SMA White Paper

Blame, Sway, and Vigilante Tactics:

How Other Cultures Think Differently and Implications for Planning

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Executive Summary

The purpose of this SMA White Paper is to synthesize ideas across cognitive science and applied social science and translate their application for use in operations and planning within the span of a single document. The contributors from academic disciplines in cognitive science, applied social science, and professional backgrounds where the cultural variations play out as challenges in planning disaster management, conflict intervention, or stabilization operations each look at distinct cognitive functions that merit attention. By translating or operationalizing the research and discussing it in terms of real-world scenarios, this paper illustrates how the addition of cultural cognitive diversity research can improve planning and operations and potential methods for this integration.

This paper builds on previous SMA White Papers on the topic of culture, language, and cognitive capabilities: A Cognitive Capabilities Agenda: A Multi-Step Approach for Closing DoD's Cognitive Capability Gap (October 2017) and The Key Role of Human Geography, Culture and Language in Effective Communication (May 2017).

Planners require context in order to achieve their goals. Whether they are responding to a humanitarian crisis or developing a strategic messaging campaign, the plan includes looking at the physical terrain where the activities will occur and the populations that occupy that terrain. While planners understand that a colder or more elevated locations have implications, the capacity to similarly adapt plans and operations based on differences in the population's attributes has not been as readily integrated. We have the capability to count the number of individuals in a population that have been served by an aid program in a location. We can measure the radius of effect of an earthquake, and the time it takes to stand up operations of various sizes. Absent in these calculations is the effect on the populations where the operations take place. How will they be influenced or impacted in terms of their future behaviors, identities, and way of looking at the world? How long will this influence last and at what rate will it spread? What amount of resources it will take to achieve or maintain the salience of this impact? These assessments are not small challenges. In many ways we are talking about empathy. In this white paper, we take up the topic from the perspectives of planning and cognitive science.

Cognition refers to many mental activities including (but not limited to), perception, memory, attention, categorization, inference, reasoning, imagination, and socio-cultural belief systems. LTC Colon describes planning as problem solving, "Problem solving is a cognitive process that searches for a solution to a given problem or finds a path to reach a given goal. In essence, problem solving propels us from a present state to a future state using insight and creativity." What if this cognitive process we call 'problem solving' has as much cultural variation as language? If the populations where we work think differently than we do, our problem solving techniques may be at odds with theirs, or we may not recognize alternative planning and problem solving approaches because they seem so different from our own. Can planners break these variations down into constituent cognitive pieces that will enable training, plans, and operations?

Cognitive scientists apply rigorous methods to study variations as fundamental as the conceptualization of time, location, and creative thought used for problem solving. For example, within perception research, there is cultural diversity in perceptions of time. If your project is to build a series of clinics to deliver services and support stability, the coordination of your project may be impeded if there is a local concept of time or location you did not anticipate. Similarly, if you are trying to understand how an adversary will make decisions when their concept of creativity or

problem solving is fundamentally different, their decision-making strategy may initially seem illogical. Cultural cognitive diversity insights provide the framework to understand how each culture thinks. Applied social scientists have developed culturally specific theories and models that take a similar approach to incorporating variation to account for changing contexts. They examine localized factors and concepts providing empirical evidence for new theories that form the basis for contextual understanding. Still, these insights are not readily integrated into analysis or the planning process that focuses on physical and quantitative measures. Why? Because social science is often considered too abstract or ill-defined to be combined effectively with concrete measures and evaluations. This paper challenges that notion and describes the benefits to a planning approach that assesses cultural cognitive variations as readily as any physical measure of distance.

Each author's expertise and experience hold a key piece to the whole puzzle. The paper's three sections walk through the translation of academic insights into operational outcomes via practical field observation and use cases. Rather than look at how operating in other cultural environments poses challenges, something we already concede, authors look at discrete factors of these interactions that could be addressed, trained or planned for through the integration of cognitive science. For example, Dr. Abdul-Akeem Sadiq and Jenna Tyler outline how disaster management coordination must take cultural variation into account while LTC Colon provides the operational perspective on the current situation in post-hurricane Puerto Rico. He discusses the role of communication, sense of urgency in relation to hope and social connectedness, and resourceful problem solving. Cognitive scientist Dr. Rose Hendricks takes up the discussion of cultural variations in concepts of time and Dr. Anatoliy Kharkhurin describes variations in creativity in problem solving, specifically across American, Russian, and Iranian cultures that illustrate the body of research supporting a discrete cognitive element that planners can draw from. SFC Matthew Martin directly examines the role of narrative as the specific objective of operations calling attention to memory, tropes, and values that can be identified with attention to cultural cognitive variations.

