Jointness in Intelligence Organizations: Theory Put into Practice

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Jointness—a concept popular in recent decades in military, intelligence, and civilian systems—represents a change in the way organizations function in a complex and challenging environment, which is characterized by a networked structure, or multiple connections among various entities. The most striking difference between cooperation and jointness is the process of fusion, which is typical of jointness. While cooperation preserves distinct organizational settings, authority, and areas of responsibility, in jointness we see new organizational formats, which represent a synergy that is greater than the sum of all the existing capabilities.

This essay focuses on jointness in intelligence. New ways of thinking over the past years have led to the breakdown of the compartmentalizing of intelligence organizations and have given rise to models of jointness within intelligence organizations, military forces, and civilian entities so that they can carry out complex missions. This essay surveys the theoretical and practical development of the concept of jointness and presents four archetypes of jointness, based on several Israeli and American case histories. These case histories indicate that jointness has not always been applied accurately. The success of jointness depends upon several essential components that may be defined as its ecology. The most prominent is organizational freedom, which provides the space where it is possible and, indeed, recommended to provide autonomy to

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various working echelons; this autonomy allows for flexibility and creativity even if it deviates from familiar modes of action.

Keywords: jointness, the intelligence community, intel, learning processes

Introduction

The concept of jointness, popular in recent decades in military, intelligence, and civilian systems, represents a change in the way organizations operate in a complex and challenging environment. This environment is characterized by a networked structure, that is, multiple connections among entities. Jointness is distinguished from cooperation by the process of fusion. While cooperation preserves distinct organizational settings, authority, and areas of responsibility, in contrast, the process of fusion in jointness creates new organizational formats and synergy that is greater than the sum of all the existing capabilities. Generally speaking, organizations shy away from jointness; yet in a reality characterized by crises and competition, in which organizations find themselves threatened and vulnerable to fail, their inability to produce an effective response to the threats and challenges ultimately strengthens their willingness to engage in jointness.

This essay focuses on jointness in intelligence, having developed as new approaches collapsed the boundaries and separation between intelligence organizations, which—alongside historical rivalries over prestige and competitiveness—had been the hallmark of their relations in the past. These new approaches have also led to the development of models of jointness between intelligence organizations and the military, so that they can carry out complex missions, and also between organizations in the civilian sector. This essay addresses the concept of jointness and seeks to answer the following questions: What is jointness and what led to the need for it? What are the interrelations between the features of jointness? What are the conditions for and obstacles to realizing jointness? How is jointness manifested in the intelligence community, and what are the various jointness models in this world? Examining jointness in its broader context, the essay surveys its development by the American security establishment, its penetration of the civilian corporate world, and its rebound effect on the military and intelligence community. Highlighting the positions of several prominent

researchers on the concept, the essay will seek to expand upon the existing theoretical debate about jointness. Finally, the essay describes and analyzes various models of jointness in the intelligence community—specifically in contexts requiring the use of force—especially in the United States and, in a more limited way, in Israel, in an effort to understand if jointness in the intelligence community is distinctive.

The Development of the Concept of Jointness

The Military

The idea of jointness developed in the American defense establishment in the late 1970s.[1] In the 1980s, the term "jointness" was coined to describe actions, operations, and organizations in which entities belonging to two or more branches of the armed forces took part.[2] Until the 1980s, the command structure of the US military forces was split among five branches, each completely independent in terms of developing doctrine, manpower, and equipment. Battles over budgets took place among the branches, often leading to irrational financial allocations based on size of a particular branch and also to an increase in the overall defense spending.[3] If one branch experienced a problem of resources, it would prefer to handle it by lobbying Congress rather than by cooperating and using existing resources already developed in a different branch.[4]

In 1986, the Goldwater-Nichols Department of Defense Reorganization Act was passed to resolve the difficulties described above.[5] The act brought sweeping changes to the command structure of the US military by strengthening the concept of jointness; the authority and responsibility for force construction was transferred from the branch commanders to the joint chiefs of staff, and geographical commands and the Special Forces command were established. In 1991, the first US military doctrine referring in a detailed and comprehensive manner to jointness was issued, in conjunction with the implementation of the Goldwater-Nichols Act.[6] The doctrine set out guidelines for the armed forces on applying jointness in a variety of ways in order to attain optimal effectiveness.[7] The publication and implementation of the doctrine led to the establishment of several research centers, which developed joint strategies, battle plans, and training. The first war in Iraq, however, highlighted the deficiencies of jointness among the various forces, revealing the gaps between the written doctrines that stressed separate activity and the interfaces that

required a high degree of jointness and, as a result, catalyzed the development of cooperative doctrines that promoted the jointness approach. [8]

The Civilian Sphere

Several years after the development of jointness in the American military, the concept gained acceptance within the civilian and corporate spheres. Changes in management and information technologies led to the development of important theories and applications. The cyberspace revolution enabled businesses to harness advanced computer applications for their needs, speed up processing methods, cut costs, and make information and knowledge accessible to all. At the same time, the acceleration of R&D processes and trade and cooperation among organizations and nations contributed to the declining status of the large business outfits, which were managed in a traditional, hierarchical, and centralized fashion and to the increasing prestige of the more agile and dynamic businesses, characterized by small staffs and independent divisions that manage networks of relationships. The traditional structure typical of organizations for most of the twentieth century gradually made way for a flatter, more decentralized, networked and dynamic model, stressing its many intersecting relations.[9]

The most successful companies were the most cooperative ones; a growing segment of business activity around the world is now carried out cooperatively within an organization, as well as between organizations. Processes of manufacturing and development in many industries (technology, marketing, biomedicine, and more) have become increasingly complex, making a lone organization's attempt to handle these processes independently virtually impossible. For example, the development of information systems at present cannot be carried out as an independent process. Competing companies prefer to incorporate external services in their products instead of engaging in independent development, which would require them to meet constantly changing standards.[10]

