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Modeling an Intelligence Analysis Profession on Medicine¹

For decades intelligence analysts have played a key role in national security decisionmaking of all kinds, and have increasingly been used by law enforcement agencies at the federal, state, and local levels, as well as by private industry. Yet, even with its rich history, intelligence analysis has historically been practiced more as a craft reliant on the intrinsic skill and expertise of the individual analysts than as a highly developed profession with structured personnel practices to select and develop desired characteristics, skills, and behaviors. For example, a key factor in the production of high quality intelligence analysis is the skill and ability of the intelligence analyst, yet no official standards exist to ensure the competency of individual analysts. Any occupation that lacks performance standards or other formal personnel practices will have difficulties improving both its practices and management, and this has been the case with intelligence analysis across its different disciplines.

Fortunately, over the past few years many improvements in the practice of intelligence analysis have occurred in national security, law enforcement, and private industry, effectively beginning the process of turning intelligence analysis from a craft into a more highly developed profession. But this professionalization process has been spontaneous and its implementation haphazard.

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Modeling the intelligence analysis professionalization process on an existing profession such as medicine would provide a more efficient, effective, and uniform push toward its improvement. Medicine became a formal profession primarily through the efforts of an overarching organization—the American Medical Association—which facilitated the accumulation of knowledge, structured improvement in techniques and practices, and the transference of best practices from generation to generation. Creating an American Intelligence Analysis Association that spans the national security, military, law enforcement, and business intelligence communities, as well as their respective specialties, would provide a similar foundation for the continued improvement of intelligence analysis and would, over time, establish intelligence analysis as a true professional discipline in its own right.

DEFINING INTELLIGENCE ANALYSIS PROFESSIONALISM

Professionalism is important because it has a direct relationship with individual and organizational performance. In 1985, George Allen—an intelligence officer at the Central Intelligence Agency (CIA)—assessed the state of the national security intelligence profession. As he observed:

Many of the problems that have given rise to criticism of intelligence can be attributed to a lapse of professionalism in intelligence services. Deficiencies in expertise, unmet responsibilities, and corporate weaknesses are apparent in most of the so-called intelligence failures from Pearl Harbor through the Bay of Pigs to Iran. Individual and corporate commitment to professional excellence can diminish the likelihood of such deficiencies in the future. The effectiveness of intelligence can be enhanced, and public confidence in its performance restored, through the further professionalization of the vocation and its institutions.²

According to Allen, “Professionalization is a process, rather than an end; it is the process through which occupations take on characteristics which set them apart from less specialized and structured activities. . . . [P]rofessionalization [also] connotes the development of a set of behavioral norms resulting when practitioners adopt responsible attitudes toward their vocation.”³

Allen uses as a model Samuel Huntington’s assessment of military professionalism in his book *The Soldier and the State*. According to Allen,

Huntington groups the criteria of professionalism under three broad headings: expertise, responsibility, and corporateness. Huntington sees the professional man acquiring his special expertise through long education and experience, and adhering to objective standards of

professional competence...Huntington's professional man responsibly practices his specialty in a service essential to society...In Huntington's model, members of a profession share a sense of corporate unity and are conscious of themselves as a group apart from laymen (with a collective sense derived from) the lengthy discipline and training necessary to achieve professional competence, the common bond of work, and the sharing of a unique culture and social responsibility.⁴

Allen then assesses the intelligence occupation by these criteria, and concludes that "the vocation of intelligence meets the principal criteria of professionalism, in terms of expertise, responsibility, and corporateness. While falling somewhat short of the ideal-type profession—as do all other professions—the fundamental character of intelligence as a professional activity is undeniable."⁵ Allen also agreed with Huntington's observation that "the strength and effectiveness of the [professional] varies directly with the extent to which he approximates the ideal-type professional; the more professional he is in his approach to his vocation, the more effective he is in it."⁶

For Allen, "professionalism is . . . properly viewed as a relative, rather than an absolute, quality" depending on "where [it] . . . stands in the spectrum of professionalized occupations." He goes on to observe that "sociologists view the phenomenon of professionalization as a process affecting most occupations to some degree. They postulate an occupational continuum having at one end an 'ideal-type,' highly developed profession and at the other end the least sophisticated, undeveloped occupations."⁷

Allen's distinction between highly developed and undeveloped occupations is the same as the difference between a craft and a formal profession. According to the dictionary, a craft is "an occupation or trade requiring manual dexterity or artistic skill" whereas a profession is a field that requires "specialized knowledge and often long and intensive academic preparation."⁸ But some occupations require both a practical skill set and academic preparation. For example, medicine requires a substantial amount of academic training, yet also relies on the dexterity and skill of its practitioners. While much of clinical medicine is firmly grounded in basic science research, a substantial practical component to medical practice cannot be found written in any textbook or taught in any classroom, and is instead passed down from attending physicians to resident physicians to medical students. As a result, medical students are often admonished during their education that medicine is "an art and not a science."