The nine authors of this paper discussed the communication challenge across fields of expertise. Each field whether academic, applied academic, or operator, possesses skills, experience, and even vocabulary that are highly related when applied to the topic of this paper, and yet sound foreign when discussed with individuals from another field of expertise. For example, the experience of most academics in a lab did not provide an understanding of how their work was relevant to planners for the simple reason they had never been planners or operators. Operators and planners were limited by needing information that was pre-approved, trusted, and in readily useable formats requiring little time when decisions needed to happen fast. Most academic work does not fit this model and remained inaccessible to planners for this reason. Applied academics are constrained in their research to describe best practices and not necessarily pursue the creation of new knowledge to fill a gap that would support the operator or planner. In order to do this type of research, they would need the experience of the operator or planner to inform the questions in their work. Individuals like these contributors with an overlap of experience, the ability to communicate across fields of expertise, or synthesize information from multiple fields for a purpose, are rare and valuable. Our own experience sharing knowledge within this small group demonstrated the larger systemic hurdle of interdisciplinary communication that contributes to the poor integration of cognitive and other social sciences within planning and operations. Bridging this gap is essential as it will enable more effective, quick, less violent, and less expensive operations.

Because each author's experience forms a piece of the whole, the paper is divided into (3) sections that trace the aim of an integrated approach, the cognitive science suited to planning and operations, and finally applied use cases.

Part 1. This section takes the big picture view in order to describe why it is essential to integrate cultural cognitive diversity into planning, where integration has helped, and what more we can do from a planning perspective. An experienced officer with the British Army and USCENTCOM, Tim Lai suggests, "A better scientific foundation, that can corroborate or challenge the instinctive judgments of strategists, planners and operators and provide a more objective evidence base to conflicted political and policy decision-makers, would be extremely helpful." This white paper asserts that cognitive science as well as many applied social sciences have sufficient methodological rigor to be integrated alongside current quantitative measures. Dr. Moritz Schuberth continues the section from an applied social science perspective to provide an example of how the theories that inform our approach to planning and operations provide the frameworks to integrate cultural cognitive diversity from the top down into all stages of assessment, analysis, and evaluation. Finally, LTC Colon's paper describes an ongoing crisis response operation in post-hurricane Puerto Rico. He focuses on the importance of communication, cultural perceptions or time, trust, and resourcefulness or creative problem solving. These topics are discussed again in Part 2 as discrete cognitive science research areas.

Part 2. How can we break down cultural and cognitive diversity into discrete, observable topics? This section looks at the research from cognitive scientists Dr. Rose Hendricks and Dr. Anatoliy Kharkhurin who study cultural variation in topics that often affect planning such as when cultures have different concepts of time or different approaches to problem solving. A different concept of time between two cultures can cause a problem because one population may have different expectations or perceptions about length of commitments to a goal, the extent to which past grievances play a role in decision making (time horizon), or connection between events that we commonly consider cause and effect (variation on this point poses challenges to culpability/responsibility). The examples from contributors' work point to how we can scope down a broad topic such as 'culture' into more limited and empirically observable sub-topics that can both be supported in robust research and also integrated into planning and operations.

Part 3. This section brings all the pieces together with applied use cases and techniques. SFC Matthew Martin examines influence inoculation underscoring the skills necessary to leverage a combined approach. Dr. Abdul-Akeem Sadiq and Jenna Tyler draw on experience in crisis response management to provide a robust outline of lessons learned and recommendations for future operations such a trust-building and communication with local stakeholders. Dr. Gwyneth Sutherlin describes a field-tested method for integrating insights such as those discussed in this paper into future planning. The cultural and cognitive variations these authors experience with the populations in their work take a central role in how they plan, what skills they suggest are most valuable, and the ways forward they recommend. These authors describe effective methods for integrating the impact of perceptions, beliefs, and values on operations that combine physical and informational components by focusing on discrete, observable measures.