Developments in the Theory of Jointness

Zvi Lanir, who worked on developing the notion of jointness in military organizations, defined it as "creating a new systemic capability based on the fusion of the unique assets of the different entities and evincing a deeper connection than coordination or cooperation."[11] Lanir classifies

joint activities in a hierarchic manner according to the quality and depth of systemic influence that they achieve within the military context. According to Lanir, it is necessary to distinguish between the terms "coordination," "cooperation," and "jointness," where each interface characterizes a different level of relationship between entities. Lanir defines "coordination" as "a level of interface allowing [organizations] to attain systemic **efficiency** by a standardization of process," such as coordination of time, location, and intensity between a pinning force and a strike force during battle. Lanir ranks cooperation one rung above coordination. He argues that in order to attain systemic effectiveness (relevance), it is not enough to engage in coordinated systemic thinking. While it allows forces to act efficiently, it does not guarantee the desired effect vis-à-vis the enemy. Every campaign has its own unique features, and every enemy requires unique systemic understanding. "Cooperative systemic thinking" represents the interface of cooperation during which the rationale of the opponent's system is conceptualized.

Lanir places jointness above both coordination and cooperation.[12] Lanir explains that the objective of jointness is to ensure that the systemic effectiveness will continue even under changing circumstances; the relevance of a system can be maintained only if the system is dynamic, and if all the echelons of the different entities are involved in developing knowledge. The new knowledge is created in the encounter between the different entities and results in ongoing organizational transformation. The knowledge is created in the "no-man's cognitive zone," the vacuous space outside of the domain that a single entity can encompass cognitively and exclusively. Lanir refers to the knowledge created in this zone as "joint systemic thinking."[13]

Efron Razi and Pinhas Yehezkeli favor the terms "inter-system cooperation" and "cooperative activity."[14] They claim that jointness is an expression of a degree of organizational freedom that creates a space where it is possible—even recommended—to deviate from familiar procedures, regulations, and operational patterns. This freedom is crucial because in a dynamic, rapidly changing environment, every organization must quickly develop and acquire knowledge. Their claim is that a significant amount of knowledge is created in the interstices between organizations as a result of their interrelations; in order to access this knowledge and develop it, organizations must cooperate with one another.[15] Knowledge may be created in any one of the organization's

echelons; a good flow of information enables the organization to construct processes from the bottom-up rather than being the result of centralized planning from the top-down.

The ideas described above currently shape the perception of jointness in both the US military and the Israel Defense Forces (IDF), and constitute a central component of their approaches. This is particularly true of the US army, which since the early 1990s, has perceived jointness as fundamental to its strategy,[16] while distinguishing between the concept's dimensions and its implementation.[17] Similarly, the IDF distinguishes between jointness as an action or a process resulting from an action and jointness as a concept and as part of organizational culture.[18]

The Dimensions and Stages of Jointness

Jointness is fundamentally a process of continuous learning, and has two major dimensions: the cognitive and the organizational. Jointness takes place in three stages: design, planning, and implementation.[19] The literature tends to distinguish between two main types of learning: causal learning, occurring when new information leads to a change in means and methods; and diagnostic learning, which stems from understanding the tension between values and concepts and results in changes both in the objectives as well as the means of attaining them. Causal learning may also be defined as tactical learning, characterized by adapting and adjusting, whereas diagnostic learning can also be defined as strategic learning, which at its core is a restructured view of reality. In cognitive terms, tactical learning can be seen as an update of existing cognitive structures, resulting in adaptation and adjustment, and strategic learning can be perceived as a change in cognitive structures and their expansion, leading to a change in attitudes and beliefs.[20]

At the basis of the strategic learning process is the concept of "design" as an abstract cognitive process in which the conceptual framework is formulated. At the design stage, existing paradigms are challenged, updated or replaced, and a new vision is formed. The design stage rests on a vision that relates to answering the question, "What do we want to design?" It relates to making decisions and setting a general direction that provides meaning to the process. The vision is seemingly disconnected from the material or practical terrain, which is limited to a fixed total of resources,

and it challenges the organization to think about solutions that transcend these limitations.

Cognition is both a stage of jointness as well as an output (such as organizational understanding) within a wide-reaching organizational process. It is also an outcome of cognitive jointness, in the sense of jointness at the stage of formulating and designing a concept, such as cognitive structuring to interpret reality. Therefore, it would be correct to conceptualize cognition as "cognitive jointness." Cognitive jointness is manifested by joint interfaces and shared thought processes among directors of organizations, who analyze and rethink the challenges that their organizations face and also define shared values. This encounter between organizations abuts upon the inter-organizational space, allowing for the creation of new knowledge in the areas outside the organizational zones of thought (the so-called "no-man's cognitive zones"). Cognition at the design stage occurs by means of diagnostic-strategic learning processes and consists of challenging existing paradigms, bringing them up to date, or replacing them.

In contrast to cognitive jointness, organizational jointness is manifested by shared interfaces and cooperative work among organizations. It includes shared organizational structures, working processes, and the organizational climate ("ecology"), which allow several organizations or frameworks to operate in a synchronized manner and maximize their capabilities—creating a whole that is greater than the sum of its parts—and concurrently helping to promote shared objectives. Organizational jointness is also needed for force building in terms of training personnel and creating organizational infrastructures that efficiently maximize resources and capabilities as a fixed and systematic method for confronting complex challenges. Organizational jointness is expressed more prominently at the planning stage within already existing paradigms that were conceptualized during the design stage. Learning at this stage is simple rather than complex, and it consists of incorporating new information into existing patterns of thinking.

Organizational jointness enables organizations to identify the changes needed within the organizations themselves. These changes may lead to the establishment, dismantling or merger of organizational structures, new job definitions, or new professional ways of looking at things, which may affect the work of existing position holders, as well as defining the components needed to create a joint ecology. Organizational jointness should also include

the implementation stage, which is formulated during the planning stage. The implementation stage is essential to organizational jointness as it is a real test of the organizations in dealing with challenges. During the final stage, the learning process is simple learning, and consists of adapting plans, means, or organizational aspects due to an expected challenge and on the basis of an existing paradigm or concept.

