CHANGING THE INTELLIGENCE COMMUNITY CENTRE OF ANALYTICAL INTEREST

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The numerous and various challenges that have arisen in recent years in the so-called "knowledge society", where globalisation has played a key role in impacting the information environment, have led to a number of changes at theoretical, conceptual, cognitive and even behavioural level for experts activating in the intelligence field. Due to the growing dynamics of events, the value of information is now subject, more than ever, to an accelerated process of obsolescence, and the sources' level of credibility often risks to be ignored by the desire to ensure the beneficiary's fastest possible accessibility to information. As such, the knowledge-based analytical process model is more and more validated by the intelligence community, to the detriment of the information-based analytical process model used until recently.

Keywords: intelligence; analysis; knowledge; analytical model; fake news;

INTRODUCTION – THE TRANSITION TO EVIDENCE-BASED INTELLIGENCE

History will show us whether the recent reforms in intelligence services are evolving or revolutionary, but for now, the Information Community (IC) is responding to the changes imposed by the events of 11 September 2001, which overturned the entire analytical information scaffolding that existed until then. In particular, the analytical and collecting communities are trying to include in their work one of the pillars of the new legislation adopted post 9/11 – improving the exchange of information between services. As reforms occur, the collector and analyst need to adapt to new analytical rules and standards to incorporate more and more methodologies, techniques and alternatives into their analysis, under the coordination of managers and in collaboration with various national intelligence organisations. These new structures and guidelines are a real intellectual challenge, but also a bureaucratic maze for the collector and analyst, who struggle not only to *"produce"* information in a timely manner, but also to permanently improve their product, which is difficult for the intelligence professional who never has time on his side. This is why improving the mental resources of analysts is so important, and elements of understanding and sensory knowledge could propel the profession beyond the *"known analytical paradigm"* applied to complex problems, creating greater premises for the use of imagination in the IC.

Moreover, the *"infodemy"* that characterises the public information space, through intoxication with fake news, propaganda and manipulation, needs firm countermeasures, calibrated even on adapted and reinvented analytical models, designed to ensure public access to valuable and real information Voicu, 2020).

In this volatile and unpredictable context, in addition to cultivating individual discernment, creators of informational reports use more than contextual data and information. They use sets of evidence, data collections and structured information relevant to the problem to be analysed – in other words, contextualised to each specific problem. Evidence reveals alternative explanations through induced inferences, based on mental patterns about what will happen or what has already happened in the past[1].

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[1] Reasoning about past events remains easier than reasoning about the future. In the first case, the evidence may be contradictory, misleading and subject to several interpretations. However, it tends to be more complete and better organised (or at least discoverable). Looking to the future, we can say that much of the evidence does not yet exist. The events described by the ominous information may not have occurred. In addition, the information that should become evidence usually remains incomplete.

While inferences are usually uncertain, they justify beliefs about phenomena, processes, situations, and people. Their justification (or theories/hypotheses) is relevant to their accuracy, but does not guarantee the *"absolute truth"*. Rather, as Peter Kosso (2006, p. 4) observed, justification of beliefs means *"compliance with the standards of evidence and reason [to] indicate the [probability] of accuracy"*. This is where informational sensemaking comes into play, a superior component of analytical thinking, which is the type of predictive intuitive-heuristic thinking developed by the analyst (Stănescu, 2016, p. 94) in an attempt to establish *"a correlation between being more justified and being true"* (Ibid.).

For example, during a recent exercise, a team of analysts came to an inferential conclusion about a likely explanation for the phenomenon examined. Participants were presented with a set of previously established alternative conclusions and a set of relevant presumptive evidence and were asked to assess which conclusions were justified and true. After reaching an initial conclusion, they were asked to consider an alternative conclusion annulling the truthfulness of the first one. In doing so, they found that while the initial conclusion seemed more accurate, the second was in fact *"true"*. This was partly because they made biased assumptions about the evidence they used, to justify their findings. As Kosso (Ibid., p. 4) noted, *"better justification increases the likelihood of accuracy. But it is very possible that a well-justified belief is false"*.

