Role of Assumptions in Security Environment Analysis

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Abstract: In the Information Age, the information overload transfers the burden of information business from obtaining data and information to its *selection* and processing, in the effort to produce studies or intelligence useful for international relations management. The criterion for selecting information is its *relevance* for a specific analytical task. By information relevance one can understand the degree of association between certain information and the issue of interest, or the measure that information matches the requirements for clearing the analytical problem. How can this be established? Of course, not directly, because there is no map of connections within information, although a key-word list or an index of terms might be available.

Keywords: Information Age; information relevance; data

1. Congnitive Constructions Meant to Simplify Reality

The dynamics of contemporary international relations raises apparently unpassable hurdles even for understanding the security environment, as well as for assessing developments, for forecast and future studies. Therefore, the classic analyst job, approximating the truth, becomes ever more difficult and demands cognitive tricks, albeit either unconscious, instinctive, or deliberately assumed.

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that information matches the requirements for clearing the analytical problem. How can this be established? Of course, not directly, because there is no map of connections within information, although a key-word list or an index of terms might be available. The analyst must identify all possible *significations* of a certain event, of a new detail, or even the significations of non-action. Squeezing the information of all possible significance is a first-hand duty fro the analyst, who ought to constantly ask himself questions regarding incoming information and the unknown reality.

But this selection by information relevance is inherently accompanied by the reverse process of deselecting, that is the action of shedding certain information from the analytical process regarding a given issue. By deselecting, information assessed to have no or little connection to the issue is extracted from the process, for being irrelevant for that specific analytical task. Considering the complexity of security realities, the analyst needs a simplified version of the unknown, forged "by a set of biological, social [and psychological], at individual level. These filters have the role of transforming reality in digestible segments, which can be processed by human mind" (Marius Antonio Rebegea, 2013, p. 277). Adapting the reality representation by these filters is done "through three mechanisms of shaping human experience: *generalization*, *omission*, and *distortion*" (Marius Antonio Rebegea, 2013, p. 277). In complexity circumstances of contemporary environment in general, not only in security, the *function of thinking is* "*mainly*, *eliminatory*, not productive" (Aldous Huxley, 1954, p. 270). Therefore, the analyst uses these tools, *omission* among them, for simplifying reality, i.e. ignoring information deemed irrelevant for the analytical task.

It is interesting that humans perform this *selection* / *deselecting* process both consciously, during the mental process of analysis, and unconsciously, when "navigating" across the sorrounding ocean of information. From an analytical point of view, this procedure of selection continues after the first contact with incoming information, during the phase when the observer / analyst turns to understanding reality, and organizing the cognitive domain associated to the analytical problem.

2. Analytical Absorbtion of Information

The analysts perform what is called ”active reading” the text, not the general reader perusal. As a specialized reading procedure, the active reading principles recommend the following actions: (Irena Dumitru, 2013, p. 270):

- Identification of “closed” points of view in information, i.e. “What did he mean”? , “So what?”;

- Reconstruction of information from other source perspective – “How would Mr. Brown tell this story?”;

- Primary evaluation of incoming read information based on quality, accuracy, relevance, deepness, breadth, and significance;

- Identification of contradictions in the way the event is reproduced – “What does not fit?”, “What does not hold water?”;

- Identification of possible “hidden agendas” and interests hiding behind the story – from this analytical requirement stems the conspiracy theory syndrom, which, many times, tempts the analyst. Professionalism presses the analyst to seek these aspects, but, in the same time, prevents him from seeing conspiracy behind any statement he reads;

- Identification of hidden facts and cut-off information – “What is missing from the suspect’s pocket?” or “Why did the dog not bark?”;

- Identification of points of view which are systematically presented either in favor or against certain course of action or subject.

It surely seems complicated and one can ask whether the analyst can actually finish his work once he is done reading. Well, it is not like that. Indeed, analysts read with more attention and apply these recommendations, but the moments this happens during usual reading are not that often. On the other hand, experienced analysts, who are knowledgeable on the issue, almost only read the text which point to such analytical scrutiny, and the relevant elements pop up without having the due questions raised. The skill is there an dis watching.