Diagram 1 below describes the dimensions of jointness (cognitive and organizational) as they are manifested at each of the different stages (design, planning, and implementation), while relating to the process of learning at each stage. Cognitive jointness is realized at the design stage, whereas organizational jointness is required throughout all of the stages.
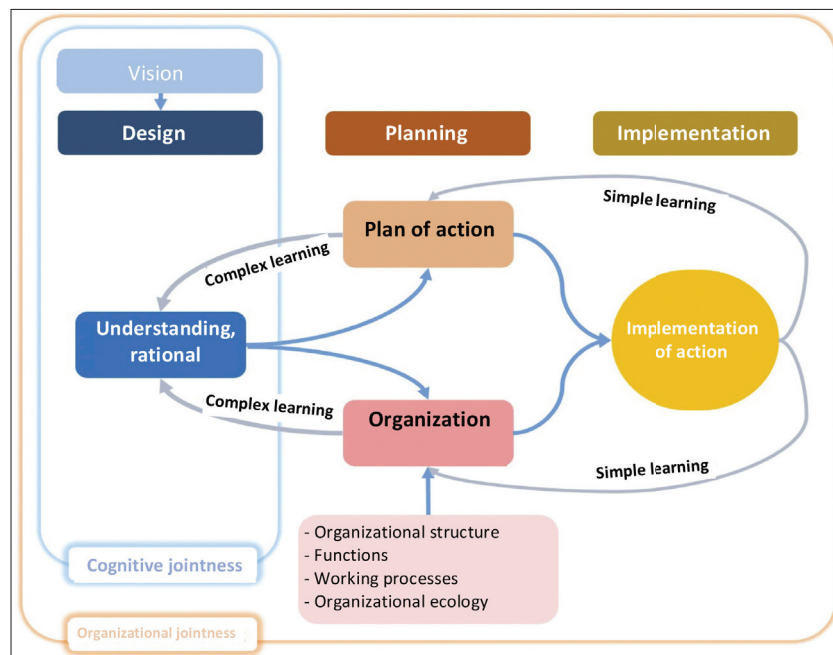

Diagram 1: Jointness as a Learning Process—Dimensions and Stages

As Diagram 1 demonstrates, each stage of jointness generates processes of learning, which allow the realization of the next stage. The final stage of jointness—implementation—is the stage where we can expect to encounter all the problems and challenges. During the final stage, the process of simple learning leads to changing plans, means, or organizational aspects, while

the process of complex learning is needed for much greater problems or challenges, and enables the broader conceptual framework to be reexamined.

Transition from Crisis to the Relevance and Importance of the Organizational Ecology

Jointness may be framed as a process that begins with a crisis; progresses into a conceptual, organizational, and operational development; and leads to improving the organization's relevance in facing problems and challenges in its field. The success of the process also depends on the organization's ecology and environment.

First Stage: Crisis

Crises are the factor that generate organizational processes allowing for the development of jointness as a concept and method of action. The literature defines a crisis as a situation in which a change appears as the result of a sudden event, a sharp change in trend, direction or time. In such a case, an organization needs to reassess the situation; in other words, it needs to reconsider the threats, values, and objectives of the players involved. The change may lie in the internal or external environment, and the threat may be aimed at the organization's highly prioritized objectives or at its basic values.[21] At the beginning of the crisis, the organization manifests a kind of "strategic helplessness," expressing the gap between the organization's relevance and the environment's challenges; that is, the organization expresses its inability to cope with new problems and formulate responses to challenges, given the organization's existing understanding, resources, and capabilities.[22]

Second Stage: Systemic Learning

After recognizing a crisis or the desire to avoid an impending crisis, the organization needs to undertake complex learning processes in order to form the conceptual framework so that it can address the crisis; simple learning processes, designed to allow organizations to adjust action methods based on its present knowledge, are insufficient. When several parties from a number of organizations jointly carry out thinking and learning processes, they realize that the bases of knowledge and paradigms of each organization are insufficient to develop significant insights; this realization can be defined as cognitive jointness. The complex learning process reexamines

the organization, its objectives, the impact it seeks, and the environment in which it operates. One possible means of resolving the ongoing crisis is through organizational jointness, although it is not the only means. In order to promote jointness as a solution, the organizations must recognize jointness as having the potential to provide a mutual reward that is greater than the one produced by separate, individual actions.

Third Stage: Organizational Processes and Ecology
The success of the processes and plan of action that are based on new insights and knowledge are affected by various conditions of the organizational and inter-organizational ecology, including working norms, organizational dynamics, trust among the players, and the extent of autonomy given to the various echelons. Although the incubation processes of the organizational ecology can begin from the bottom-up, its completion and institutionalization must take place from the top-down. Without the support, encouragement, and permission of the organization's management, it is impossible to reshape an organization's ecology.

Jointness is feasible only when the information flows freely between and within organizations. Therefore, the management must provide staff with the autonomy to develop joint interfaces and allow the flow of open and free information in the inter-organizational space. The sides participating in the joint interface will be willing to take risks if they expect positive behavior from the other participants; trust is a function of expectation and of the willingness to take risk.[23] In a situation in which the sides do not have any shared history, they will have no idea what to expect of the other party, and the starting point for their relationship will be neutral. Such a situation requires the gradual building of trust by means of empowering and rewarding positive behaviors.
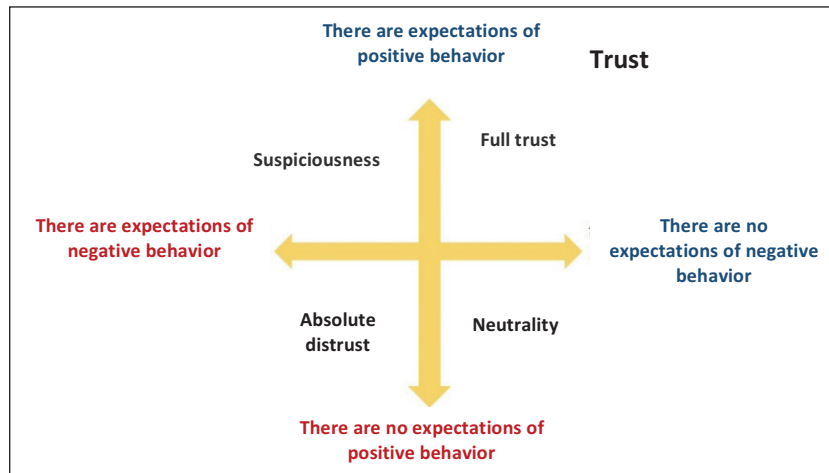
Diagram 2: Trust as a Function of Expectations[24]