This stage of work subsequently led to a more critical assessment of the evidence, many of which proved to be false. Participants found that *"justification comes gradually, but the truth is not"* (Ibid., p. 5). It is therefore arguable whether a greater evidentiary justification indicates the likelihood of a more accurate correlation with the truth. As Kosso pointed out, even with good justification, there is no certainty in establishing the truth. Therefore, according to the same author, *"it is the task of systematic disciplines ... to carefully refine the content of the justification, the evidence and the set of theoretical beliefs, to bring the justification in an increasingly close correlation with the truth"* (Ibid.).

If information is to *"speak truth to power"*[2], it must first be ensured that the message conveyed is solid and critically justified.

The realisation of the awareness process takes place gradually and serves the fulfilment of several objectives, including the description of facts, the explanation of phenomena, the interpretation of events and actions and the estimation of the

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[2] The phrase *"to speak truth to power"* was originally attributed to Sherman Kent. Subsequent research has invalidated this hypothesis. Regardless of the author, the semantic essence remains the same, and it is an urge for the specialists of the Information Community to correctly inform the decision-makers.

probability and impact of future actions of an enemy. As intelligence professionals move from describing events to explaining patterns of behaviour and understanding the underlying factors and intentions, there is a growing need to justify their beliefs about the problem under analysis.

However, as intelligence experts attempt to apply more rigorous scrutiny at this stage, they find that the level of ambiguity increases (Moore, 2011). In addition, analysts who apply conscious thinking are expected to be more often mistaken in the predictive stage than in the descriptive stage. This is partly due to an interesting reality characterised by Taleb: *"to predict the future we must already know the future"* (2007, p. 173). What Taleb claims is that you must have already visualised the future in order to estimate it.

Kosso (2006, p. 5), referring to epistemology, argues the following: *"[The] knowledge claims are more ambitious in that they stray further from what is immediately observed… The theoretical descriptions are based on observation and evidence… But it is important to note that the observations themselves are based on theory. Scientific evidence, after all, is neither haphazard nor uninterpreted, and some prior conceptual understanding of nature will inform decisions about what to observe, which observations are credible, what the observation means, and how what is observed is causally (and hence intentionally) linked to what is not observed. Theory is necessary to turn mindless sensations into meaningful evidence"*.

While Kosso uses a scientific language, his argument also applies to Manjoo's *"post-factual"* world, where information often tries to make sense[3]. The information is created, finally, by observing the phenomena, mediated by sensors. Moreover, the evidence in the field of information, although it may seem *"accidental"*, is the result of systematic search, collection and interpretation.

The past tells practitioners what information to look for in the future. This can be a trap when the indicators are no longer valid. As Baruch Fischoff (1982, p. 338) suggests, *"the search for wisdom in historical events presupposes an act of faith – a belief in the existence of recurring patterns waiting to be discovered"*.

However, although there may be general patterns, *"the past is never repeated in detail"* (Ibid., p. 336). In other words, there may be indicators that suggest that a future event, similar to the past, is possible, probable, or even reasonable. Based on such reasoning, we might anticipate, for example, that foreign terrorists will attack the United States of America again, targeting an important building, such as the

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[3] By *"post-factum"*, Manjoo refers to the tendency to ignore evidence, thus favoring preconceived conclusions. An example of this is the refusal of some parents to vaccinate their children, which is due to pseudo-scientific conclusions. Within IC, this trend is manifested when intelligence specialists allow their analytical efforts to be guided by certain predetermined conclusions, despite the evidence that seeks to identify new hypotheses.

World Trade Center[4], or a large-scale event (Mylroie, 1995). Undoubtedly, this was not a prediction of the 9/11 attacks, when Al Qaeda terrorists struck the Twin Towers and the Pentagon aboard planes over which they took control and crashed into buildings[5]. Finally, the problem-solving intelligence experts rely heavily on theories that, if not proven, are in fact unexamined hypotheses. If using the past to gain wisdom about what the future holds is not feasible, why not study the past to avoid certain mistakes? Another conclusion that emerges and has been largely evaluated by specialists is that the focus on misfortunes *"disproportionately increases their perceived frequency"* (Fischoff, p. 339; Tversky et al., 2003, pp. 207-232).