However, based on these recomendations, a structure of active reading has been established (Irena Dumitru, 2013, pp. 272 – 276) in seven subsequent steps:

- Previsioning– a general look on the text, before reading, perusal of introductory messages and subtitles;

- Contextualization– placing the document in a broader framework;

- Raising questions to which the paragraphs or ideas respond;

- Assessment of own answers– identification of own biases and assumptions which can afflict understanding of the document;

- Identification of main ideas, drafing a summary. "The result obtained by rephrasing... and in a shortened form reflects the way active reading can help understanding the text" (Irena Dumitru, 2013, pp. 275);

- Argument evaluation, i.e. weighing the "attempts to demonstrate a statement, called conclusion, based on the veridicity of other statements, called premises" (Irena Dumitru, 2013, pp. 275);

- Comparing the information for identifying either convergence points or split points with other information already known or attributed to other sources, aiming to judge the veridicity of that information (Irena Dumitru, 2013, pp. 275).

3. Inferences and Assumptions in Intelligence Analysis

This manner of absorbing an informational text leads to the next phase of analysis, which sends the analyst, from a cognitive point of view, into the unknown territory of judging the reality hiding behind available data and information. Intelligence analysis is a charting job, and the analyst... is a cartographer. Security information..., as a finished product of the process of analyzing primary data and information, is nothing else than a chart (re)presenting a certain territory, albeit real or potential (Marius Antonio Rebegea, 2013, p. 277). Exploring the unknown takes place either for realities placed in the past, in the case of explaining already completed events; in the present, for quickly understanding current developments; or for future events, in the case of assessments, prognoses, and forecast regarding future realities.

A first step in charting is conducted through short forrays into a possible universe, that is through inferences, which answer to the need "for providing meaning, finding significations, attributing goals and causes" (Irena Dumitru, p. 279), and by which the analyst" interprets specific actions as being examples of behavior *patterns*, of intentions or feelings" (Irena Dumitru, p. 279). Thus, *inference* is a "mental process by which a general conclusion is extracted from several particular

facts", they are "*educated presumptions*, based on facts" (Irena Dumitru, p. 279) that extend the logic towards statements regarding unknown areas of reality.

The same family with presumptions is shared by *assumptions*, which are cognitive constructions which can be either sub-conscious, instinctive, or deliberate, forged by the analyst aiming to chart the unknown. As Bernard Shaw put it, nature cannot admit emptyness, and where humans do not know the truth, they fill the void with assumptions. More precisely, the analyst builds components by which he provides structure and he limits the unknown reality in the sense required by the analytical task. The analyst needs these additional components as suppositions suplementing the absence of facts necessary for understanding the reality or necessary for planning. Therefore, assumptions work as bridges over knowledge gaps, brifges which allow the analyst to navigate towards waters of more interest for the analytical task[1]. But the components added to known facts, the bridged unknown waters, are estimated to be steady, constant, or showing an irrelevant evolution, therefore neutral from the point of view of the analytical purpose. Assumptions can be explicit, mentioned as such in the part presenting the preconditions, the analytical bases, or they can remain tacit, implicit, although the analyst is aware of them.

Philosophically, assumptions can be associated to the *a priori* knowledge that Kant introduced, which is located beyond empiric knowledge that, anyway, "never provide true or strict universality to their judgements, but only a supposed and relative universality, by induction" (Immanuel Kant, 2009, p. 52). Even before judgements offered by concrete experience, "a judgement thought in the same time with its need is firstly found, this is an *a priori* judgement" (Immanuel Kant, 2009, p. 52). This construction before the concrete experience is not infallible, it is even the source of many analysis errors. However, it is worth mentioning that assumptions belong to creative thinking, and they speak to all *syntetic principles of pure intellect*: *axiomas of intuition*, *anticipations of perceptions*, *analogies of experience*, and *postulates of empiric thinking*, in general (.Immanuel Kant, 2009, pp. 185 – 238).

