officers who planned the mobilization of reserve ground units, and then by his successor, Gen. Halutz, both when he let himself

believe that an air-based strategy would be effective, and when he assured the government to that effect.

Two readers who commented on a draft version of this paper posed the following objection that challenges both its theoretical validity and practical utility: All three case analyses benefitted from hindsight wisdom. Post-hoc it is always possible to find a procedure or doctrine article whose infraction would explain a failure, (rendering the mindlessness proposition disconfirmation- proof). In hindsight it is also relatively easy to identify misguided assumptions or actions that can account for it (glossing over its difficult on-line applicability). While both criticisms have merit, they are not, by any means, conclusive. First, it should be acknowledged that critical awareness, similar to all prescriptive methods, can guarantee success only in retrospect and requires considerable effort and training for skillful on-line application. Nevertheless, it is easy to see that the various parties in the three cases can be faulted for failing to engage in any critical evaluation of their plans, let alone their underlying assumptions. Furthermore, the next case will show that it is also reasonable to assume that certain inconsistencies between the elements of a plan, or between a plan of action and the assumptions that it implies, or means – ends incompatibilities, can be discerned on-line through rigorous, evidence-based, reasoning.

Case IV: Are you serious or do you come for the sex?

Retired Major General Amiram Levin was a past commanding officer of the I.D.F.'s northern command. Contrary to his diminutive figure, Levin enjoyed an almost legendary status among the I.D.F.'s officer corps. Thus, when as a troubled civilian, he decided to find out why the ground campaign was failing to stop the barrage of Hezbollah rockets, Hirsch's colleague, Brigadier Gen. Erez Zuckerman, welcomed him to his Division.

"They were throwing bombs and artillery fire at the Hezbollah" says Levin, "as if there was no tomorrow. In fact, during this war they used more bombs and artillery than during the [1973] Yom Kippur War, in which the I.D.F. engaged the Egyptian and Syrian regular Armies, and on what? on suspected areas marked on their maps. I went to the Fire Center (where aerial and artillery support activities are coordinated), assessed the situation for 45 minutes and concluded that they were badly off mark. I went to Zuckerman, received his permission, and met with the Center's staff.' 'You guys,' I told them, 'don't even know on what you are wasting your fire. You claim to have no Intelligence. Let's then proceed on the basis of a simple Pareto analysis. If we forego small villages and kibbutzim with 100-400 inhabitants, we are left with 4 large cities and towns. I will be surprised if the Hezbollah targets them from more than 3 or 4 sites, which will account for roughly 80% of the rockets landing in Israel.' They checked, and came up with 4 sites. 'Now,' I said, 'since Kiryat Shmona [a badly hit town on the Lebanon border] is of greatest concern, your first target should be the site in which your action is likely to be most effective.'

Turning to examine the ordnance that they were firing, I discovered that the Air Force used only [expensive] smart bombs, which left a huge surplus of "dumb" bombs. This made absolutely no sense. It turned out that the Air Force would not bomb unless the target could be marked for precision bombing. That was a misapplication of an SOP originally devised to disable heavily fortified stationary Syrian positions. Now it was used to disable Hezbollah launching sites from which two guerrilla fighters fired Katyusha rockets, disregarding the fact that by the time the bombs hit the ground, the fighters were long gone only to return later and shoot again.....

Examining aerial photographs I discovered that the launching sites were typically small sized, about 100 X 300 square meters, and that they were operating on a more or less fixed, and known schedules. It was amazing. [Contrary to their claim], the Fire Center possessed every [required] datum. Based on this analysis, I proposed that an hour before the Hezbollah's scheduled rocket attack, four I.D.F. fighter bombers should carpet-bomb the launching site with dumb bombs. Although their effectiveness is known to be 10%, the psychological effect is horrendous, as we know from an incident in which a convoy was bombed by mistake during the 1982 Lebanon War. Then, 15 minutes before the schedule attack, a complete artillery group should open with every type of ordnance that it has – T.N.T, Phosphor, and smoke and delayed action ordnance. And now repeat the exercise four times per day. No fighting unit in the universe can withstand this inferno. Working systematically, disabling one site and then moving to the next, they could have solved the problem of the Hezbollah rockets in four days. I went from one General to another, they all said that I was right. Meetings and video-conferences were held -- but nothing happened. This was beyond belief. All they really had to do was to notice that (1) our civilian population is under fire and (2) we were failing to stop it."

It is fair to conclude that this critique, by a generally admired retired general, is surprisingly consistent with the basic thesis of this paper: The I.D.F. failed, at least in part, because the decision making processes that guided its planning and operations suffered from mindless awareness of the situation on the ground and uncritical adherence to its plans, assumptions, and paradigms.

At this point you are probably wondering about the relevance of the case to its title. The title comes from the following anecdote which Levin used to convey his lessons from this experience:

A Wall Street investment banker decided to supplement the excitements of the derivatives market by travelling to Kodiak Island to hunt a big Grizzly. After purchasing a large-caliber 'bear-stopper' rifle, he set out to the wild, and when an immense male ambled between his gun sights, took careful aim, and hit its skull with a loud thud. To his amazement, the bear just shook its head, and stormed the banker's hiding spot, catching the hapless hunter-turned prey between its huge paws in no time at all.