Intelligence analysis is similar to medical diagnosis in that it requires a combination of skills acquired through practical experiences and specialized knowledge acquired through academic training.⁹ Although each

field has a different substantive focus, the similarities in analyzing and interpreting data are striking. Practitioners in both fields use approximations of the scientific method as a means to organize and interpret the information they have collected. In addition, both fields also require critical thinking and judgment to interpret the evidence that goes above and beyond what can be quantified or automated. Accordingly, the accuracy of intelligence analysis or medical diagnosis may rest in part on the knowledge, skills, and abilities of the practitioners. Yet, despite the similarities between the occupations and their possession of craft-like characteristics, medicine is a fully acknowledged profession but intelligence analysis is not. So what distinguishes highly developed occupations from undeveloped occupations or crafts?

Professions such as law and medicine are more developed than other occupations because they possess formal and structured personnel practices, including minimal graduate educational requirements, a selection process consisting of a formal testing program, an established training program, and continuing professional development programs. Formal professions also rely on the autonomy and judgment of practitioners, possess a code of ethics that is enforced by members of the occupation, and have associations that define and certify the requirements necessary for entry into the profession, and standards of practice.¹⁰ In addition, these formal professions also possess mechanisms such as specialized journals for acquiring knowledge about best and worst practices, enabling cumulative learning and improvement over time.¹¹

At first glance, the discussion of craft versus formal profession may appear to be academic, but several significant implications for personnel management and the accumulation of occupational knowledge stem from this distinction. For example, traditional crafts emphasize skill development through training and experience, while professions rely on a structured academic curriculum supplemented by an apprenticeship program or on-the-job training. The distinction between craft and profession can also lead to different methods for determining quality: crafts tend to rely on word-of-mouth based on proficiency, while professions rely on externally applied certification standards that individual practitioners must meet. There are even implications for the ability of the occupation itself to aggregate knowledge and learn over time. Crafts rely primarily on the skill of the individual practitioner, and this does not change from generation to generation, while professions aggregate the knowledge of past practitioners and relay it to prospective entrants via their preprofessional educational requirements.

So, historically, has intelligence analysis—which like medicine requires both a practical skill set and academic preparation—been practiced as a craft, or more like a well-developed formal profession?

HISTORIC CRAFT-BASED PRACTICES

For most of the past century national security intelligence analysis has been practiced as a craft rather than a formal profession. When national security intelligence agencies were institutionalized after World War II, relatively few individuals practiced intelligence analysis compared to today; personnel practices were based on an apprentice model; and individual development was more ad hoc than structured. As Wilhelm Agrell observes, the early period of intelligence during World War II “was followed by the ‘guilds,’ the time of the skilled craftsmen in well-fenced, closed organizations.”¹² Even today, intelligence analysts refer to “tradecraft,” or the doctrine and practices used to produce intelligence analysis.¹³

During the Cold War some aspects of professionalism crept into the intelligence analysis occupation. According to Jack Davis, this was primarily due to the efforts of Sherman Kent, whose legacy included a rudimentary analytic code of ethics, the beginnings of an intelligence literature with the establishment of the CIA’s intelligence journal, *Studies in Intelligence*, and the creation of the CIA’s Center for the Study of Intelligence (CSI).¹⁴ In addition, other efforts to advance knowledge of the intelligence analysis occupation were established such as the Defense Intelligence College—since renamed the Joint Military Intelligence College (JMIC)—and its *Defense Intelligence Journal*;¹⁵ the Association of Former Intelligence Officers (AFIO); the National Military Intelligence Association (NMIA);¹⁶ and the academic Intelligence Studies Section of the International Studies Association.¹⁷ Combined, these efforts have made huge advances in the understanding, development, and improvement of intelligence analysis as an occupation.

Yet, despite these improvements in professional practices, intelligence analysis has not yet become a formal profession.¹⁸ As Wilhelm Agrell notes, in the 1970s intelligence analysis was “a kind of semi-profession, resembling an early form of organized skills like a medieval guild. Here the secrets of the craft were transferred from master to apprentice through a process of initiation and sharing of silent knowledge. The craft was not developed but reproduced; its knowledge was static and the process cyclic.”¹⁹ It is not much different today. As Jeffrey Cooper notes,

Intelligence remains a “craft culture” operating within a guild structure and an apprenticeship system—in fact, self-consciously referring to “tradecraft” for example. . . . Such a culture builds pragmatically on accreted practices that were successful in the past, lacks the strong formal epistemology of a true discipline, and is reliant on implicit transmission of often tacit expertise and domain knowledge from experts to novices.²⁰

In contrast to the legal and medical professions, intelligence analysis does not have well-defined systemic formal knowledge, such as a coherent doctrine or theory, does not involve high levels of individual autonomy due to involvement of management in approving the dissemination of most finished intelligence analysis, and does not have standards that are formulated or enforced by other members of the occupation. The various efforts to improve organizational performance and advance knowledge, such as those advocated by Kent, remained isolated from other efforts, and the knowledge gained in one area has not been applied elsewhere.