Another challenge that must be considered when analysing the past from the perspective of what should be avoided is the problem misunderstanding. While understanding may be possible, or even easier when dealing with normal issues, when it comes to wicked issues, such an understanding is at best evasive and depends on the methods chosen to solve them; in other words, regrettably incomplete.

With the intent of improving the creation of evidence-based information, recent US legislation that *"reshapes"* intelligence services goes so far as to require *"alternative analysis"* (US Congress, 2004, p. 330). IC, through its schools, interprets this in the sense that several hypotheses must be considered. The relevant legislation mentions *"the red team: a means by which another group of intelligence professionals launches alternative explanations for a problem that is being analysed"* (Ibid.). The legislation does not address the issue of criteria for achieving awareness in the case of analysing normal problems and especially wicked problems that arise as a result of conflicting intentions. If, for example, it is estimated that a particular country will develop both long-range missiles and a nuclear capability, so that, finally, we can analyse a possible combination of the two capabilities, we must take into account the context of the political and technological environment of the target country, what is a long-range missile, what is a nuclear weapon, what is a weapon of mass destruction and, last but not least, we must have sufficient availability to analyse a potential combination of all these threat elements. Political decision-makers can disapprove the actions of the target country, making their leaders more virulent. Thus, intelligence services and policy makers create the future – or, at least, a version of it. If all these aspects are analysed unprofessionally

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[4] On February 26, 1993, a trap truck placed by Islamic terrorists exploded under one of the World Trade Center buildings and apparently aimed to demolish both towers (Mylroie, 1995).

[5] However, the attacks had been anticipated. According to comments made by Schwartz and Randall, *Many people did predict the 9/11 attacks [2001]… Despite predictions, many US officials in the Clinton and Bush administrations focused on other elements, while the inevitable became imminent."* (Schwartz and Randall, 2007, p. 94).

or superficially, there is a risk of unintended and dangerous implications.

The final result is a mixture of hypotheses ready to be challenged point by point, although the tendency of information professionals is to create permanent uncertainties, which can prevent such a situation. If, on the contrary, the assessment is wrong, and the assessed nuclear capability for weapons production is in fact intended to provide an alternative to the nation's dependence on a declining supply of increasingly expensive oil supplies, and the missiles support a space programme designed to orbit telecommunications satellites that can meet the needs of the country and their neighbours, as well as to provide additional revenue to the state budget, then analysts and decision makers will have inappropriate extrapolated models, resulting from an incomprehensible present. In a tense bilateral or multilateral environment, rhetoric and actions can precipitate events so as to create a future in line with those patterned conclusions, causing the target country to produce weapons. In the end, each side blames the other nation's government for having "caused" the crisis.

There are several reasons for such faulty causal networks. Honest evidentiary considerations require a degree of agnosticism about the justification of theories. Evidence-based knowledge is not absolute; justified evidence changes theories and not the other way around. In other words, existing or accepted theories need to change only when interpretations of evidence lead to coherent alternative inferential conclusions. What should not happen is to reinterpret the evidence to support the prevailing pre-existing theory, as is the case in the example above. However, this is exactly what happens most often. People are often unwilling to give up on their precious positions.

This is partly due to the fact that, as they reflect on the evidence, they do not become involved. In other words, their opinions are influenced by different worldviews or cognitive approaches, especially selective perception and selective exposure. These elements combine to guide the way people perceive problems, the phenomena that make them up, and how they strive to make sense of them[6]. These influences or theoretical frameworks shape the patterns that people use to interpret new phenomena. The advantage is that these patterns make people smart and transform their thinking quickly, gradually evolving from patterns of behaviour to survival mechanisms (Gigerenzer, 1999). However, this advantage depends on the recurrence of the phenomena. In order to function successfully, an intuitive framework of understanding presupposes the appearance of at least

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[6] More information on *"heuristics"* and the mental patterns people use in their analytical reasoning is presented in papers such as those of Kahneman, Slovic, Tversky, Gilovich, Griffin.

a similar situation, a condition that is often missing in the analytical environment of intelligence. In an information-rich environment, based on technical collection, information specialists can select inappropriate models to use in understanding new phenomena. In intelligence work, if such models conspire to affect the search and selection of evidence used by analysts, selective perception and selective exposure do nothing but facilitate the occurrence of error and failure. Evidence always requires context and, as the example above illustrates, multiple meaningful explanatory contexts can coexist simultaneously. In intelligence, *"evidence is [particularly] rarely self-sufficient in information or credibility"* (Kosso, 2006, p. 8). In addition, the nature of the evidence itself, when viewed outside the political and social context, contributes to the failure to properly explore the issues.