'Well Mac,' said the bear to the even more surprised banker, 'I give you two options. Either we have sex or you are history. What's your choice?'

That was no problem for an investment banker specializing in derivatives. Figuring that whereas death is final there is life after sex, the banker had the experience of joyless sex with a male bear. Humiliated and furious, the vengeful banker flew back to the city, bought an even larger caliber bear stopper, returned to the island post haste, and – to cut a sad story short – found himself, not once but twice more, between the bear's paws. On the third time, the bear eyed him quizzically and said: 'I don't get it: are you serious, or do you come for the sex?'

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The moral of Levin's story, which also summarizes the lessons of the fifth case, is packed into the term "being serious." In my opinion, unpacking the term reveals four components that confirm the prescriptive implications of the three- mode frame and the SRPD model: "Be *mindful* (e.g., of the effectiveness or ineffectiveness of the methods that you choose to achieve your objectives) and *critical* (e.g., of their underlying assumptions); use *profound simplicity* and *common sense* as guiding principles when no theory

or doctrine are available; and use the principles of *evidence-based management*" wherever these hold. While I cannot vouch that Levin would agree with this interpretation, his actions -- as I will shortly show -- provide their excellent demonstration. This is not surprising. After all, the concepts on which the careers -- and occasional fame -- of some outstanding past social scientists rest were built by listening to accomplished and thoughtful practitioners, and carefully observing how they practiced their skills. I turn to discuss Levin's 4 lesson learned in some detail.

Mindful awareness: The Fire Center continued to pour ineffective fire, blissfully ignoring, or as if blissfully unaware of their poor output. Their MO (mode of operation) can be characterized as "more of the same". In contrast, Levin's point of departure was the plain fact that the adopted solution simply did not deliver.

Critical evaluation of assumptions: The procedure used by the Fire Center assumed a heavily fortified stationary target. In contrast to Levin, who realized its inappropriateness to Hezbollah moving targets, the Fire Center followed it uncritically. Its staff, I suspect, was ignorant of the procedure's historical pedigree. This example suggests that in contrast to therapeutic settings, expertise may be important to effective application of mindfulness techniques for the improvement of practice. This suggestion is consistent with the definition of mindfulness as "striving to maintain an underlying style of mental functioning that is distinguished by continuous updating and deepening of increasingly plausible interpretations of the context, what problems define it, and what remedies it contains" (Weick & Sutcliff, 2007, p. 18).

Common sense and simplicity: Basically, Levin's MO amounts to common sense. The basic rule is: "Define your objective, find or design a means (i.e.

solution) to achieve it, and if one solution does not work, try another," supplemented by some auxiliary rules, such as "stay within your means," or, "use whatever, or everything that you've got." This may sound simple or simplistic. In fact it is quite deep, possibly profound. One of the best kept secrets about common sense is that it is not at all common. A corollary to this secret is that the best, or at least most useful, social science theories are those that make (common) sense. These are the theories in Lewin's dictum "nothing is more practical than a good theory," and to which Mintzberg refers in his call for more useful leadership theories in his paper "If you are not serving Bill and Barbara, then you are not serving leadership."

In other parts of my interview with Levin he explicated the importance of simplicity implicit in his reasoning and action in the fourth case:

"The strong tendency to formalize procedures in the I.D.F. drives away both straightforward reasoning and people's ability to separate the wheat from the chaff. Instead of having a simple, logically sound basic procedure that is applicable, with proper adjustments, to myriad situations, we have numerous procedures that are hardly applicable in real situations.... This creates a Catch 22 situation. On the one hand the emphasis on procedures pushes people away from dealing with the issues to filling out check lists; on the other hand nobody reads them because of their number, complexity, and impracticality.

In my opinion, there are no fundamental differences between the process of situation assessment at the Division, Corps, Command, and Chief of Staff levels. Whatever differences that do exist lie in the perspective from which the commander views or applies the same set of basic principles and rules at each level. In my days in the Northern Command we used the same simple

procedure that I had used as a division commander which I have originally adapted from the procedure for platoon commanders that I've learned in officer's school. In contrast, the I.D.F.'s current procedure is inherently complex and its terminology makes things worse. In place of the simple traditional terms namely, 'objectives', means 'tasks', and 'available forces' [which can be defined objectively], we now have 'resources', 'constraints', and 'effects' [which are entirely open to interpretation]. These were all imported from the business world, to be used by officers who don't really understand them. The only thing that I added in my procedure, based on common sense, was a test phase, in which the commander tests, at the end of the process, whether the plan that emerged from iterative deliberations by different groups of people was compatible with the intentions."