Jointness requires working norms and a supportive environment for information sharing, relationship development, and shared processes in which several parties divide the burden of work. The extent of autonomy among employees operating on behalf of an organization in a shared setting affects their awareness of jointness; experience proves that when employees enjoy autonomy it is easier to work together and to build a working environment of mutual trust.[25] In addition, jointness requires that organizations to some extent forgo their original identity and create a new professional identity oriented toward the shared mission. Therefore, in addition to the advantages of being part of a networked association when facing challenges, the new network should avoid alienating individuals from their mother organizations, which employ them and provide them with training, advancement, and professional identities.
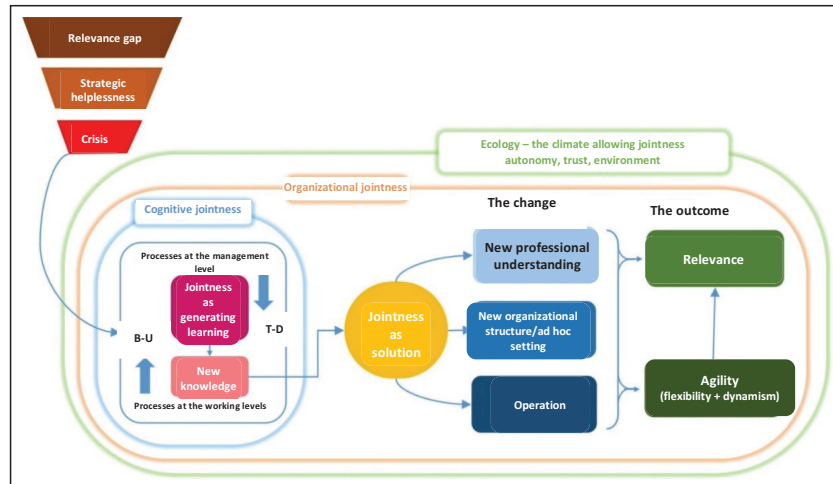
Diagram 3: The Jointness Process—From Crisis to Relevance

Jointness in Intelligence Organizations

The development of jointness in intelligence organizations was influenced by similar processes taking place in the military and the business world, as well as by technological transformations and accompanying changes in intelligence. For example, Itai Brun, who served as the head of the research division in Israel's Military Intelligence Directorate, describes these changes as follows: "In this day and age, the centrality of information technology is striking . . . In such a world, one can gather intelligence of a quantity and quality impossible to gather in the past, then analyze and process it in time constants that were equally impossible . . . The new world is brimming over with information, leading to competition with other information and knowledge providers and revealing weaknesses."[26]

Changes in the technological environment and intelligence challenges have transformed the nature of intelligence work and the outputs now expected. Intelligence organizations must now surveil disappearing targets and incriminate them, and follow processes that lack prior planning or even a clear aim as defined by decision makers.[27] Similarly, the intelligence community is expected to handle incidents in a shorter amount of time (for example, as a result of the use high-trajectory weapons, which do not require any special preparation), while the information revolution has compelled

intelligence personnel to handle a much greater volume of information and knowledge than it did in the past.[28] According to a senior member of the Israeli intelligence community speaking in a closed forum, the Israeli intelligence community has undergone a change of consciousness. In this context, the intelligence community has integrated several organizations together; it has recognized that barriers between intelligence gathering and research should be broken down and has created joint intelligence spheres, allowing accessibility to every partner on a needs basis.

Generating Jointness in Intelligence: Information Systems Management Frameworks

Frameworks for managing the intelligence community help to promote jointness by means of synchronizing the various community member organizations. These organizations compete with one another for resources and prestige, often resulting in duplication and redundancy that is liable to damage their potential contribution to the community.[29] An overall supervising body could promote jointness in both the cognitive and the organizational fields. This body could operate in a top-down process to create standards, including working norms, and could oversee the establishment of shared, mission-driven frameworks that would allow several parties to work together.

The Office of the Director of National Intelligence (DNI), established in response to the commissions of inquiry in the aftermath of 9/11, manages the US intelligence community. Until then, the Central Intelligence Agency (CIA) had been in charge of the intelligence community. The new body was given the authority to formulate the intelligence policy of the United States, direct the intelligence program and its budget, make recommendations for senior appointments in the intelligence agencies, and establish joint intelligence service teams. The DNI advances programs to increase jointness among the US intelligence bodies and promotes standards to ensure synchronicity among them. For example, the DNI promoted jointness in its "500 Day Plan: Integration and Collaboration" from 2007. The plan's stated objective was to strengthen the principles of jointness within the American intelligence community in several ways.[30] The plan was written as part of implementing the American national intelligence strategy; it presents jointness and system integration as key organizational objectives and is updated every few years.[31] It defines jointness as a multiplier force that is essential to the functioning of

all realms of intelligence activity (information technology, language, analysis, assessment, and more). The plan discusses the creation of community-wide standards for disseminating information and documents, information security, and accessibility to sources, while it also proposes the construction of a shared, uniform interface for extracting and working with pieces of information.