In other words, unless the correct context is known, the evidence – if its constitutive information can even reach that threshold – is subject to many different interpretations. Outside the context, the person evaluating the evidence can select the correct interpretation. Multiple contexts confuse the situation, as different contexts often lead to alternative conclusions, as illustrated in the missile development scenario described above. Finally, the political context of the decision-maker may distort the actual context transmitted through the information.

What happens in the contextual consideration of evidence is a process of epistemological justification and, as Kosso (Ibid., p. 4) observes, the *"key concern is to distinguish knowledge, on the one hand, from mere belief, opinion, dogma, and wishful thinking, on the other"*. In relation to the information, knowledge depends on the contextual justification of the evidence and, as mentioned earlier, the *"business of epistemology is to show that there is a correlation between being more justified and being more likely to be true"* (Ibid.). Despite their inevitably greater inaccuracy, the predictions seem to arouse more interest from the beneficiaries than the explanations. In biology, to be useful, predictive assumptions require adaptation to valid background information. Does this also apply in intelligence? As illustrated in two national information estimates (NIEs) dealing with weapons of mass destruction (WMD) and which were later found to be wrong, incorrect predictions certainly drew special attention. In these cases, incorrect predictions probably resulted, in part, from analysts' lack of time to develop them. In the first case, the estimate of whether or not the Soviets would place strategic nuclear missiles in Cuba in 1962 was written within a week[7]. In the case of Saddam Hussein's

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[7] As it is well known, this is a hindsight analysis. Sherman Kent stated in 1964 that, retrospectively, the authors had sufficient time to assess the evidence. See Kent, 1964, pp. 1-18. Originally classified, this document has been declassified and republished in *Intelligence Studies*, (1992, pp. 111-119). Kent carefully analyses the reasons why the analysts' assessment was wrong and not revised. These reasons include the previous course of action of the Soviet foreign policy directorates, which were presumed to be resumed in the future. Thus, no offensive missiles were to be placed in Cuba.

WMD programmes, the preparation time was three weeks. Such short periods of time would seem to prevent the collection of new information and data that would become relevant to those issues (i.e. analysed as evidence), preventing the full exploration of alternative perspectives[8].

Lack of time characterises a context for achieving information sensemaking. This context in which information experts work and the constraints imposed on them facilitate their successes, but also their failures. As the examples above prove, information producers are often under pressure and fail to take into account massive amounts of data and information in a short time. The same professionals need to organise data and information into evidence, in order to understand and then explain to decision-makers and beneficiaries the complex issues associated with it. Finally, current and past intelligence practice focuses on prediction, rather than explanation, as the ultimate goal. This was not without criticism. Willmoore Kendall, in the revised edition of the book written by Kent in 1949 for World Politics, criticised Kent's *"compulsive preoccupation with prediction"* (Kendall, 1949, p. 549). Given the experience of Kent and others during World War II, it is not surprising that the desire to prevent another Pearl Harbor dominated their practices; such a desire would naturally have led to an activity organised around the creation of predictive knowledge that prevents surprise[9].

"NORMAL INTELLIGENCE" VS *"STRUCTURED INTELLIGENCE"*

The process described above can be considered *"normal intelligence"*. As Thomas Kuhn conceived it, the *"normal"* refers to *"the relatively routine work… within a paradigm, slowly accumulating detail in accord with established broad theory, not actually challenging or attempting to test the underlying assumptions of that theory"* (Normal Science). Thus, we can see that *"normal intelligence"* is an activity of expanding the knowledge in which most information professionals are engaged and which gradually increases the knowledge about the targeted phenomena (Kuhn, 1962, pp. 10-42). Professionals think and work within a model or *"paradigm"* of reality forged during World War II and consolidated throughout the ensuing Cold War.