A significant prerequisite for effective implementation of Levin's prescription for a simple but pliable basic core procedure is that decision makers should be trained to adapt the core procedure to their changing situations. Levin clearly possessed this skill, requiring a sound grasp of the procedure's essential features on the one hand, and an astute analysis of the situation's specific requirements, on the other hand. It can also be observed in exemplary cases of organizational consultation, such as Emery's adaptation of the socio-technical systems model, conceived and designed for production systems, to the analysis and design of maximum security prisons (Emery, 1970), and in Weisbord's and Jannof's (2004) adaptation of the Future Search method, originally designed for long range planning, to organizational re-design.

Evidence-based management: Evidence based management (EBM, Pfeffer & Sutton, 2006) can be interpreted either as basing managerial decisions on the best available relevant scientific knowledge, or, as simulating scientific

practice under the assumption that "using better, deeper logic and employing facts to the extent possible, permits [decision makers] to do their jobs better" (Pfeffer & Sutton, 2006, p. 13.) Levin's MO is clearly consistent with the latter interpretation. In contrast, the eagerness in which the I.D.F. imported uncritically and ill-advisedly some business methods and concepts is entirely consistent with one of the dysfunctional practices that EBM is designed to correct: The glorification and adoption of "new" ideas, particularly if they are in vogue, or advocated by a charismatic business guru.

Discussion

The first three cases analyzed in this paper confirm the proposition that the I.D.F.'s failure in the second Lebanon War can be partly attributed to mindless and uncritical decision making at various command levels during its planning and initial stages. The fourth case shows that the proposition also holds for the decision processes that guided operations on the ground. At the outset of the Discussion I wish to substantiate the claim that this proposition and the associated findings and lessons from the four cases are generalizable to decision making in general, and to decision making in business, in particular. These claims are based on the basic similarity between the prescriptive ideas developed in the present paper and Pfeffer & Sutton's (2006) work on EBM, on the one hand, and Weick's work on sensemaking (Weick, 1979, 1995) and his work with his associates on high reliability in organizations in various domains (Weick et al., 1999), on the other hand. In addition, although a pure conjecture on my part at the present point, I am willing to bet my wife's last dollar that analysis of the decision making that led to the US' unhappy entanglement in Iraq would

reveal similar, possibly identical, errors of mindlessness and uncritical reasoning.

Abraham Kaplan, who authored *The conduct of inquiry*, (1964), a well crafted work's merits speak for themselves: "the gems glint through the slits in the pauper's rags." His student, Don Schön, on the other hand, cautions that "good work is eventually recognized, but needs to be helped along."¹ To be on the safe side, and hoping to have done at least a decent level work, I opt for Schon's advise and turn to help my work along by pointing out its modest contributions to decision making research:

1. The paper presents a psychological and inclusive conceptualization of decision making. It is **psychological** in that its secondary guiding metaphor (in addition to commitment) -- *decision maker as a Sensemaker or Interpreter* -- aligns it with psychological theories (e.g., schema theory). In contrast, the gamble metaphor aligns CDM and JDM/BDT with Economics and Bayesian Statistics. It is **inclusive** in that although radically different from the calculative conceptualization that underlies mainstream decision research, it does not reject it altogether. Instead, it specifies the conditions under which its premises are suitable for understanding decision behavior and improving decision quality.
2. Pursuant to this distinction, the descriptive facet of the model is strongly **historical** and **context** related: Real world decisions cannot be properly understood outside their historical and social contexts. At the individual level, this aspect is captured by the schema component of the SRPD model. At the organizational level, this aspect is captured by requiring analysts to track the evolution of decisions from the interaction between different players, past commitments, and other contextual constraints.

3. By linking decision making to history – and hence, to learning, the paper presents a proper understanding of "bounded rationality." This emphasize that human decision makers compensate for their cognitive limitations by means of two mechanisms, (a) learning from experience and (b) prioritizing problems and attending to them according to their order of priority.
4. From the perspective of prescriptive decision making, the paper places mindful awareness and critical reflection at the center of attention, linking it to the work of and Donald Schön (1987) on reflective practice, of Cohen and his associates (Cohen, Salas, & Riedel, 2002), and of Mason and Mitroff (1981), on critical thinking, and of Weick, Roberts, and Sutcliff on Mindfulness and High Reliability Organizations (Weick & Sutcliff, 2007). This points to two interesting directions for future research: (a) Mapping factors that hinder and facilitate these activities, and (b) designing methods to help decision makers acquire and practice them effectively.
5. Finally, the paper proposes that mindful decision making is embedded in sound substantive knowledge: Noting subtle and nuanced variations within features of diverse displays, or between features of changing situations, particularly in dynamic environments, requires expertise (Klein & Hoffman, 1993). This is in contrast to clinical applications of mindfulness, and thus should be of interest practitioners interested applying mindful awareness to improving of professional practice.

I will conclude with a wonderful story from my good friend Micha Popper's experience. During the 1973 War he served as a reservist. Hitch hiking home on one of the furloughs he dozed on the back seat while at the front the kind driver droned on and on, mistaking Micha's intermittent nodding

for agreement or encouragement to proceed. When Micha took his leave his benefactor's parting words were: "You are a great conversationalist, I really enjoyed your company." In the same spirit I wish to thank you for your patient listening and to tell you that I truly enjoyed our conversation.

Notes

1. Personal conversation.

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