The conclusion of the contributors' pieces is the value in addressing cultural cognitive diversity throughout planning and operations. An approach that combines physical and informational domains is the most effective strategic use of our knowledge resources. The rich and robust research from cognitive scientists can support this type of integrated planning. There are already applied social scientists putting their insights to work in the field for combined civil-military and humanitarian response efforts. Experienced planners and operators are leveraging the knowledge of cultural cognitive variation to develop standardized means to bring these insights into more common practice. This SMA White Paper is one more resource to support those efforts.

Part 1.

This section takes the big picture view in order to describe why it is essential to integrate cultural cognitive diversity into planning. From the outset, each new context and environment will have new variations—what the authors describe as cultural and cognitive diversity. It is not merely a matter of western and non-western perspectives; there is a spectrum, and we can often be surprised by the types of things about which cultures think differently. The authors in this section discuss the theories and experience needed to frame a high-level approach to this type of changing environment for planners drawing from their own experience in several countries including Afghanistan, Haiti, and Puerto Rico. Populations may have different opinions, or more specifically, they may perceive, remember, or conceptualize events differently. These are cognitive functions and would be described as cultural cognitive diversity. It is critical to have rigorous science to inform our approach to planning which is susceptible to bias, as well as an approach that is adaptable to new environments maintaining focus on observable, empirical elements rather than assuming or imposing elements that may be mirroring our own cultural norms. This section looks at the broad goal of an integrated approach and what is needed to achieve this goal—a framework informed by rigorous and empirical social science. This section is followed by Part 2, which digs into examples of cognitive science research that can support a combined planning approach.

Cultural Cognitive Diversity: Translating Cognitive Science for Planning

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As the abstract to this paper acknowledges, the idea of cultural cognitive diversity is not disputed. The phenomenon is widely recognized and the value of running with the local cultural grain is well understood amongst intelligent leaders, strategists and operational planners. But their record of effectively tailoring approaches, in a way that better reflects the cognitive tendencies of a community or society they seek to influence, is patchy. It may be the staple of commercial marketing, within the bounds of a target sector and with the luxury of time for research, analysis and trial – though, even here, the record is mixed. But it has consistently proved more challenging during periods of international crisis or expeditionary military intervention, when circumstances are unfamiliar, the environment is rapidly changing, complex or chaotic, and where the demand for action is relentless and irresistible. Historically, the consequences of getting things wrong are enormous; conversely, the prize for getting them right can be definitive.

The challenge is that leaders, and the planners or operators working for them, often lack insight into the cognitive or cultural differences that are most important in the circumstances – both in the general and in the specific – or how they are likely to manifest themselves in the particular or prevailing conditions they face. The concern is that if one gets things wrong at the start of a project or intervention, with a strategic, operational or tactical approach that is at odds with the cultural cognitive norms of the milieu, real damage can be done to local perceptions. This is generally difficult to repair and magnifies the challenge of achieving the effects that were originally intended.

There are many reasons why aligning plans and activities to cultural cognitive differences is difficult. It takes an intimate cultural familiarity to properly understand a society, which is not easily acquired without a deep, broad and persistent immersion. Even on the doorstep of Western Europe, during the 1990s Balkans crisis, a neighbouring trans-Atlantic international community failed to grasp the protagonists' psyche, leading to repeated miscalculations that prolonged conflict and extended the suffering of populations caught in the cross-fire. The thirty-five years during which Yugoslavia's constituent nationalist identities and behavioural tendencies had been suppressed and hidden from view under Josip Broz Tito's rule will have contributed to the West's lack of understanding – and, of course, the dissonance that existed across the community of international interventionists will not have helped either – but the consequences, of which the siege of Sarajevo and the slaughter at Srebrenica are stark reminders, are now etched in the annals of history.