In practice, the object and extent of assumptions are very important, meaning what precisely is considered stable or with irrelevant dynamic for the upcoming analysis task. At the begining, assumptions are perhaps more important than the elements

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considered relevant, because the latter would be subjected to later processing anyway. But the omitted components and constructions would not be further scrutinized, therefore sometimes causing analysis errors if neglected or sloppily introduced.

Thus, the price of assumptions is dearly paid with intelligence failures or, in general, with wrong advice provided to decision-makers. In addition, in case of hostile intentions of aggressive actors on the international security stage, own assumptions can be used by the adversry with hostility, for producing surprise.

In the contemporary security environment, complexity aggravates the danger cast by assumptions, because the need to use assumptions is now much bigger, and their foundation is much weaker.

Regarding constraints considered as limitations of the actors' movement, the following comparisons and differences can be considered:

– Either subconscious or deliberate, assumptions pertain to the Actor operating with them;

– Constraints are limitations imposed from outside the Actor, by the effect of *interactions* of other Actors, or by the effect of objective environment factors (space, time, geographic or other constraints).

4. Assumptions in Decision-Making

It is worth adding that assumptions are used not only in analysis, but also later, in planning. They even make a critical part of decision-making and decision implementation. Decision in a complex environment is largely based on intuition, which represents a better use of the human brain creative potential. This contribution is crucial in complex situations, which overcome usual possibilities of applying mathematics and automatization in decision-making. Here, assumptions consolidate scenarios and provide confidence to those using them, albeit analysts or decision-makers.

In military, operational planning requests designing a decision support matrix, where explicit assumptions are stated[1]. Sometimes, these assumptions need to be consolidated, streamlined or even cleared up, and the planners draft critical

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information requirements meant to enlarge the known part of reality, to diminish the unknown areas, and therefore to strengthen the confidence in sound decisions.

5. Solutions for Controlling Assumptions

Obviously, a first responsibility pertaining to the analyst is *to become aware of the assumptions*, to identify and define the assumptions generated and instrumented by the analyst subconscious. This is important because the mental process includes assumptions about which the analyst is not automatically aware, there are exclusions of areas in the sorrounding reality caused by their substitution with analyst own cognitive constructions. This way, inside the analyst creative thinking chemestry, the unconscious assumptions, those operating on conclusions in absence of analyst awareness, need to be identified and processed to become conscious assumptions.

This goals can be achieved by identifying and defining the assumptions and biases beforehand, by describing the elements the analyst is considering in the framework of his analytic mechanism.

Also, the analyst must identify the factors generating, and favoring or cancelling assumptions. This enterprise is supported by creativity and curiosity, qualities defining the analyst necessary general attitude and conduct.

Treating assumptions is necessary, for example during the procedure of comparing competing hypotheses (*ACH - Analysis of Competing Hypotheses*). This operation should be performed by applying the requirement that considered hypotheses must be *collectively exhausting*, that is that considered hypotheses should exhaust, on the aggregate, absolutely all possible courses of action needed to be examined by the analyst. These working scenarios must be tested deeper, and monitored by using analytical *indicators*.

Bottom line, analysts must explore all courses of action, including those unpopular (where the analyst courage comes to play), or the unlikely scenarios – so called «black swans». In this later case, the analyst must identify and track the factors which can transfer the *black swans* towards higher probability scenarios.

Regarding delibetate assumptions, their usefulness is obvious considering the construction of courses of action by the analyst. For these scenarios, the analyst

builds analytical indicators which are included into the intelligence collection plans for detecting anomalies and producing warning.

To conclude, assumptions have a crucial role for accurate analyses. Processing subconscious assumptions to deliberate assumptions, then checking the deliberate assumptions is very important reduce or to avoid analysis errors and intelligence failures. In complex security environment, assumption processing is a prerequisite for professional analysis.