

11-20-2016

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Recommended Citation

Bin Nasser, Al-Sharif Nasser; Auda, Jasmine; and Bachner, Katherine (2016) "Cultural Awareness in Nuclear Security Programs: A Critical Link," *International Journal of Nuclear Security*. Vol. 2: No. 1, Article 12.

<https://doi.org/10.7290/v7f18wnx>

Available at: <https://trace.tennessee.edu/ijns/vol2/iss1/12>

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Cultural Awareness in Nuclear Security Programs: A Critical Link

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Abstract

Nuclear security programs that offer training and capacity building opportunities to practitioners working in nuclear facilities play a central role in strengthening the global nuclear security architecture. There is often a significant divide, however, between both the development of these programs and their implementation, and between the programs' intended and actual outcomes. As this article will argue, this disconnect can often be attributed to an absence of cultural awareness and an inability for internationally-designed programs to effectively resonate with local audiences. Accordingly, the importance of the role of cultural awareness in implementing nuclear security programs will be assessed, and its applications in the Jordanian context will be presented.

I. Introduction and Methodology

The successful implementation of nuclear security programs in the Middle East requires a number of factors to be addressed—cultural awareness, as is argued in this article, is one of the most significant of these factors. In order to assert that cultural awareness plays a critical role in ensuring the success of these programs, the concept of social sciences in international affairs will be presented. The article will then discuss the experience of the Middle East Scientific Institute of Security (MESIS) in implementing programs that lack a cultural component, and the negative impact that this may have. MESIS's perspective on the importance of cultural awareness during the design of training engagements will also be explained. Finally, Jordan's development of a human reliability program will be presented as a case study that assesses the interplay of the various components of cultural awareness, and how an active and acute cultural cognizance of these components contributed to the program's successful development.

The primary research design utilized in this article is qualitative in nature. More precisely, there is a phenomenological approach that relies on subjective observation and analysis to support the article's primary objective, which is to promote the element of culture in nuclear security programs. While this method is useful for the purposes of this study in that it highlights personal perspective and interpretation of the subject matter at hand, it also presents certain limitations to achieving the primary objective. In particular, the development of a general theory on the role of culture would be difficult to establish based solely on the individual situations presented from MESIS's perspective. Nonetheless, the article offers insight into how culture can influence the outcome of nuclear security programs, and the descriptive assessments set forth herein can be employed as a means to guide program developers and implementers in their design of training engagements across the Middle East.

II. Social Sciences in International Affairs

The role of the social sciences is becoming increasingly critical to international security. The Center for Empathy in International Affairs was recently established as the world's first organization dedicated to promoting empathy in international affairs. Their vision is that empathy can be established as a key component of international policy-making and practice.

The recognition of the role of social sciences in international affairs and security has been widely discoursed throughout the vast literature on international relations. In response to the traditional, realist, and behaviorist theories that dominated much of post-WWII discussions on how to best approach international relations, the notion of emphasizing social science components such as history and culture began to gain traction. In the mid-1960s, theorists began to popularize the argument that the scientific approach would not be able to further advance international relations theory; formal modeling, it began to be believed, could not contribute to a proper understanding of what was essentially an interpretive subject matter [1].

Furthermore, the theory of constructivism, since its initial emergence in the 1980s, has become a prominent school of thought on international relations and security [2]. The main tenets of constructivism, which state that international relations are socially constructed and shaped by values, culture, and social identities [3], further the perception of social sciences as an integral aspect to international affairs.

No other aspect of the social sciences is as important as cultural awareness. The world saw an explosion of interest in sociological questions of identity following the conclusion of the Cold War, and ever since there has been an increasing global awareness that international relations—once considered solely a politico-military construct—must necessarily incorporate economic, sociological, and historical concepts as well [4]. Cultural awareness is itself a multifaceted concept: knowledge-based considerations of traditions, of histories, and of institutions within regions other than one's own are all necessary to facilitate the altering of one's psychological awareness in order to compare one's own culture to a foreign one [5]. This mental adjustment is required of those who seek to critically evaluate global perspectives and practices. The discussion of cultural awareness and competence has begun to shift toward a focus on cultural competency, which stresses the importance of developing programs and services that are suited specifically to varying cultures. The need for such programs is of paramount importance in an ever-globalizing world [6].

III. The Role of Culture

As representatives of the Middle East Scientific Institute for Security (MESIS), an Amman-based non-governmental organization working in the field of chemical, biological, radiological, and nuclear (CBRN) risk reduction, we have long grappled with these concepts of regional mindfulness. The organization has been one of the strongest advocates for greater intercultural awareness, especially when it comes to

cooperative scientific endeavors that focus on capacity building. Most recently, MESIS was involved in the design of a series of workshops held in the United Kingdom that examined the role of cultural factors in nuclear security [7].