Another principle that the DNI promotes, also mentioned in US intelligence strategy publications, is "mission-driven intelligence workforces."[32] This principle acknowledges that the mission should determine the structures by which the intelligence activity should be organized, and not allow any formal distinction between areas of expertise and organizations to foil the reorganization or the creation of an integrative, mission-driven setting. This principle stresses the need for deciding on community-wide missions as an organizing principle and as the basis for joint planning and execution, while taking optimal advantage of the resources and capabilities of each organization and reducing any obstacles based on organizational differences.

As in the United States, Israel's intelligence organizations also seek to promote jointness and break down barriers. A key step in this direction was the 2007 establishment of an operating division in the IDF's intelligence branch—a modern reincarnation of the intelligence-gathering platoon—as a result of the lessons of the Second Lebanon War. The purpose of this division is to create better lines of communication between the various intelligence systems in the IDF's Military Intelligence Directorate, as well as between intelligence in general and the various operational field echelons. The operating division is meant to serve as a kind of operational command center for all the entities in the intelligence branch. It was given the authority to direct the special operational units subordinate to the Military Intelligence Directorate, allocate intelligence-gathering resources based on changing situational assessments, and steer joint processes.[33] The lessons of the Second Lebanon War caused the division to formulate a new understanding of compartmentalization, which allows faster and better assimilation of intelligence among the fighting forces. Training is another sphere that helps to promote jointness. For example, in the late 1970s, the IDF began a senior intra-service intelligence course whose primary purpose was to encourage cooperation by bringing together the senior members of the intelligence community. In recent years, the course has been thoroughly revamped and now focuses on creating and enabling

jointness, both within the senior management and command echelons, as well as within the professional fields.[34]

The technological transformations in the cyber era have affected greatly the ecology necessary to maintain jointness among the various intelligence services. The changes that have occurred in management and information systems have provided the intelligence community with new challenges and opportunities. This is manifested by new modes of interaction and discourse among analysts and intelligence gatherers, such as the Wiki platforms, based on the Wikipedia model—an open encyclopedia in which users create and edit entries and contribute their expertise—or social media-based platforms, in which a variety of parties concerned with a certain issue can discuss and contribute their own interpretations and insights. The discourse within the intelligence social network neutralizes any obstacles that are related to the participants' organizational memberships or ranks, which usually have considerable influence in other non-networked discourses.[35] In this context, American researchers have proposed the concept of a "shared intelligence environment" that has characteristics of social media, including virtual meetings, shared writing, and working on "living" or "dynamic" documents (documents that are continually edited and updated), blogs, and so forth.[36]

Jointness Models in the Intelligence Community: American and Israeli Case Histories

Presenting the Typology

As shown by Diagram 4 below, jointness models in intelligence may be characterized by two variables: the operational environment and the conceptual core. The first variable, the operational environment, can be described by an axis where one end represents a pure intelligence-operating environment, and the other end represents a mixed or multi-entity operating environment in which intelligence is only one of the players. A purely intelligence-operating environment relies upon intelligence methodology and concepts, while compartmentalization is limited or non-existent. In contrast, a mixed operating environment, in which intelligence is one of many entities, employs various methodologies and is characterized by different organizational identities. Intelligence is then required to adapt to different, external rules, adjust itself conceptually and operationally, and adhere to the rules of compartmentalization. The second variable—the conceptual core—

can also be described by an axis whose one end represents the conceptual idea of jointness and the other—the organizational concept. The intersection of the two axes creates a matrix of four archetypes of intelligence jointness models, as follows:

a. The first archetype represents cognitive jointness, characterized by joint thinking and learning by several players from a variety of intelligence organizations and the formulation of other intelligence concepts.

b. The second archetype also deals with the framework of jointness for thinking and designing the system; in this case, however, the intelligence organizations represent only one of a group of players, while the emphasis is placed on the development of knowledge of the system as a whole.

c. The third archetype represents intra-intelligence jointness, which takes place among those who engage in research, information gathering, cyberspace, and technology. This jointness relates to the crux of intelligence work and enables intelligence to gain the most from its capabilities.

d. The fourth archetype represents jointness between intelligence and non-intelligence systems and organizations.

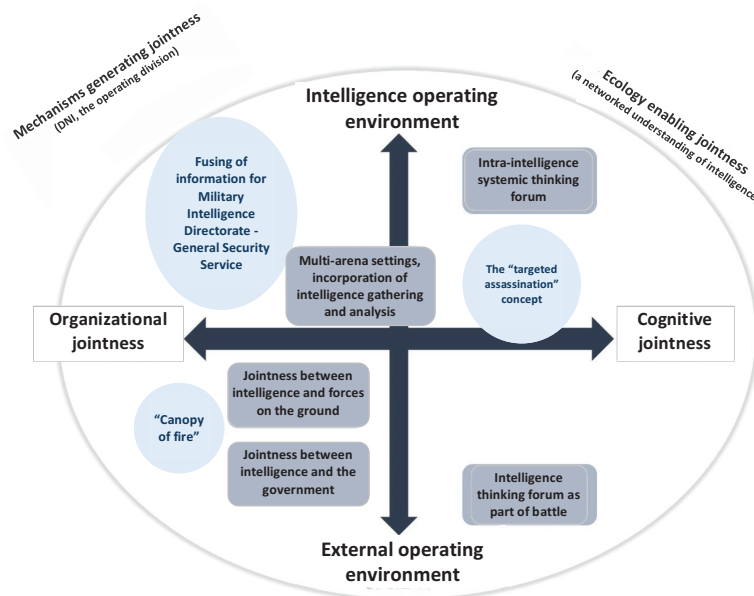This essay will expand upon the latter two archetypes.

Diagram 4: Typology of Jointness Models

Examples of Jointness in Intelligence

Many examples of joint intelligence settings can be found within the American intelligence community. Well covered in the research, the National Counter Terrorism Center (NCTC) was established at the recommendation of the Commission of Inquiry on 9/11. The commission had to deal with the need for integrative intelligence assessments of various terrorist threats and for research settings that would collect the various assessments of the different entities within the American intelligence community. The NCTC represents the understanding that terrorism is a unique battlefield that integrates the internal and the external and that only an integrative intelligence community can foil terrorism, unlike the divisive nature that had characterized the US intelligence agencies until then.