Essentially, intelligence analysis as an occupation is only marginally more professional today than it was in 1955 when Sherman Kent first articulated the need for an intelligence literature as a foundation for an intelligence profession.

NEGATIVE CONSEQUENCES

The failure of intelligence analysis to become a formal profession has led to great variation in the competence and skill of individual analysts, uncertainty regarding the very duties of intelligence analysts, and an overall diminution in the role that intelligence analysis could play in decisionmaking.

Intelligence analysts have much to offer decisionmakers, but the failure to standardize their practices prevents their services from being fully utilized. A key factor in the quality of the finished intelligence produced is the skill and ability of the intelligence analyst, yet no official standards exist to ensure the competency of individual analysts. Unlike the legal and medical professions, intelligence analysis as practiced is unregulated, unstandardized, and lacking in all but the most rudimentary aspects of a profession.

With no check on analyst competence or analytic quality, intelligence consumers have no assurance that intelligence analysis is consistently reliable. Some intelligence producers have established more rigorous standards and development programs than others, but in the end each agency creates its own processes for hiring and developing intelligence analysts. This inconsistency leads to widely varying analytic duties and quality of performance both within and between each intelligence-producing component. On one end of the scale, some analysts perform the role of information processor by sifting raw intelligence data for possible patterns and correlations, while at the other end, senior analysts engage with national security decisionmakers to provide expert evaluation and assessment of various international events for U.S. foreign policy. Though there are many different kinds of analysis as well as analysts, the lack of a single definition for intelligence analysis or a defined set of practices and procedures means that intelligence analysts do whatever they are assigned to do, regardless of whether that entails lower- or

higher-end tasks. In addition, no test or program exists for distinguishing good analysts from bad ones, resulting in widely varying analytic competence. As a result, intelligence agencies rely on analytic redundancy, hoping that individual insight and creativity will lead to the creation of useful or accurate analysis. The end result of this hit-or-miss personnel process is misunderstanding and mistrust by decision makers of the intelligence provided to them.

Intelligence consumers also have no assurance that the informal code of intelligence analysis ethics—consisting, in essence, of both independence and objectivity—has been complied with. A characteristic of every profession is “a distinctive code of ethics which promulgates ideals of service to a society”²¹ as well as to the client, who, in the case of intelligence analysis, is the decision maker. But the nature of the code can matter a great deal in terms of the autonomy of the intelligence analyst and his or her relationship with decisionmakers. Specifically, the agency model “takes the professional to be the assigned agent of the will or decisions of the client . . . who directs the professional to achieve the client’s aims” within constraints defined by the norms of the profession.²² By way of contrast, the fiduciary model “sees the professional as acting in the best interest or for the benefit of the client” with “authority to act . . . ceded to the professional” based on trust.²³ In the absence of a formal code of ethics, controversies have continued to arise over the appropriate relationship between intelligence and decisionmaking.

Perhaps most importantly, however, the lack of a single professional focal point for the intelligence analysis occupation has led to a failure to gain cumulative knowledge and standardized application in the discipline. As a result, “best practices” are implemented in scattershot fashion as intelligence-producing agencies develop and implement their own, and lessons from their implementation have been largely lost to those who might learn from their experiences.

For example, the CIA’s organizational reforms and improvements frequently result from task force recommendations or consultations with outside experts. But each time a change is made in structure or process, the wheel—consisting of tying existing practices to theoretical constructs of function and purpose—is re-created. Once the recommendations are made and the task force or consultancy disbanded, the lessons learned regarding the conversion of theory to practice dissipate. As a result, the field of intelligence management has been for the most part ahistorical, with limited and noncumulative knowledge of how its theory should be put into practice.²⁴ As Paul Johnson, the director of the CIA’s Center for the Study of Intelligence, observed in early 2005, the Intelligence Community does not do an adequate job recording, documenting, analyzing, or distilling lessons from its own past experiences.²⁵

In essence, intelligence analysis and its management have been practiced more as a craft dependent on the skill of its individual practitioners than as a profession that aggregates knowledge and is able to improve over time by teaching accumulated best practices to incoming personnel. If these problems, which result from lack of standardization and formal practices, are to be overcome, greater efforts toward formal professionalization will be necessary. In fact, the shift from craft to profession has already begun.