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[8] The Senate report on Iraqi WMD noted that alternative scenarios had not been considered, although the same cannot be said of the aluminum pipeline that was allegedly intended for the production of centrifuges and rockets. Under such circumstance, it seems that the results were dictated by collective thinking. See US Senate Report on Information Assessments Prior to the Outbreak of the Iraq War, (2004, pp.18-21).

[9] Most likely, in the case of the WMD, the *"worst case scenario"* was taken into account, which partly explains the views on the nuclear programme developed by Iraq and the conclusions of the 2002 evaluation. The same cannot be said of the *"failures of the imagination"* due to which the attacks of 11 September 2001 could not be anticipated.

Past successes, as perceived at the time, contribute greatly to the repeated use of invalid art. The paradigm involves opponents at the level of actors, whether state or non-state, who have mutually destructive capabilities. In this context, *"normal information"* becomes *"information"*, as the *"normal science"* stated by Thomas Kuhn represents *"science"*.

In both areas, newly acquired knowledge is gradually being added to an increasingly defined paradigm; new knowledge does not easily redefine the paradigm. Even the extraordinary and truly new aspects are considered exclusively from the perspective of the unknown. Normal science or ordinary information does not seek to significantly revise the paradigm in which new phenomena are known and understood. This must also be seen in the light of the way in which newly hired intelligence staff work and take over existing databases. A common practice involves reviewing previous reports, with the tendency for new reports to remain within the conceptual limits of what has been previously developed. Knowledge grows only gradually. Intelligence analysts working in the mundane information paradigm try to describe, explain, or predict phenomena consistently. In this case, the term refers to another concept developed by Kuhn: A common framework for understanding phenomena is sought or assumed. New knowledge is understood in the context of the dominant paradigm.

For example, normal information from the second half of the twentieth century understood events according to the missions and objectives of American adversaries, mainly the former Soviet Union and to a lesser extent, China. World affairs were understood in the context of the hegemonic competition of the opposing USA states. Normal paradigms prevail until previously unobserved and unobservable discrepancies create sufficient inconsistencies in explaining and understanding the phenomena so as to cause errors that cannot be ignored. For Kuhn, this means a necessary change in scientists' perceptions of the realities of science. Kuhn illustrates this with an example of the transition from Ptolemaic to Copernican astronomy. Before they appeared, the sun and the moon were planets, but the earth was not. After that, the Earth was a planet, like Mars and Jupiter; the sun was a star, and the moon was a new body type, a satellite. Changes of this kind were not just corrections of the individual mistakes included in the Ptolemaic system. They involved not only changes in the laws of nature, but also changes in the criteria by which some terms of these laws were attributed to nature. In addition, these criteria were partly dependent on the theory that validated them (Kuhn, 1970, Conant, 2000, p. 15).

In physics, the phenomena themselves do not change (although recently observed phenomena might make them look like this). In the cultural environment of human interaction, new perceptions of reality may be sufficient to force a reconsideration of the old. In social scientific terms, a new paradigm not only explains the new, but does better in explaining the old. Moreover, even the language previously used to describe a phenomenon is inappropriate because, as Kuhn (Ibid., p. 15) remarks, *"scientific development cannot be quite cumulative. One cannot get from the old to the new simply by an addition to what was already known"*. Failure to analyse discrepancies causes potential information creators to maintain a misunderstanding of phenomena, even if the phenomena change. This major discrepancy leads to either errors or information failures. According to Kent's paradigm, information errors derive from *"factual inaccuracies in analysis resulting from poor or missing data"* (Johnston, 2005, p. 6).

On the contrary, as noted, information failures refer to *"systemic organisational surprise resulting from incorrect, missing, discarded, or inadequate hypotheses"* (Ibid., p. 6). The previous concept was that if more data were available or better understood, errors could be prevented. In the latter, intelligence practitioners or their political clients misunderstood both the issue and its context. The existence of certain information errors does not necessarily indicate a changed paradigm. However, repeated information errors do. As in the case of science, small errors in the proper characterisation of phenomena lead to the emergence of *"corrective constants"*. It is possible that the person giving the information made a mistake in perception or interpretation. However, left unchecked, errors eventually combine to cause systemic failures.