The NCTC includes a large division for intelligence research, which are divided into branches corresponding to different arenas of threat. Each branch consists of representatives from several American espionage agencies.[37] The NCTC receives the raw intelligence produced by each of the espionage agencies, and its researchers must construct comprehensive, holistic assessments of the various terrorist threats. A study written by a CIA researcher,[38] who had worked for the NCTC for about two years, indicates that the NCTC's prestige and status are not on par with the other organizations whose representatives work with the NCTC; the inferior position of the NCTC is the result of the organizational and political environment in which it operates.[39] Over the years, veteran espionage organizations such as the CIA have nurtured a tradition of organizational pride that furthers intra-organizational excellence, but makes jointness with other external espionage agencies difficult.[40] As a result, employees from different espionage agencies that go to work with the NCTC tend to carefully guard their original organizational identity.

Lately, the CIA has undergone comprehensive structural change, leading to the establishment of ten geographical and topical mission centers; in each center, representatives of all the intelligence professions (covert operations, research, technology, and so forth) are active.[41] This change is an example of a new architecture of intelligence organizations, given the need for an integrative approach for dealing with the current intelligence challenges; it is not an example of inter-organization jointness, but rather of intra-organizational jointness.

Fusion Centers: Jointness Between Intelligence and Government and Civilian Sectors

Fusion centers are situation rooms that connect the activities of government and intelligence branches and serve government authorities in various states. In the United States, fusion centers operate in conjunction with the civil sector and different government departments as part of the effort to prevent terrorism, crime, and disasters.[42] In the decade after 9/11, ten fusion centers were established in the United States operating at the regional, state, and federal levels.[43] These centers are subordinate to the Department of Homeland Security (DHS) and include representatives from government agencies, the private sector, and sometimes also the military. All centers have representatives from at least one US intelligence agency, in addition to the legal system, the police and FBI, local government authorities, authorities operating national infrastructures, and the private business sector; the presence of parties from the private sector is meant to give the fusion centers access to private company data.[44] The centers receive information from a variety of sources and create integrative situational assessments, allowing them to deter, foil, warn about, and study different terrorist threats mostly at the state level.[45] By integrating data from a broad array of intelligence, legal, and government sources, the centers are able to make assessments and periodically publish documents. When there is an ongoing incident, fusion centers are responsible for supporting the operational authorities by supplying relevant information and by connecting the various authorities.[46]

The idea behind the fusion centers was to integrate the capabilities of the various government branches, based on the understanding that confronting terrorism and crime is possible only through an integrative effort. Nevertheless, in the past decade the fusion centers have come under criticism, and commissions of inquiry have been established to examine their activities.[47] The criticism has focused on the low professional level of some of the reports produced by the centers, which flooded the US intelligence community and the DHS with information about civilian activity that had nothing to do with terrorism.[48] Another problem, which was mentioned in several fusion center reports, has been the low level of trust among the team members of the various fusion centers. One of the reasons for this state of affairs is the limitation on the use of highly classified materials, which are generally revealed only to members of the intelligence community.[49]

Jointness Between Intelligence and Operational Units

Unlike the fusion centers, the intelligence-operational interface concerns operational and intelligence processes on the battlefield. This interface occurs at the stages of intelligence gathering, processing, and analysis, as well as during the operational mission itself. The presence of intelligence in or near the sphere of operations connects it to the real world and assists in producing information that is relevant to carrying out an operation and in comprehending the intelligence gathered by the forces before and during the fighting.

The American Case

In the US army, Joint Inter-Agencies Task Forces (JIATFs)[50] have been established in order to improve the ability of US intelligence and defense systems to confront armed militias and terrorist cells that are embedded in civilian surroundings. The teams are composed of representatives from several intelligence agencies and operational and administrative units who were present in areas where the US army operated; the idea of the JIATFs relates both to headquarters and field settings. The working assumption in the creation of the JIATFs is that no single agency can provide a full and reliable assessments of armed terrorist groups and cells. One of the parties of a JIATF must serve as mission leader, and this person is given the authority to manage the activity. The size of the agency represented or the scope of that agency's contribution to the mission at hand determines who leads the mission, based on the assumption that the size of the contribution or the organization's importance confers legitimacy and validity for leading the joint team.

Evidence of successful activities of JIATFs can be found in Bosnia and Iraq where jointness made it possible to identify terrorist cells and foil attacks.[51] An analysis of the activity of the teams in these regions demonstrates that the joint presence of representatives from different intelligence and army units in highly dangerous conditions far from their home bases was the key factor that removed the psychological obstacles and generated an atmosphere of openness and cooperation. The smaller the JIATFs were, the greater the intimacy that was created, and this allowed for efficient working processes and more significant outcomes.

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The Israeli Test Case: Confronting Palestinian Terrorism
Since the early 2000s, Israel's military intelligence and the General Security Service (GSS; in Hebrew, known as the Shin Bet) have stood at the forefront of the battle against Palestinian terrorism. The crisis that Israel experienced in facing the suicide terrorists during the Second Intifada led to the development of highly effective intelligence and operational jointness, which since then has been used in routine times and war. During the long years of confrontation with the Palestinians, Israel's military intelligence transformed from being charged with helping in decision making to formulating strategy and shaping military campaigns and being a significant operational tool,[52] which focused primarily on "completing the circle," or retaliation as a response to terror.[53]

The concept that prevailed within the Israeli intelligence community in the 1990s for regulating relations between the Military Intelligence Directorate and the GSS was the "Magna Carta." To a great extent, one can view the "Magna Carta" as the reverse of the jointness approach, because it drew clear lines of responsibility between the intelligence services and defined spheres of activity and authority, leaving almost no room for joint action. After a few years of fighting terrorism together, in a period described as "years of mass arrests and targeted assassinations," the institutions of the intelligence community, especially the Military Intelligence Directorate and the GSS, grew closer to one another;[54] an atmosphere of trust and intimacy ensued, quite distinct from the atmosphere of disagreement that had characterized their earlier relationship.