TURNING A CRAFT INTO A PROFESSION, SPONTANEOUSLY

Intelligence analysis has increasingly begun to develop professional practices, and the field is experiencing a wave of improvement and growth simultaneously. Intelligence analysis has become accepted to a greater degree in law enforcement and private industry, and, since the end of the Cold War, intelligence practitioners and scholars have become more open to publishing their evaluations of analytic methods and suggestions for improvement. In addition, since the 11 September 2001 terrorist attacks on New York City and Washington, D.C., much attention has focused on understanding the role of intelligence analysis in protecting U.S. national security. Intelligence agencies have sponsored a number of conferences, bringing together experts from both the Intelligence Community and academia to discuss various aspects of intelligence performance and study.²⁶ But perhaps most notable are the many new programs geared to improve professional practices:

Human Capital Management

For the past decade, much attention has been devoted to human capital management. For example, in the mid 1990s, the CIA and other national security intelligence agencies identified and developed programs intended to bolster the analytic competencies required to perform well in each analytic specialty.²⁷ This focus on defining analytic competencies has continued in other disciplines, such as business intelligence²⁸ and law enforcement.²⁹ In addition, some academic programs, such as Mercyhurst College's Intelligence Studies Department, have begun to provide a core intelligence analyst curriculum at both the undergraduate and graduate levels intended to develop these essential competencies prior to employment.³⁰ Also, some recent studies have focused on improving the recruitment and hiring of intelligence analysts.³¹ Much additional work is being done on codifying aspects of intelligence analyst development, although thus far there is no central repository where lessons learned can be shared.

Training and Education

For the past decade, intelligence agencies have also devoted much more attention to improving the training and education of intelligence analysts. In 2000, the CIA created the Sherman Kent School for Intelligence Analysis to improve training for its analysts,³² and in 2002 created CIA University as a mechanism to integrate all its training efforts under a single institutional superstructure. In addition, in 2005, a working group—formed under the auspices of the newly created Director of National Intelligence (DNI) to respond to suggestions that the Intelligence Community should develop common standards for training, education, and career development—began the process of developing a common set of analytic standards for all members of the Intelligence Community. These standards are intended to be used in curriculum development at the National Intelligence University, with possible later incorporation into the operations of the various intelligence agencies.

In terms of law enforcement intelligence analysis, in 2001, the Federal Bureau of Investigation (FBI) created its College of Analytic Studies, and, in 2004, the Department of Justice facilitated the articulation of law enforcement intelligence training standards in an appendix to its National Criminal Intelligence Sharing Plan.³³ Advances have also been made in the field of competitive intelligence training and education, although much room for additional improvement remains,³⁴ as it does in all the analytic disciplines.

In order to improve by learning from each other, efforts have also been made to formalize the sharing of information among various intelligence entities regarding analytic training and education. In 2004, Pennsylvania's Mercyhurst College provided the location for the creation of an International Association for Intelligence Education, which is intended "to serve as the association for advancing research, knowledge, and professional development in intelligence education" across all analytic disciplines.³⁵ As Wilhelm Agrell has observed, "If a modern profession is characterized by the transformation from improvisation and master-apprentice relations to formalized education and training programs, then intelligence analysis has come a long way."³⁶

Intelligence Specialties

Over the past couple of decades, intelligence analysis has become accepted to a greater degree in fields other than national security, such as law enforcement and private industry. Also, in the wake of the 2001 terrorist attacks on the U.S., the emphasis on protecting homeland security and the creation of the Department of Homeland Security have led to a large increase in the number of intelligence analysts nationwide. Both law

enforcement and business intelligence fields are emphasizing improvement in their respective disciplines similar to that being undertaken in the national security intelligence discipline. Each discipline has its own association that sponsors a journal oriented towards its own members, and holds an annual conference.³⁷ Ironically, in terms of professionalism, the law enforcement and business intelligence analysis specialties appear to have overtaken their older and larger national security counterparts. Even though many national security and military intelligence associations exist—including AFIO and NMIA, and those representing particularized military specialties—most do not provide an effective venue or mechanism for improving the professionalism of active practitioners. As George Allen observed in 1985, “There are no professional societies outside the bureaucracy other than those consisting of retired intelligence officers, and although some of these are dedicated to furthering public understanding and acceptance of the intelligence profession, they exercise no authority over its practitioners.”³⁸ By way of contrast, law enforcement and business intelligence associations have much greater involvement from current practitioners and have gone much further in terms of developing formal professional practices.³⁹