The workshops brought together a wide range of stakeholders from different nationalities and sectors in an informal setting that encouraged a frank exchange of views. Participants included nuclear security practitioners and regulators, policymakers, educational institutions, and even anthropologists. The workshops came away with a number of important lessons about the role of culture, including the following relevant points:

- Cultural factors can have either a positive or negative effect on nuclear security culture;
- Cultural factors can be national or organizational, and are major influencers of behaviors and norms; and
- There tends to be a Western-centric narrative of nuclear security culture.

This last point has been a particularly important issue from the perspective of MESIS and other representatives of non-Western countries. Throughout MESIS's various interactions with stakeholders from across the region, we have witnessed a near-unanimous perception that training being offered by the international community on international best practices, while valuable in and of itself, was difficult to apply to local contexts. One participant at the UK workshop from a non-Western country made a very bold admission: while on the job, he would only cooperate with members of his own tribe. This would never, he continued, be something he would usually admit to anyone outside of his fellow countrymen, but he provided it as an example of how cultural practices could greatly impact proposed security measures. This declaration underscored the reality of how detached some of these trainings can be in their reluctance to change to suit individual communities.

Having repeatedly received criticisms on the inability of these programs to meaningfully and sustainably engage the local audience, there was some feeling of vindication that a problem MESIS had identified years ago actually did exist. The fact that this frustration was increasingly becoming ubiquitous indicated the urgent need to address, and to find ways to equalize, this apparent disconnect between intention and outcome. In order to counter this circumstance, there is a need for establishing and promoting, as a community, locally derived solutions and actions

A. Defining the Problem

MESIS regularly works with international partners from governments or scientific institutions and their related contractors [8] who are implementing capacity-building activities in the Middle East. Most express an interest in the need to develop a better cultural awareness for the success and sustainability of their mission, but they often differ in the extent to which they are genuinely convinced of this. There are certainly plenty of grounds to understand why an implementer would not find cultural awareness to be a pressing priority. To give it proper consideration requires additional effort by the implementer at a time when their program is already facing considerable pressures and looming deadlines. More importantly, implementers and the policymakers to which they report prefer more quantifiable metrics when assessing the success or impact of their mission; often, qualitative impacts are overlooked altogether in favor of quantifiable data considered more concrete. Common metrics, therefore, are understandably more often straightforward measurements that can be easily taken and compared: the number of training events held in the Middle East in a given year, the number of participants in attendance, or the number of agencies represented.

In addition to the challenges that are often perceived as constraints to addressing the issue of cultural awareness, there is an underlying problem with these kinds of engagements, namely the design phase of the trainings. Nuclear security engagements are purposely designed to be modular, particularly so that they may be replicated with a certain degree of ease across different countries or regions. While this has the benefit of providing program designers with certain advantages, it can sometimes prove to be detrimental to intended audiences. The fact that local partners such as relevant civil society organizations only become involved, if at all, during the delivery of the training, means that particular cultural insights or sensitivities perceived as integral to the success of a given program cannot at that point be effectively integrated. In MESIS's experience, this has repeatedly detracted from various programs' envisioned impact.

IV. The MESIS Model

It is critical to consider the role that local partnerships can play in improving training on nuclear security. By virtue of their greater cultural awareness of the local and regional contexts, local organizations can be important partners in the design and delivery of training [9].

This starts with the proper identification of needs, and determination of whether the training is actually meeting them. Training programs on offer by a variety of donors can be repetitive or duplicative and could even compete with each other. At times, a donor's choice of a particular training topic could be determined by what the donor assesses to be the need of the recipient. In other instances, donors work with national authorities to determine needs more collectively, but even in collaborations such as these, organizations like MESIS may hold unbiased insights and may be able to best articulate certain needs on behalf of the recipient authorities. It would be a great benefit to the implementers, then, to open communication with local, neutral facilities in order to incorporate the insights from these groups into the design of individualized programs. There are always legitimate concerns that training providers are looking to collect information about the security architecture of a given country when they attempt to support needs assessment processes. This has been a major reason why needs assessment processes have not succeeded in regions like the Middle East, due to the local perception of these processes serving as information-gathering sessions.

The design of training engagements is also an area where local organizations can play a critical role. For instance, while many training providers coming to Jordan prefer typical classroom setting training, MESIS prefers and encourages more simulation-based training. Given the high amount and regularity of training that experts in Jordan are undergoing, it has become difficult to keep interest levels high, or to ascertain the level of knowledge retention. Accordingly, MESIS is a big believer in, and promoter of, the "gamification" concept, which suggests that game dynamics are a much more effective way of engaging audiences and can be used as a new educational tool.