The challenge of building and maintaining an adequate cultural insight into communities of interest is all but insurmountable. Easier, perhaps, during the Soviet era of bi-polar politics, when opposing outlooks – and coercive communist politics – brought cognitive attitudes and behaviours to some level of convergence within each block, even down to a local level. In such circumstances, governments and other entities could focus their resources on understanding what mattered, cf armies of Kremlinologists and their ilk. It has been much more difficult for those same actors to cover the bases in an early 21st century context of multi-polar politics, post-financial crisis economics and atomizing societies, amidst which hardened attitudes towards market-base

globalisation, anti-establishment populism and radical religious ideology – to name only a few contemporary destabilizing influences – transcend traditional societal boundaries and permeate communities. Nor are these trends likely to abate in the short-term; on the contrary, the echo-chamber phenomenon of information-age news consumption, aggravated by manipulations of 'the truth', which have become the mainstream characteristic of a 'post-factual' era, promise to deepen societal divisions and discord in ways that will be hard to predict or track.

The traditional focus of intelligence services has not generally prioritised social or behavioural themes. As Mike Flynn observed in Fixing Intel: A Blueprint for Making Intelligence Relevant in Afghanistan1, a singular focus upon the enemy can lead to an inadequate understanding of the context or the people, which is fundamental to operating in complex environments. To the extent that their efforts do – increasingly – extend beyond traditional roles, intelligence services also have a mixed record for drawing effectively upon open sources, which contain rich seams of knowledge. Beyond the real issues of capacity, purpose and priority is a somewhat cultural skepticism over the reliability of academic research, which can extend to positive distrust when foreign expertise is involved. United States Central Command's own Combined Strategic Analysis Group is a case in point. Essentially an in-house think tank comprising an impressively diverse, experienced and highly qualified international staff, and with a strong record for predicting trends and developments in CENTCOM's strategic and operating environments before they are recognised or acknowledged by others, its analysis rarely gains the traction it deserves. Meanwhile, few other avenues or processes, outside intelligence channels, have been successfully developed in government to inject or absorb external data at the point of need or under the pressure of time.

Some of these challenges may be mitigated, at least in part, by modern developments in data analytics, including the use of big data and artificial intelligence. But it is likely that more could be achieved with a better alignment of intent between officials seeking insight and those outside government who are well-placed to provide it. For reasons already described – amongst others, no doubt – the specific needs of strategists, planners and operators for cognitive, social and anthropological understanding has generally been rather poorly articulated. As the potential for, and the volume of, AI-based analysis grows, governments may find benefit in the greater collaborative capacity that a closer partnership with academia and other open-source research communities could bring. A clearer demand signal would certainly provide a better steer for the exploratory data analysis from which relevant statistical hypotheses can be derived, and would provide a focus for confirmatory analysis to test them.

Efforts are already afoot, and this paper, together with the broader work of the United States Department of Defense Strategic Multi-layer Assessment are tangible manifestations. But how best to proceed in the realm of understanding cultural cognitive diversity? It will not be news to many, for example, that time and outlook are two things that are often misunderstood or mishandled.

On time, it is generally the case that so-called democracies are less patient than autocratic or tribal societies. That impatience can be driven from the top, by elected politicians needing to demonstrate results – i.e., change - to a restless and demanding electorate, but is also reflective of that very impatience, manifested in grass-roots voting behaviours. Autocrats and tribal leaders, by contrast, favour the status quo and value constancy. So it is that the Taliban's apocryphal challenge to the West that "you have the watches but we have the time" rings so true.

On outlook, it is difficult for First World interventionists, who typically rely upon popular domestic support for their actions, to advance solutions that appear to their constituents to be at odds with

their own societal norms – however imperfect – in terms of transparent, representative and accountable government and human rights compliance, gender equality and the protection of minorities. Hence do their objectives and methods often satisfy domestic sensitivities far more than the needs of the communities they are intended to help. Meanwhile, seemingly ungrateful would-be beneficiaries view them as dissonant impositions that de-stabilise their societies by displacing local values and disempowering traditional power structures – often in favour of factional opportunists.