Certification and Licensing

No national intelligence agency has a formal certification process yet, but as of 2000 a *de facto* certification process was established for national security journeymen analysts through the Intelligence Community Officer Program.⁴⁰ In addition, the FBI announced that it was “developing Intelligence Officer Certification criteria for FBI professionals . . . that can be earned through a combination of intelligence assignments and training.”⁴¹ Other law enforcement intelligence analysts have for years had a credentialing option through the Society of Certified Criminal Analysts and the International Association of Crime Analysts.⁴² Finally, in 2004, the Society of Competitive Intelligence Professionals (SCIP) created a Competitive Intelligence Certificate program for business intelligence practitioners.⁴³

Knowledge Advancement

Efforts are currently underway to increase knowledge regarding how intelligence analysis is performed, and how it can be performed better.⁴⁴ The CIA’s Sherman Kent Center for Intelligence Analysis seeks provide a mechanism for creating and disseminating knowledge regarding intelligence analysis.⁴⁵ The Joint Military Intelligence College also has a Center for Strategic Intelligence Research at the Joint Military Intelligence College which publishes research geared to advance understanding of intelligence analysis.⁴⁶ In 2005, the CIA’s Center for the Study of Intelligence created a “lessons learned” staff to improve the Agency’s knowledge of its own

activities and improve its organizational capabilities,⁴⁷ and the Defense Intelligence Agency (DIA) “created a virtual and independent Knowledge Laboratory to help improve all-source analysis” by using “short-term, pilot projects to experiment with improving knowledge- and social capital-related behaviors in the work place.”⁴⁸

Ethics

The CIA has begun articulating a code of ethics for intelligence analysts based on the doctrine espoused by Sherman Kent in the 1950s and 1960s. As Jack Davis notes, Frans Bax, the founding Dean of the CIA’s Kent School, enumerated a list of principles for intelligence analysis, including a focus on policymaker concerns, avoidance of a personal policy agenda, intellectual rigor, a conscious effort to avoid analytical bias, and a willingness to consider other judgments.⁴⁹ In sum, the principles form a rudimentary code of ethics that all intelligence analysts should follow as they do their analysis. Additional work on the applicability of ethics to intelligence analysis—including the derivation of ethical principles and the development of a professional code of ethics—is being done by the Intelligence Ethics Section of the Joint Services Conference on Professional Ethics (JSCOPE).⁵⁰

While these programs are promising steps toward improving the practice and reach of intelligence analysis, their implementation is unfortunately occurring haphazardly. Knowledge of lessons learned is not being effectively shared, thus preventing intelligence agencies from being able to implement improvements being developed by others. Making intelligence analysis more like a formal profession—what Wilhelm Agrell has called “the development process from learning-by-doing to learning-by-training, based on theory, verifiable methods, and self-reflection”⁵¹—would improve on the current situation by creating a forum for the sharing of best practices and, where consensus develops that one approach is markedly better than others, the standardization of that best practice.

One approach to improving the professionalism of national intelligence analysts would entail relying on the newly created DNI to standardize the selection, hiring, training, and educating processes for intelligence analysts across the entire foreign intelligence community. As the Commission on the Intelligence Capabilities of the United States Regarding Weapons of Mass Destruction (WMD Commission) observed: “The creation of the DNI provides a unique opportunity to reconsider implementing some elements of Community training. The benefits will be enormous: it will teach common tradecraft standards (and) standardize teaching and evaluation,” particularly through the proposed National Intelligence University.”^{52,53} But the downside of this approach is that it would likely

be evolutionary by building on programs and practices already implemented in intelligence agencies, and would not provide much opportunity for revolutionary change.

Rather than reinventing the wheel by trying to build an intelligence analysis profession from scratch, modeling the professionalization process on one of the existing professions might provide a more efficient, effective, and uniform push toward the improvement of intelligence analysis. Professor David Garvin of the Harvard Business School has observed that best practices can be adapted from other fields and used as catalysts for creativity in application, if not necessarily in replication.⁵⁴ In terms of intelligence analysis best practices, we have previously argued that intelligence agencies can look to the medical profession for ideas to improve the accuracy of intelligence analysis and its incorporation into policymaking.⁵⁵ In addition, intelligence practitioners can also look to the medical profession for ideas to increase professionalism. Specifically, it appears that medicine became a formal profession primarily due to the efforts and accomplishments of a professional association: the American Medical Association (AMA).