Yuval Diskin, then deputy head of the GSS, pioneered the concept of "joint prevention conception," the purpose of which was to maximize intelligence and operational capabilities in order to engage in targeted killings. Under his leadership, the GSS did away with the compartmentalization that had separated the organization's geographical units because terrorist organizations crossed geographical borders and therefore a more comprehensive approach to the entire Palestinian system was necessary. Diskin also promoted channels of dialogue and coordination with Unit 8200 of the Intelligence Corps, which is responsible for collecting signals intelligence (SIGINT), and integrated its representatives in the GSS's geographical control rooms so that SIGINT could be employed for operational closure. He acted similarly with IDF operational units in the West Bank and Gaza Strip and with the Israeli Air Force.

Removing the barriers that were created by compartmentalization and creating a joint presence in command and control rooms not only led to an atmosphere of trust and openness, but also to a common language that helped to develop and forge a consciousness of jointness in the different organizations. The joining of forces within the internal environment of the intelligence agencies and in the external environment between intelligence organizations and operational units made it possible to achieve new operational goals. At a later stage, the Military Intelligence Directorate and the GSS succeeded in developing jointness at a very high level, based on fusing information from among all the intelligence gathering and research agencies. The last three rounds of fighting in the Gaza Strip (2009, 2012, and 2014) were good examples of inter-organizational jointness, which enabled information to be shared so that a high level, large "bank of targets" could be created.[55] Another expression of jointness between intelligence bodies and operational-fighting units is the "canopy of fire" project—the IDF's version of the targeted assassination model developed by the GSS. In the context of that project, parties in both intelligence and the Israeli Artillery Corps or the Air Force operate in joint attack units to foil rocket launching and anti-tank cells and to thwart the penetration of terrorists into Israel.[56]

Conclusions and Insights

The recent decades have witnessed significant changes in the concept of jointness and its practical application. At the beginning of the twenty-first century, jointness became an important tool of intelligence communities, as a result of changes to the security environment in which they operate, the intelligence challenges and the subsequent crises that affected them, in addition to the technological and cultural transformations.

Jointness describes a complex, multi-dimensional interface between entities; at its core are processes of learning at different levels, which are facilitated by a particular organizational ecology. The understanding that many working environments can be more relevant and effective thanks to the interface of jointness is not intuitive; furthermore, jointness is possible only when organizations concede some of their authority and share responsibility with others. The challenges that the organizations faced and the crises that hit them as a result revealed gaps in their relevance, which in turn, generated a willingness to engage in jointness.

This essay surveyed the theoretical and practical development of the jointness approach, distinguished between cognitive jointness and organizational jointness, and examined the interrelations and connections between them and the types of learning. The matrix created by the intersection of the axes of the two variables (the operational environment and the conceptual core) makes it possible to identify and define four archetypes or models of jointness, which the essay analyzed, using several cases studies from both the United States and Israel.

Jointness is not a magical solution; it has not proven to be the best organizational solution in every situation in which it has been tried. Test cases also show that jointness is not always properly applied. Its success depends on several components, which, when viewed together, can be referred to as the organizational ecology. The most prominent component is organizational freedom, and creating a space in which it is possible and even recommended to give autonomy to the various players. This autonomy allows for flexibility and creativity, even if it means straying from familiar working methods. Furthermore, trust among the players is very important for the success of the interfaces. Jointness among various members of a single intelligence community, and, in particular, jointness between intelligence agencies and external parties, is possible mainly in situations in which intelligence personnel are able to develop expectations of positive behavior from their partners and reduce their concerns about negative behavior. This builds trust, which increases players' willingness to take chances, including revealing themselves and sharing with each other. The notion of an overarching body (such as the DNI in the United States) that facilitates and generates jointness and can influence the organizational ecology has emerged as important, at least in the context of the American intelligence community. A director of such a body can encourage the creation of a conducive climate for jointness, as well as promote awareness and the values needed for engaging in shared work.

The ultimate manifestation of intelligence jointness is in the multi-arena setting that incorporates intelligence gathering and research bodies. This model represents aspects of both cognitive and organizational jointness, from processes of thinking and learning in its making to the way in which it is realized. In these cases, jointness indicates an understanding that the format of traditional intelligence work that is split among various disciplines needs to be changed to mission- or arena-driven intelligence production.

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In conclusion, jointness is a response to some of the key issues that the intelligence communities are currently confronting; adopting the concept of jointness would enable them to provide a better solution to these challenges. At the same time, it is not a panacea that obviates the need for traditional concepts and organizational structures. Realizing jointness in places and contexts where it is needed also requires shared force construction, such as personnel, communications infrastructures, and more, all which form a critical foundation for attaining this objective.

Notes

1   The first seeds of jointness can be traced to Soviet military thought on the art of the campaign. For more on this topic, see Shimon Naveh, *The Art of the Campaign: The Making of Military Excellence* (Tel Aviv: Ministry of Defense Publications and Maarakhot, 2001) (Hebrew).

2   US Department of Defense, *Department of Defense Dictionary of Military and Associated Terms*, Joint Publication 1-02 (Washington, DC, amended through September 17, 2006), p. 132.

3   An example is the US naval strategy, "Ship Maritime Strategy 600," which involved warships and aroused the ire of the heads of the other branches when it was presented. See Don M. Snider, "The US Military in Transition to Jointness Surmounting Old Notions of Interservice Rivalry," *Airpower Journal* 10, no. 3 (Fall 1996), http://www.airpower.maxwell.af.mil/airchronicles/apj/apj96/fall96/snider.html.

4   Ibid.

5   The text of the act is available at "Goldwater-Nichols Act of 1986," US Code Legal Information Institute, Cornell Law School, http://www.au.af.mil/au/awc/awcgate/congress/title_10.htm; for more on the act, see "Goldwater-Nichols Act," Wikipedia, https://en.wikipedia.org/wiki/Goldwater%E2%80%93Nichols_Act.