None of this is ground-breaking news, and these two vignettes do not pretend to be exhaustive, but they are patterns that repeat themselves with tedious consistency – the de-Baathification of post-Saddam Iraq and the centralisation of government in Afghanistan being two recent examples. It is an uncomfortable truth that the early 21st century is an era where genuine cultural and cognitive insight is rare – even France, a relatively activist post-colonial presence across Françeafrique, would not claim all the answers there. It is an age where the summary imposition of paternalistic grand strategies, such as the mass resettlement of Chinese squatters during the 1950s British Malaya campaign, are unpalatable. And it is a time when old certainties – or the received wisdoms upon which planning assumptions have so often been based – are increasingly under pressure. A better scientific foundation, that can corroborate or challenge the instinctive judgments of strategists, planners and operators and provide a more objective evidence base to conflicted political and policy decision-makers, would be extremely helpful. One that could predict, generically and in detail, the cultural and cognitive factors that will be most important in an emerging situation, according to some hierarchical or scalar design, and that reflected the dynamism of modern socio-political evolution, would be invaluable. And government, military and intelligence Establishment capable of, and inclined to, draw upon such knowledge would be the icing on the cake.

Divergent Worldviews among Peacebuilders: Evidence from Haiti

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Organizational Culture in Post-Conflict Peacebuilding

Cultural differences can have an important impact on international peacebuilding interventions in post-conflict contexts. To begin with, tensions might derive from different cultural backgrounds of those interacting in the environment in which peacekeeping operations take place, such as between local populations and international interveners (Lemay-Hébert, 2011; Mac Ginty, 2010), or between troops from different countries which make up the peacekeeping force (Duffey, 2000; Rubinstein, 2008). On top of tensions originating from the cultural background in which individuals were brought up, interveners have gone through processes of enculturation in distinct professional contexts which have shaped the way they make sense of the world. For instance, professionals from a wide variety of backgrounds but who have all been working as Disarmament, Demobilization and Reintegration (DDR) experts in sub-Saharan Africa acquired a very different lens through which to conceive of solutions to the challenge posed by Haiti's urban armed groups as compared to those previously working on urban violence in the Latin American context (Schuberth, 2015b).

Apart from cultural differences between regions, nations, or communities, there are thus important variances in the organizational culture of different types of actors involved in post-conflict peacebuilding interventions (Rubinstein, Keller, & Scherger, 2008). These distinct organizational cultures provide the context within which attitudes are shaped, interpretations are constructed and decisions are made (M. N. Barnett & Finnemore, 1999). In order to prevent misunderstanding and to improve coordination, it is thus important for interveners to understand how their own organizational culture differs from that of other actors with whom they need to collaborate in pursuit of their objectives (Duffey, 2000).

In order to improve our understanding of different organizational cultures among interveners, this article aims to uncover the radically different worldviews within the organizational field of peacebuilding, which result in very different perceptions of the factors contributing to peace and conflict (Hellmüller, 2013). More specifically, using peacebuilding interventions in post-earthquake Haiti as a case study, this article identifies coercive, cooperative, and substitutive worldviews, on the basis of which different types of interveners pursue strategies towards non-state armed groups (NSAGs) that are incompatible with one another (Paris, 2009). The central argument is that far from forming a homogenous organizational field, post-conflict peacebuilding can be grouped into three different subfields—stabilization, conflict resolution, and statebuilding—each guided by starkly contrasting institutional logics and contradicting worldviews.

Organizational Fields and Institutional Logics

Organizational fields have been described as "a community of organizations that partakes of a common meaning system and whose participants interact more frequently and fatefully with one another than with actors outside of the field" (Scott, 1994, pp. 207-208). While peacebuilding can

be seen as one distinct organizational field, the different subunits that comprise this field are characterized both by commonalities and by startling differences. The overarching organizational field of peacebuilding can be subdivided into the three subfields of stabilization, conflict resolution, and statebuilding, each of which operates according to a distinct institutional logic. The three logics can be positioned along a continuum ranging from hawkish stabilization operations in the case of coercive peacebuilding to dovish conflict resolution in the case of cooperative peacebuilding, whereby substitutive peacebuilding interventions in the form of statebuilding constitute a *via media*.