THE AMA AND THE RISE OF MEDICAL PROFESSIONALISM

The American Medical Association⁵⁶ has done more in the last 150 years to promote medical professionalism in the United States than any other factor.⁵⁷ The AMA was founded in 1847 out of specific concerns over the proliferation of poorly trained doctors and the widespread public use of quack remedies and other bogus cure-alls. Medical schools trained their students via informal apprenticeships and formal hospital-based training, but sustained themselves on tuition fees, so that virtually no applicant was turned down for admission. Consequently, many medical “diploma mills” cropped up. The end result was the proliferation of physicians of widely varying competence, and no mechanism for distinguishing the competent from the incompetent. The AMA’s initial intent was to elevate the standards of the medical profession by exposing those it deemed unqualified to practice medicine,⁵⁸ but its role in professionalizing medicine expanded over time.

Training and Education

The AMA’s principal efforts during the last century were directed toward setting standards for medical training and education at all levels, as well as minimal educational requirements for a medical degree. The AMA improved medical training at the premedical, medical, internship, and residency levels by establishing formal educational requirements. One of

the AMA's first acts was to recommend an increase in training, from 8–14 weeks to 6 months. In the medical schools that adopted this recommendation, enrollment dropped dramatically, indicating that only a dedicated few were willing to obtain appropriate medical training.

In the early twentieth century, the AMA also established a “Council of Medical Education” that developed medical education standards. This Council inspected all 160 medical schools then in existence and rated them as “acceptable, doubtful, or unacceptable.” In 1910, the AMA-sponsored Flexner Report found that many “medical diploma mills” were operating in the United States and called for strict criteria for medical education. By 1912, a “Federation of State Medical Boards” was established, which utilized the AMA's medical school rating as the authoritative standard for a school's accreditation. In 1920, the AMA focused its attention on post-graduate medical education, and published standards for internship training and a list of approved hospitals providing that training. In addition, since 1972 the AMA's Committee on Graduate Medical Education has accredited residency programs. Finally, the AMA, in conjunction with the nation's medical schools, helped establish standards for premedical education and minimal requirements for admission to medical school. Accordingly, the AMA has been instrumental in improving medical training and education at all levels.

Certification and Licensing

Early on, the AMA's leadership realized that establishing licensure requirements for physicians would be an important means of improving the overall quality of health care in America. The AMA worked with state medical boards and the federal government to establish criteria for medical licensure. By 1922, the AMA had helped formulate a three-part licensing program for physicians, consisting of basic sciences, clinical sciences, and an oral exam. Then, in 1951, the AMA began to set standards for the accreditation of hospitals. In the 1960s, the AMA standardized terminology for medical procedures used in documentation, and set standards for requirements for continuing medical education (CME) for physicians who have finished residency training. Nearly all states now require documentation of AMA-approved CME training for medical license renewal.

Medical Specialties

The AMA has also facilitated the medical community's ability to specialize, by creating standards for the various specialties while at the same time finding common ground and bridging differences between them.

Specialization ultimately flourished during the early twentieth century because, as medical knowledge grew, there was simply too much information on a multitude of topics for one person to master. The rise of medical and surgical specialties, such as cardiology and obstetrics, bolstered the public's perception of physicians' expertise. In addition, the AMA collaborated with the burgeoning medical and surgical specialty societies to develop standards for education, certification, and practice in each given field. The AMA also worked with medical and surgical specialty boards to set standards for residency training and requirements for "board certification" in each specialty. The AMA recognizes the authority of individual specialty boards, such as the American College of Radiology, to set the standards for their own specialty. The AMA, in turn, honors these standards, and any post-graduate medical or surgical training program that wishes to be accredited by the AMA must adhere to the criteria set by the individual specialty boards. The legal community and state medical licensing boards also use such AMA-approved standards of care as a benchmark for competent physician practice.

Knowledge Advancement

The AMA has also been central to the development and improvement of medical knowledge and techniques, and their transmission to other practitioners. As Wilhelm Agrell observes:

In medical history we cannot talk of physicians as a profession until the advent of modern medical science, anatomy, and pharmacology. The work of a profession is not the successful miracles of the gifted amateurs or the skilled craftsmen but a systematic employment of knowledge, where methods are visible and verifiable, their employment can be tested, and the results can be predicted. The dual link between science and practice, between the world of theories and the world of action, is essential.⁵⁹

Accordingly, the process of research and discovery in medicine was bolstered in 1883 when the AMA started the groundbreaking and enormously influential *Journal of the American Medical Association (JAMA)* to serve as a forum for cumulative advances in the knowledge of medical science.⁶⁰

Ethics

Finally, the AMA also set standards for ethical medical practice through the creation of a widely accepted code of professional conduct for physicians in the United States. The Hippocratic Oath and the injunction to "above all, do no harm" are popularly identified as the cornerstone of medical ethics.⁶¹