According to a University of Toronto research report on the gamification of education, motivation and engagement are considered as prerequisites that are either required for the completion of a task, or for the encouragement of a specific behavior. The report goes on to assert the following: "In today's digital generation, gamification has become a popular tactic to encourage specific behaviors, and increase motivation and engagement. Though commonly found in marketing strategies, it is now being implemented in many educational programs as well, helping educators find the balance between achieving their objectives and catering to evolving student needs [10]." While this posits the potential efficacy of gamification in educational programs, the assertion is equally as applicable in the context of training programs, which often take on similar formats of traditional educational structures where training participants are perceived as students engaging in "adult learning."

Language also plays a critical part in this regard. MESIS has worked with the World Institute for Nuclear Security (WINS) for several years now to develop the English version of their best practices guidelines into Arabic. This is not due to any shortage of Arabic language translators in Vienna where they are based, but rather, because they recognize the difference between translating and indigenizing materials. Any translator, based anywhere in the world, may be able to translate a document on nuclear security into Arabic word for word, but this does not necessarily mean that they understand the concepts themselves, or that they are able to translate them in a way that is understood by a local audience.

A. Jordan's Human Reliability Program: A Case Study

Jordan's development of a human reliability program (HRP) for employees working in its first research reactor provides an excellent case study of how an increased cultural awareness (on national, organizational and international levels) has allowed for a more effective and quick completion of the program. The interplay of the various components of cultural awareness and their contribution to the success of the program's development therefore require thorough assessment to ensure their repeated success and replicability in other instances.

On the national level, the threat perception of a country like Jordan has been traditionally outward looking; surrounded by much larger and, at times, belligerent states has meant that people may not have given sufficient attention to the threat of insiders. On an organizational level, while management has certainly long recognized the seriousness of the threat, it was not organization-wide. Accordingly, when addressing the seriousness of the insider threat and deciding how to best highlight the issue within Jordanian organizations, the seriousness of the threat had to be highlighted creatively. Through the re-development of tabletop exercises such as the Nuclear Security Insider Threat Exercise (NSITE) into Arabic, and through the presentation of case studies from other sectors in Jordan, and other countries such as the United States, the issue was able to be properly addressed. This served to generate buy-in for the need to develop an HRP and to emphasize that no country or critical facility or system, no matter how advanced, is immune to the threat of insiders.

It should be noted that, culturally speaking, there are factors that limit the threat posed by insiders; for instance, in a collective society such as Jordan, informal familial and tribal structures are critical for identifying potential insiders. Likewise, because the boundaries between professional and personal lives of employees are more blurred in collective societies, observation of behavioral anomalies by coworkers or management is much more effective than that of a Western context. The awareness of these components was critical during the development of Jordan's HRP, as it allowed for the portrayal of these issues in a culturally relevant context.

In the same vein, potentially intrusive screening required of HRPs would not be very common for civilians and could accordingly be perceived as infringing on their privacy. This problem has been overcome by frank engagement with employees and an explanation that part of the bargain of working at such a facility meant relinquishing some personal rights to privacy in favor of greater assurances of safety and security. Jordan has been blessed with stability and security in an otherwise unstable region, and this has meant that people have traditionally had an overreliance on the security establishment. Added to that is the typical stove piping that tends to happen universally between security and non-security personnel in the nuclear sector. As such, it was critical to emphasize the shared responsibility (both for civilian and security agencies) to mitigate against the issue of insiders, as it is a threat that straddles both sectors.

With the necessity of an HRP effectively communicated, there still existed other cultural factors particular to Jordan that had to be addressed. Nepotism and family connections, for example, are commonplace in Jordan when it comes to employment and labor issues. Likewise, Jordan ranks high on Hofstede's power-distance index [11], indicating that management would be required to play a key role in setting and

adhering to security standards, so that others could follow suit. Finally, it has also been important to address organizational constraints and time pressures, especially ahead of commissioning, by considering models that existed elsewhere in Jordan so as to not reinvent the wheel.

V. Conclusions

International nuclear security programs implemented in the Middle East are indispensable tools that allow the countries in the region access to knowledge and practical training that might otherwise have not been accessible, due to constraints of capital, technology, or both. To ensure the success of any programmatic engagement, however, cultural awareness must continue to be recognized and promoted as a critical component to that success. While the notion of cultural awareness has increasingly been acknowledged as an integral aspect to international relations, there is a need for further promotion and understanding of its significance. This is especially true for nuclear security engagements, when the issue is as sensitive as nuclear security, and when the program is implemented in a place as complex as the Middle East. As Jordan's experience with the development of its HRP has demonstrated, however, the presence of a credible interlocutor equipped with the necessary cultural awareness can help to overcome any of the perceived challenges and obstacles.

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VII. Authors' Bio and Contact Information

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