Competing worldviews or institutional logics help explain why different subfields within the same organizational field of peacebuilding choose sometimes diametrically opposed strategies vis-à-vis NSAGs. According to Thornton and Ocasio (1999, p. 804), institutional logics "provide the formal and informal rules of action, interaction, and interpretation that guide and constrain decision makers in accomplishing the organization's tasks and in obtaining social status, credits, penalties, and rewards in the process." Thus, institutional logics are associated with "different interpretations over the operationalization of peacebuilding [that] lead to differences over appropriate strategies and priorities" (M. Barnett, Kim, O'Donnell, & Sitea, 2007, p. 44). The different institutional logics within post-conflict peacebuilding—coercive, cooperative, or substitutive—hence limit the range of strategies from which interveners within the different organizational subfields of peacebuilding can choose when dealing with NSAGs.

To begin with, the coercive logic distinguishes sharply between friends and enemies and favors the use of force against NSAGs. The cooperative logic, by contrast, emphasizes communication with and inclusion of the Other, hence advocating dialogue with NSAGs. While these two worldviews entail direct contact with NSAGs—either in the form of confrontation or cooperation—the third logic calls for indirectly replacing the functions NSAGs fulfill by way of building a viable and modern state apparatus that renders obsolete their political, economic, and security-related dimensions. This substitutive logic focuses on legal-rational authority, bureaucratic efficiency, and the state's monopoly on the legitimate use of force.

The United Nations Stabilization Mission in Haiti (MINUSTAH)

The three worldviews clearly came to the fore during a period of six months of fieldwork I conducted in Haiti in the second half of 2013. Drawing on empirical evidence gathered through semi-structured interviews, the following sections reveal the coercive, cooperative, and substitutive logics behind different peacebuilding strategies towards NSAGs in the context of the United Nations Stabilization Mission in Haiti (MINUSTAH).

In Haiti, it emerged soon after the creation of MINUSTAH in 2004 that in the absence of a peace agreement, traditional DDR was inapplicable to urban NSAGs in Port-au-Prince, who were perceived to be a more serious source of insecurity than the disbanded army. After ex-President Préval failed with his attempt to buy the cooperation of urban gangs to disarm voluntarily, he authorized MINUSTAH to launch a coercive stabilization campaign in order to take back control over gang-ruled neighborhoods of Port-au-Prince. Subsequently, MINUSTAH changed its strategy from DDR to Community Violence Reduction, a community-focused approach based on the substitutive logic of statebuilding that has since been praised as a viable alternative for future peacekeeping operations. At the same time, numerous interveners, including Concern Worldwide and the Brazilian NGO Viva Rio, employed cooperative strategies towards NSAGs based on dialogue and inclusion.

Coercive peacebuilding in Haiti

The coercive worldview underlying stabilization strategies is particularly well epitomized by the phrase "we must kill the bandits, but it will have to be the bandits only, not everybody." These words were uttered by Lieutenant-General Augusto Heleno Ribeiro Pereira of Brazil, Force Commander of MINUSTAH, during a radio interview discussing military raids in neighborhoods of Port-au-Prince that were under control of NSAGs (Terrall, 2004). The phrase is a textbook example of the Manichean duality between good and evil, whereby the Other—the 'bandit'—is dehumanized and reduced to his capacity to be killed. The black-and-white duality evident in Ribeiro's utterance shows that the complex historical trajectory of Haiti's armed groups, the grim realities of Port-au-Prince's slums, the multiple dimensions of NSAGs and the genuine grievances that contributed to their rise are blended out and their members are seen as an enemy that must be eradicated.

At the same time, Ribeiro's stated objective that "it will have to be the bandits only, not everybody" who need to be killed has not been achieved; innocent bystanders have been victimized as well (Schuberth, 2016a). Accordingly, MINUSTAH and the Haitian National Police (HNP) have been heavily criticized by human rights defenders for civilian casualties caused by muscular interventions in the neighborhoods of Bel Air and Cité Soleil. A number of interviewees within the organizational subfield of stabilization mentioned difficulties when it comes to restricting the use of force because of the specific training security forces receive. Within the organizational subfield of stabilization, recruits are socialized into different institutional subcultures through specialized training, which plays an important role in determining their behavior and attitude during interventions. As the former military police chief of Rio de Janeiro – now working with Viva Rio in Haiti – explained to me with regard to Rio's special police unit BOPE:

> the training for special police is not training to protect and serve. It's not to help people on the streets. No! It's for crises, not for ordinary situations. […] either you give up and come out, or we will kill you. So you have to keep in mind that you are here to kill him if it is necessary. They cannot have the same training [as ordinary police officers]. The special police do not want to save anyone. They just want to save victims, not the hostage takers.[1]

The same is true for peacekeeping forces, which are made up of military officers trained to fight industrial wars rather than to police communities (Smith, 2005).