6   Joint Chiefs of Staff, *Joint Warfare of the US Armed Forces*, Joint Publication 1 (Washington, DC: National Defense University Press, November 11, 1991), http://hdl.handle.net/2027/uiug.30112001695292.

7   The doctrine was shaped hierarchically in a top-down manner, unlike the navy doctrine, which was formulated by the different fleets in a bottom-up fashion. For more, see Paul J. Bolt, Damon V. Coletta, and Collins G. Shackelford, *Defense Organization: The Need for Change: Staff Report to the Committee on Armed Services* (Washington DC: US Government Printing Office, 1985), http://babel.hathitrust.org/cgi/pt?id=mdp.39015011556266;view=1up;seq=1.

8   Snider, "The US Military in Transition."

9   Efron Razi and Pinhas Yehezkeli, *Public Management at a Crossroads: From Selfishness to Cooperation* (n.p.: Center for Strategy and Policy Study, National Security College, IDF, May 2007), p. 31 (Hebrew).

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10 This approach to developing an application is called service-oriented architecture (SOA). See "Service Oriented Architecture (SOA) and Specialized Messaging Patterns," Adobe, 2005, http://xml.coverpages.org/SOA-Adobe20050221.pdf.

11 Zvi Lanir, "Why We Need the Concept of Jointness" *Maarakhot*, no. 401 (June 2005), p. 20 (Hebrew).

12 For more on the distinction between coordination, cooperation, and jointness, see the jointness chart at https://doalogue.co.il/wiki/.

13 Lanir, "Why We Need the Concept of Jointness," p. 25.

14 Razi and Yehezkeli, *Public Management at a Crossroads: From Selfishness to Cooperation*, p. 59.

15 Ibid, p. 53.

16 US Department of Defense defines "Jointness of the Joint Force" as follows: "Jointness implies cross-service combination wherein the capability of the joint force is understood to be synergistic, with the sum greater than its parts (the capability of individual components)." It defines "Joint Operation Planning" as providing "a common basis for discussion, understanding, and change for the joint force, its subordinate and higher headquarters, the joint planning and execution community, and the national leadership." See United States Department of Defense, *Doctrine for the Armed Forces of the United States* Joint Publication 1 (Washington DC: United States Department of Defense, March 2013), pp. xii, ix, http://www.dtic.mil/doctrine/new_pubs/jp1.pdf.

17 US Department of Defense, *Department of Defense Dictionary of Military and Associated Terms*, pp. 11, 13–14.

18 Doctrine Department, Safety and Training Commands, "Lexicon (2006)," in *Systemic Planning* (IDF, Operations Division, Doctrine Training), (Hebrew).

19 For more on the distinction between forming and planning in the system's jargon, see Yotam Hacohen, "Forming the Campaign," Doalogue, (Hebrew), https://doalogue.co.il/wiki/עיצוב המערכה.

20 Kobi Michael, "The Failure of Learning in the Test of Matching Statesmanship to Militarism in the War on Terrorism in the Middle East," *POLITIKA—The Israeli Journal of Political Science and International Relations* 25 (2015): 6 (Hebrew).

21 Gabriella Heichal, *Decision Making in a Crisis* (Tel Aviv: Maarakhot, 1992), pp. 75–79 (Hebrew).

22 Kobi Michael, "Who Really Dictates What an Existential Threat Is? The Israeli Experience," *Journal of Strategic Studies* 32 no. 5 (2009): 687–713.

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26 Itai Brun, *Intelligence Research: Clarifying Reality in an Era of Change* (n.p.: Israel Intelligence Heritage and Commemoration Center (IICC), The Institute for Intelligence and Policy Research, Effi Meltzer Ltd., 2015), p. 97 (Hebrew).

27 For more on the challenge in surveilling a disappearing enemy, see ibid, p. 93. On the challenge in the making, see ibid, p. 32.

28 Ibid, p. 12.

29 Bridget Rose Nolan, "Information Sharing and Collaboration in the United States Intelligence Community: An Ethnographic Study of the National Counterterrorism Center," (PhD diss., University of Pennsylvania, 2013), p. 158.

30 United States, Office of the Director of National Intelligence, *500 Day Plan, Integration and Collaboration* (October 10, 2007), http://fas.org/irp/dni/500-day-plan.pdf.

31 United States, Office of the Director of National Intelligence, *The National Intelligence Strategy of the United States of America* (September 2014), http://www.odni.gov/files/documents/2014_NIS_Publication.pdf. The idea was referred to in several versions of the document over the years between 2005–2014. For 2005, see http://fas.org/irp/offdocs/nis.pdf; for 2009, see http://fas.org/irp/offdocs/nis2009.pdf. See also Joint Chiefs of Staff, *Joint Intelligence*, Joint Publication 2-0 (October 2013), http://www.dtic.mil/doctrine/new_pubs/jp2_0.pdf.

32 See, for example, United States, Office of the Director of the National Intelligence, *The National Intelligence Strategy of the United States of America* (August 2009), p. 11.

33 Amir Rapaport, "Upheaval in Intelligence," Israeldefense, March 6, 2014 (Hebrew), http://www.israeldefense.co.il/he/content/טלטלה-מודיעינית.

34 Shai Shabtai and Omri Gefen, *Promoting Jointness in the Intelligence Community Using the Senior Inter-Service Intelligence Course* (internal publication, 2015), (Hebrew). The document was presented to an intelligence forum at the Institute for National Security Studies.

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37 These include the National Geospatial-Intelligence Agency (NGA), Federal Bureau of Investigations (FBI), Defense Intelligence Agency (DIA), National Security Agency (NSA), and the CIA.

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55 In reference to Operation Cast Lead, see Yossi Melman, "The wonders of fusion," *Haaretz*, August 1, 2008 (Hebrew).

56 Amir Bohbot, "Intel gathering officer: The story of a targeted assassination," *Walla*, December 28, 2012, http://news.walla.co.il/item/2601434 (Hebrew).