Within a year of its founding, the AMA published a “Code of Medical Ethics” which has been revised four times in the last one hundred years to reflect changes in medical practice, societal norms, and for clarity. The current version of the code emphasizes the responsibility that a physician has for the well-being of the patient, and discusses social policy issues such as “physician-assisted suicide,” inter-professional relations, hospital relations, patient confidentiality, and physician fees. According to the code, reporting ethical violations such as character or competency deficiencies, or the engagement in fraud or deception, are an affirmative obligation.⁶²

The increased rigor brought about by the AMA led to other advances such as the development of the Medical College Admissions Test (MCAT) in the 1920s, which served as a medical school selection mechanism to weed out those students who lacked the aptitude or commitment to practice medicine. The MCAT reduced attrition rates, and currently serves as a rite of passage for those who hope to enter the ranks of professional physicians.⁶³ Formal practices like the MCAT, training standards, and licensing requirements make medicine the profession it is today. In short, the AMA has played a critical role in the professionalization of medicine by enabling the medical community to become a field in which knowledge is cumulative, techniques and practices are improved over time, and best practices are transferred in a structured way from generation to generation.

PROFESSIONALIZING INTELLIGENCE ANALYSIS

Intelligence analysis has come a long way over the past few years, but it has a long way yet to go. As George Allen has noted, intelligence analysis has elements of professionalism, expertise, responsibility, and corporate character, but it can be done more economically, uniformly, and efficiently by following an AMA-like model. Creating a single association modeled on the AMA—an American Intelligence Analysis Association—to bridge the commonalities between the various intelligence analysis specialties could provide the foundation upon which a formal intelligence analysis profession could be built. Intelligence analysts in each of the intelligence disciplines—national security, military, law enforcement, and business intelligence—and disciplinary specialties—such as the CIA’s political, military, economic, and leadership analysts—use similar techniques to achieve the same goal: provide information to improve decisionmaking. Yet, the common bonds between the intelligence analysis disciplines have been for the most part lost in the particularized substantive focus of each discipline. A single intelligence analysis association that spans all intelligence analysis disciplines and specialties would provide a mechanism for greater understanding and acceptance of analytic diversity, while

codifying their common aspects into a core set of principles and understandings which would provide the common ground for the birth of a single and unified intelligence analysis profession.

A single overarching association built on the commonalities of intelligence analysis across the specialties could single-handedly integrate the building blocks of the intelligence analysis profession which are arising spontaneously in each of the analytic disciplines. The skill of the individual intelligence analyst would remain the centerpiece of intelligence production, just as the skill of the physician remains at the core of medical diagnosis and treatment—but the practices that shape the creation of the intelligence analyst and the methods he or she uses can be improved through the adoption of formal personnel practices, the standardization of best practices, and centralized knowledge accumulation efforts. This association could eventually improve both individual and institutional performance by

- (1) developing a code of ethics and articulating a common set of basic intelligence analyst competencies—such as the ability to think critically—that all intelligence analysts should possess;
- (2) establishing minimal educational requirements for prospective new intelligence analysts in each discipline, and formal criteria for the selection of new intelligence analysts;
- (3) creating common training programs supplemented by specialized training programs for each analytic specialty;
- (4) encouraging the development of continuing professional education opportunities;
- (5) aggregating and disseminating knowledge of the profession through conferences and a common journal that contributes to a core professional literature; and
- (6) enforcing basic performance standards through certification or licensing procedures.

The association would not create a *de facto* union to intervene between analysts and their organizational employers, but rather would provide a mechanism for improving analytic professionalism across the board. In addition, the creation of a centralized focal point for the sharing of knowledge would enable intelligence analysis as an occupation to learn and improve over time.

A primary benefit to modeling the mission and objectives of an American Intelligence Analysis Association on the AMA is that it would provide a mechanism for integrating the different intelligence analysis disciplines and specialties into a coherent whole. The medical profession is able to bind its different specialties together under the overall mission of improving the health of the patient and uses its code of ethics to do so. Similarly, many different kinds of intelligence analysts—both within and between

organizations—can be bound together through a single code of ethics that can be standardized across the broader intelligence analysis community. It should also be possible to use their common characteristics to build a core set of personnel standards and practices. Yet, this does not have to require uniformity across disciplines. The medical profession provides flexibility in the standards that apply to different medical specialties by establishing specialty boards that define the knowledge, skills, and abilities required for that specialty. Where differences among intelligence analysis specialties are too great to be combined under a single common standard, intelligence analysis can follow the medical model by establishing similar boards or committees. In fact, a prototype has already been developed. In the late 1990s, the CIA's Council of Intelligence Occupations defined the knowledge, skills, and abilities needed for each of eleven different "occupations" or specialties related to the production of intelligence analysis, whose interests were represented by a single Occupational Council member. Although the standards they developed were not adopted by the organization, their research provided more nuanced understanding of the education, training, and development needed for each specialty. Similar differentiations, both within and between organizations that produce intelligence analysis, can be used as a source for specific standards and expectations that apply to each of the various analytic disciplines.