Information practitioners and policy makers can repeatedly draw erroneous conclusions from the misinterpretation of meaning, defined by Rob Johnston as *"systemic organisational surprise"* (Ibid., p. 6), resulting from a mixture of practitioners' gaps and the disinterest of policy makers. A more appropriate interpretation would be that the failure of information stems from shortcomings on the part of both policy makers and information professionals in recognising a fundamental and revolutionary change in the information context.

The state-as-adversary paradigm for information creation is obsolete. Two decades now separate the interpretable information context from that

of the Cold War: adversaries and problems are now strikingly different[10]. The power of the Soviet Union declined dramatically after 1990, while China rose. But more importantly, in an informative context, new non-state-based phenomena have emerged: non-state actors have added new challenges, threatening traditional state structures. Emerging phenomena, such as epidemics, pandemics and climate change, have imposed new complexities. The anomalies created as a result of these new phenomena illustrate how and why normal information is no longer adequate: it can no longer characterise these phenomena in terms of threat and strategic information opportunities. The *"normal"* means of explaining the error are also inadequate. As evidenced by the various reports of the US Congress and the independent committees, the information no longer adequately describes, explains or predicts the phenomena that beneficiaries need to understand. Thus, the change in information needs to be profound and revolutionary.

CHANGING THE CENTRE OF ANALYTICAL INTEREST

Revolutions in military science, politics and military affairs are taking place because crises reveal the inadequacy of the current dominant paradigm. As Kuhn (2000, p. 92) also pointed out, an existing paradigm can *"cease to function adequately in the exploration of an aspect of nature to which the paradigm itself [has] previously led the way"*. Kuhn further argues that science is not evolving smoothly. Rather, periodic revolutions change the way phenomena are perceived and understood (Ibid. pp. 92-110). Crises anticipate such changes in the centre of analytical interest. Similarly, the serious (official) failures of the intelligence community in predicting the 9/11 attacks and Saddam Hussein's WMD programmes (both in 1990 and before the 2003 invasion of Iraq) are examples of crises that have generated a systemic reform[11].

If we analyse these failures through their official evaluations, we find the recurring appearance of certain terms: mentalities, politicisation and faulty analysis. During the same period, there are repeated attempts to impose methods

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[10] It should be noted that traditional opponents of the Cold War continue to pose threats. We can also say that emerging threats simply add to traditional ones. The dangers of the 21st century are complex, a major danger being their complexity.

[11] The argument that these were crises that led to a complete reset is based on the fact that, over time, it has been observed that the intelligence specialists have been as shocked by the inaccuracy of their estimates as the decision makers. In the case of the 2000 estimates of WMD held by Iraq, the CIA underestimated their level, leading to the idea that the 2002 overestimation was a compensation for the error previously made. While acknowledging the minimisation of the danger in the initial reports, the CIA rejects the idea that the 2002 estimates exaggerated the situation on the ground in order to correct the errors produced. See the press release of the Central Intelligence Agency, *"Iraq's WMD Programs: Culling Hard Facts from Soft Myths"*.

of *"[social] scientific study…to analysis of complex ongoing situations and estimates of likely future events"* (Davis, 1999, ch. XV). What is missing is any systematic approach in the intelligence community. As specialist and observer Jack Davis remarked a decade ago, there are no corporate standards for how information is created, including the methods used (Ibid., ch. XXV). Although sound practice does not validate the correctness of information assessments, its absence, by definition, leads to erroneous conclusions. Contributing to this scenario is the fact that, as Aris Pappas and James Simon (2002) observed, *"[potential] opponents [are] often… driven by emotional agendas that [make] them unpredictable"*. While effective practice may not lead to solid estimates from ambiguous evidence, it would alert regular practitioners to the prospect that the actions of the same adversaries are unpredictable or, at best, only partially predictable for certain behaviours. In short, intelligence experts around the world operate in an environment similar to a booming Kuhnian revolution: the epistemology of normal intelligence is insufficient and new knowledge is needed. Recent failures highlight the need for change, as does the grey area of workforce that creates information sensitivity – new people facing new and emerging problems should feel comfortable when they identify new ways to systematise their work. Changing data and contexts can cause real storms in the minds of ordinary analysts to operate with normal information, and it could be concluded that, for practitioners accustomed to operating with normal information, a real Kuhnian-style revolution is underway.