Cooperative peacebuilding in Haiti

Representing an antipode to the binary coercive logic of exclusion and confrontation, the logic of conflict resolution emphasizes inclusion of the Other and intersubjective communication in the form of dialogue. For instance, the approach of the Brazilian NGO Viva Rio towards NSAGs in Haiti is underlining "the role of mediation, dialogue and communication to neutralize prejudice and misjudgements, which are often the source of conflict" (Yazdani, Bercovitch, & Charles-Voltaire, 2014, p. 461). Viva Rio's flagship initiative in Haiti since 2007 has been the signing of peace accords locally known as Tambou Lapè, which are tailored towards reducing incidents of armed violence by nurturing "a culture of non-violence and accountability" through cooperation with gang leaders (Moestue & Muggah, 2009, p. 58).

For every month without violent deaths occurring in a specific neighborhood, children living in the area can take part in a lottery draw from a 'peace drum' (Tambou Lapè in Creole) with the chance of

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[1] Author interview with Colonel Ubiratan Angelo, Pétion-Ville, November 2013.

winning scholarships covering the expenses for one school year (Schuberth, 2017b). When no violent death occurs during a two-month period, gang members are allotted scholarships to study a subject of their own choice (Schuberth, 2016b). According to Viva Rio's director Rubem César Fernandes, "[t]he idea is to stress that in peace everybody wins and with violence everybody loses" (Gatto Boueri, 2007). Thus, Viva Rio's purposeful cooperation rewards non-violence and allows investing in the education of gang members with the prospect of providing them with alternative ways to make a living.

Apart from Viva Rio, elements of the cooperative logic are clearly evident in the words of Louis-Henri Mars, the director of the Haitian peacebuilding agency Lakou Lapè, who emphasized the importance of:

> using non-violent tools to get people to know each other, appreciate each other and be able to work with each other towards a common goal. We think that the security of those who have ultimately does not depend on their bodyguards, [police, or] international military backup, but depends on the understanding they have with the poor. There has to be a win-win situation instead of a win-lose situation. So we try to encourage dialogue at different levels of society [and] we seek to be very inclusive. And there's always an empty chair [for] the person of the group that should be part of the dialogue but is not here yet.[2]

The Peacebuilding Intervention of Concern Worldwide and Glencree International, which led to the foundation of Lakou Lapè, is guided by the cooperative worldview in that it aims to overcome the antagonism between different socio-economic parts of the population, for instance by organizing a retreat in the mountains with gang leaders and parts of the private sector. Yet, concerns have been raised that such cooperative efforts could actually incentivize at-risk youth to join NSAGs if gang leaders are turned into community leaders or are perceived to benefit from their criminal past, for instance by getting the opportunity to travel to conferences in New York and Europe —an unachievable dream for many of Haiti's urban poor (Schuberth, 2017a).

Substitutive peacebuilding in Haiti

Such criticism shows the difference between the cooperative logic of conflict resolution, on one hand, and the substitutive logic of statebuilding, on the other hand. Defending cooperative strategies vis-à-vis Haiti's urban armed groups, Louis-Henri Mars explained to me that:

> the situation in Haiti will not be transformed by building roads, by establishing electricity grids, by power plants. [...] Infrastructure is necessary, it helps to get to dialogue, it helps to make people communicate. But the fundamental transformational tool is the human being to human being contact.[3]

Quite the contrary, the institutional logic of substitutive peacebuilding clearly came to the fore during an interview with the Community Violence Reduction (CVR) section of MINUSTAH:

> what this country [does] not need is mediators, a dialogue, no! This is not the problem. If two gangs are fighting, they are fighting over the control of something; [...] they don't fight because they have a political view. It's not a matter of mediation. You cannot mediate with

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[2] Author interview with *Lakou Lapè*, Port-au-Prince, October 2013.