Pros and Cons of an Association

Some skeptics might agree with our conclusion that greater professionalism in intelligence analysis is necessary, but argue that intelligence analysis in each of the disciplines—national security, military, law enforcement, and business intelligence—is sufficiently different to preclude the value of a single association. Instead, they might also contend that each discipline's professionalization needs should be served by its own unique association. This is already occurring in the law enforcement and business intelligence arenas, where the International Association of Law Enforcement Intelligence Analysts (IALEIA), Society of Certified Criminal Analysts, and Society of Competitive Intelligence Professionals each provides the professionalization benefits of an association to its members. Unfortunately, however, national security and military intelligence analysts do not have an association that provides similar professional benefits. We suggest that one large association be created as a superstructure to link the different intelligence analysis disciplines, while not precluding the creation of a smaller association specifically for governmental intelligence analysts, or an even larger one, to include not just intelligence analysts but also collectors and all those involved in the business of intelligence.

Intelligence practitioners in such countries as Canada and Australia have recognized the necessity to be better networked and have taken steps to create formal or informal professional associations in order to further instill a sense of professionalism, better pool intellectual resources, and benefit from each other's best practices. The Canadian Association of Professional Intelligence Analysts (CAPIA)—which was created “to promote training and high analytical standards within the Canadian intelligence community and to foster information sharing⁶⁴—has initially limited its membership exclusively to government intelligence analysts from the various national security, military, and law enforcement federal agencies. By way of contrast, the Australian Institute of Professional Intelligence Officers (AIPIO) has approached the subject of membership more broadly, and is open to all intelligence officers from all disciplines, including the private sector.⁶⁵ Either approach might work in the U.S. context. As Michael Davis, an expert in professional ethics, observes, “Each profession is a continuing discussion. . . . To join a profession is, in part, to enter that discussion, gaining some control over a common enterprise by giving up the right to act as a mere individual.”⁶⁶ Accordingly, the scope of an intelligence analysis association could vary, based on the direction that future discussions take.

A Long-Term Project

In addition, the development of official standards for intelligence analysts and a mechanism for certification will take time. Medicine became a profession over a 150-year period, and there is no reason to think that intelligence analysis will be any different. Medical certification raises the baseline competency level—although it does not necessarily ensure proficiency—by ensuring that all practitioners have an understanding of core concepts. Analytic certification could do the same, but intelligence analysis has not developed metrics for analytic quality, and credentialing too early would likely stultify the profession by enforcing overly rigid standards before they are effectively evaluated. As a result, the creation of official standards or formal certification akin to those currently in place in medicine may take years, if not decades, to develop. But the association would provide a venue for discussion and debate regarding intelligence analysis that would begin the process of developing standards through greater understanding of the tools, techniques, and methods that improve analytic performance.

RESIDUAL PROBLEMS

Despite the benefits that would arise from the creation of an intelligence analysis association, however, not all existing problems would be solved.

For example, the association would not address other factors such as limited resources, ineffective organizational policies, and overly inflated consumer expectations that contribute to weaknesses in analytic quality or utility. In addition, the association itself might cause problems such as those that have arisen in the medical context. For example, professionalism in medicine has partially contributed to the rising cost of healthcare, malpractice litigation, opposition to national health insurance, and controversial involvement in policy issues related to alcohol and tobacco use, and reproductive rights. In addition, the practices promulgated by the association can over time become rigid, leading to policies that defend the status quo—and the associated failure to police or enforce their standards and codes of conduct—rather than focusing on improvement or dynamic adaptation to changes in the external environment. For that reason, we are not suggesting that intelligence analysis adopt medical practices whole cloth, but rather adapt them to the particular needs of intelligence analysts.⁶⁷ Medicine professionalized spontaneously without a model to follow; with foresight, intelligence analysts have the advantage of learning from their mistakes and the experiences of other professions.

Intelligence agencies have endured examination after examination in the wake of multiple intelligence failures, with little thought given to the broader issues of professionalization. The National Commission on Terrorist Attacks on the United States (9/11 Commission) observed that “the quality of the people is more important than the quality of the wiring diagrams.”⁶⁸ Yet, improving the quality of the analytic workforce has received much less attention than reforming organizational structure. Effectively reforming the Intelligence Community will require changing the mindset and practices of intelligence practitioners so that they continue to focus on improving intelligence agency performance during and after the implementation of structural changes. Turning intelligence analysis into a more formal profession will go far toward changing the culture of intelligence analysts and providing the mechanism for improving the performance of the entire intelligence analysis occupation far into the future.

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