However, a clarification needs to be made: not all information practices of *"the old school"* are worthless at present. Several significant opponents at the state level remain threats to the security of the American nation, although they are also challenged by the new non-state actors and the problems that populate the new information paradigm. Moreover, in many circumstances and in dealing with certain problems, the tacit expertise of professionals with long experience in the work of intelligence services is adequately exploited to identify the *"hidden"* meanings. These *"old hands"* possess both current knowledge and a highly evolved set of skills. Years of creative and critical thinking prove that they know how to look at issues from a variety of perspectives and have the wisdom of a deep context. As a result, it is no coincidence that in the relatively recent (2008) book, written by Roger George and James Bruce, *Analyzing Intelligence*, very experienced specialists from the intelligence services contributed. First of all, it must be said that challenges are knowledge-generating, and the expertise gained from challenges becomes valuable and necessary; secondly, it is up to each intelligence service to develop

and maintain the cognitive and organisational flexibility that human resources entail with such thinking. Indeed, part of successful and revolutionary intelligence work involves gathering new meanings from old patterns that have remained hidden from those who have stopped making sense. One challenge is that *"fresh"* eyes lack knowledge of potentially relevant patterns, while *"old"* eyes cannot see things as new. Each lacks the power of the other. The experience gained by newer professionals engaging in the traditional practice of *"analysis"* affects their once fresh views even when they begin to gain relevant and necessary experience. One solution could be to adopt a core competency model (including here curiosity, perseverance and pattern recognition) based on job descriptions and mission specifications of the existing intelligence services.

A first necessary step in a process of fundamental change of the intelligence activity is the in-depth analysis of what they do, they must do and how the information professionals act. Basically, intelligence practitioners create knowledge to support their beneficiaries. In other words, intelligence practitioners are supposed to be contributors to government plans and policies at various levels where they have the opportunity to share broad strategic perspectives with national leaders, as well as to ensure that military personnel deployed in theatres of operations have access to levers for technical collection and organisation of tactical data. Last but not least, it must be remembered that this Intelligence Knowledge, together with Activity and Organisation, represents only a key component in a strategic, operational and tactical intelligence trinomial (Moore, 2005)[12]. Undoubtedly, the Activity and the Organisation also need to be reshaped, but what is absolutely fascinating in the analytical process is the Intelligence Knowledge and how it is created – in short, the sensemaking.

CURRENT ANALYTICAL MODELS

The *"information-centric"* model proved to be just as different from the *"analysis-centric"* (knowledge-based) model largely used in the United States. The information-centric model places both real and abstract value on information, not knowledge, as the main currency of information activity – having profound effects.

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[12] In his work *Strategic Intelligence*, Kent identified and stated three concepts that define strategic-level information: Knowledge or what is produced and disseminated; The Activity or the way in which knowledge is produced and disseminated; and The Organisation or the way in which people are grouped to produce and disseminate that knowledge. Moore and Krizan, in the work *Core Competencies*, claimed that this approach belonged to them, and they resumed the concept with David T. Moore in the work *Evaluating Intelligence: A Competency-Based Approach*, International Journal of Intelligence and Counter Intelligence, vol. 18, no. 2, 2005.

The book by Mark M. Lowenthal, *Intelligence: From Secrets to Policy*, now in its 7th edition, is rightly recommended as a mandatory reading for those beginning their careers in the intelligence field. This paper defines, succinctly and practically, an intelligence process that places analysis in a key position for communicating the results of information activity in the political narrative presented to decision-makers. At the strategic level, analytical products such as the President's Daily Brief or National Intelligence Estimates (NIEs) are analytical products that address the priority security issues of the United States – a kind of comprehensive picture of the latest developments in the areas of interest. At the operational level, products such as Dynamic Threat Assessments and Military Capability Studies inform military leaders about the complexities of the environment in which they may be required to engage the armed forces.

In both cases, the analysis plays a central role as the main provider of knowledge to intelligence services in the policy-making process. Decision-makers consume a constant diet of analysis and provide guidance on the direction of further information. This process can be called *"analysis-centric"* in order to compare it with how much of the world conceptualises and uses information. The analysis-centric model is usually defined as an *"intelligence cycle"* or *"intelligence process"* that characterises the interaction of functionality within intelligence services, including planning and targeting, dissemination, analysis, production, processing, and operation, with researchers such as Lowenthal that adds consumption and evaluation as distinctly identifiable additional functions.

Intelligence services provide guidance only when policy makers consider that the issues of national security interest identified can only be addressed through the substantial analytical expertise of intelligence services; these policy guidelines often appear in the form of priorities for the use of intelligence resources.

While the development of knowledge is important, the goal is to develop predictive knowledge that allows decision-makers to anticipate events, thus gaining a competitive benefit. Analysts are trained and specialised in "data mining", building complex arguments, overcoming and eliminating inherent, often subconscious biases, and assigning confidence levels to their own assessments. Analysts are also trained to articulate what information is needed in the information environment to progress from common knowledge to predictive knowledge.

Each unique intelligence discipline, HUMINT, SIGINT, IMINT and so on, has a defined collection methodology, designed to focus on the empirical objectivity of information and its effective transmission to analysts who have all the sources,

in a way that allows the perfect integration of their role in the development of knowledge.

Each report resulting from the multi-INT collection requires evaluation by an analysis specialist who, in turn, informs the collector whether the information was timely and relevant for promoting the analytical report. In particular, in the case of HUMINT, analysts themselves become *"independent"* and objective intelligence consumers. This method of using analysis to assign value to the employment of collection activities is in stark contrast to the intelligence-centric model.

The intelligence-centric analysis model presents the collection of information, and not its analysis, as a primary and sustained function of the intelligence process. The effects of this type of analytical model have an impact on the definition of where the abstract value resides, how resources are used, and how expectations will be used to support information decision-making.

Knowledge development, insofar as it exists, lies in the individuals who produce or process the reports, and not as a distinct institutional mechanism.

In the intelligence-centric model, individuals, not institutions, have absolute power. This phenomenon makes it difficult to monitor or evaluate the efficiency of intelligence services by the state, and the knowledge acquired by the agencies to survive the changes that take place at the level of political leadership. Because evaluations are invariably related to individuals in leadership positions and the personal interpretation of what information means, any criticism of evaluations is personal, rather than a test of an organisation's reasoning that invariably becomes a direct challenge to authority. Because they do not have a framework in which to present contradictory assessments, decision-makers are somehow forced to continue to rely almost blindly on intelligence specialists.

The two analysis models presented are undoubtedly useful and have proven their effectiveness over time. Some would say that the intelligence-centric model would be more successfully applied to tactical and operational intelligence, while for strategic-level intelligence, the knowledge-centric model is more recommended. A clear conclusion in this regard could only be drawn from the validation, accreditation and long-term use of the two models on the aforementioned intelligence dimensions.

CONCLUSIONS

Under the circumstances of the inability to assimilate the complexity of reality or to detect in the multitude of fake news existing in the media, individuals resort to the construction of simplified mental models of the objective world, to which they superimpose the information received later, without always having a compatibility between informational input and one's own pattern of thinking.

For the current intelligence analyst, all these challenges can cause cognitive errors, with a direct impact on the information products developed.

The psychological, cultural or religious limitations that can influence both the analyst and, implicitly, the finished product developed by him, must be mitigated by applying viable analytical methods, suitable for the current security environment and usable as functional tools, based on which to develop information designed to meet the customers' needs.

Whether we are talking about analytical models based on information or knowledge, or we are talking about sensemaking, the methods chosen by analysts and, implicitly, by the intelligence community must provide them with a means of disambiguating the mysteries and difficult puzzles they have to cope with daily. Even in current practice, analysts use complex approaches when they cannot rely on a single method of acquiring meaning. While the results of different methods may be convergent, reinforcing a special understanding of a phenomenon, they may also be divergent and produce different interpretations. It is up to the intelligence practitioners to resolve all these differences and strive to make sense out of them.

For example, intelligence experts, who engage in a *"multiframe"* sensory approach, analyse and evaluate issues from several perspectives created at the confluence of action and process-focused views, or individual views versus collective views.

Whatever the methods approached, the Intelligence Community must function as a unique system capable of creating a unified picture of events and problems, based on multi-source information.

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