[3] Author interview with *Lakou Lapè*, Port-au-Prince, October 2013.

> *poverty—you have to solve poverty. You cannot mediate with unemployment—you have to provide jobs. You cannot mediate with a lack of water.[4]*

In the same vein, the World Bank (2006, p. vii) argued that "the focus should be on the restoration of core state functions—the provision of the public goods of security and the rule of law, infrastructure and basic services." In this respect, MINUSTAH's CVR program aims to work "with marginalized neighborhoods to create economic and social opportunities in view to extract them from violence and the influence of gangs" (MINUSTAH, 2012, p. 3). This objective is to be achieved, *inter alia*, through labor-intensive rehabilitation of community infrastructure which aim to provide a temporary alternative to criminality and unemployment.

Interviewees working for the CVR section repeatedly stressed the importance of underlying factors such as the structural limitations of the urban ecosystem at the margins of which NSAGs tend to emerge (Schuberth, 2015a). By way of example, CVR's Regional Coordinator explained to me that "the overall context of marginalized neighborhoods facilitates the rapid emergence of gangs. The political context, the question of poverty, and the absence of the state. [...] So in our program we try to analyze the totality of these factors that are at the root of this violence."[5]

Comparison of the worldviews and institutional logics

Given the worldwide proliferation of NSAGs comparable to those in Haiti, coercive, cooperative, and substitutive logics inform interveners' strategies to deal with such groups in numerous settings, within or without the context of peacekeeping operations (Schuberth, 2014). As Table 1 below illustrates, each organizational subfield is informed by its distinct institutional logic or worldview which can be differentiated along numerous criteria. The coercive worldview sees the use of force as the primary cause of peace, the cooperative worldview advocates dialogue and consensus as main causes of peace, and the substitutive Weberian worldview promotes the creation of viable and modern state institutions as the primary cause of peace.

Table 1: Institutional logics of different organizational subfields of peacebuilding

Org. Subfield	Stabilization	Conflict Resolution	Statebuilding
Inst. Logic	Coercive	Cooperative	Substitutive
Cause of Peace	Power/Force	Dialogue/Consensus	State Institutions
Human Nature	Inherently bad	Inherently good	Contingent on Institutions
Time Frame	Short-term	Medium-term	Long-term

The coercive and cooperative logics can also be presented as antipodes with directly opposing propositions with regard to human nature. In a Manichean manner, the coercive logic divides the world into friend and enemy and promotes the use of physical force when dealing with the supposedly dangerous Other. The cooperative worldview, by contrast, stresses the importance of interpersonal communication, deliberative consensus-building, and the inclusion of the Other from the bottom-up. In short, the two worldviews are hardly compatible with one another. At the same time, the assumptions of the substitutive logic with its emphasis on state institutions are not that

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[4] Author interview with CVR section of MINUSTAH, Port-au-Prince, October 2013.

[5] Author interview with CVR section of MINUSTAH, Port-au-Prince, October 2013. Translated from French by author.

diametrically in contradiction with the coercive and cooperative logics. What is distinctive about the substitutive worldview is the underlying premise about the relationship between structure and agency, from which results a different locus to which strategies vis-à-vis NSAGs are directed. To statebuilders, the question is less how to interact directly with NSAGs, but rather how to modify the structure in such a way that it channels the action of individual agents in the desired direction.

Hence, at the most basic level concerning human nature, the substitutive logic proposes a *via media* between the pessimistic view of coercion and the optimistic view of cooperation. From this point of view, human beings are inherently social and communicative – as the cooperative worldview suggests. But as part of a group, they are also prone to clash with other groups that are considered as enemy, just as the coercive worldview postulates. The key to peaceful coexistence thus lies in the way each social group organizes itself and establishes institutions to deal with disputes in an orderly manner.

In the direct aftermath of violent conflict, it is often imperative to complement and precede the long-term strategy of statebuilding with more immediate solutions to the pressing political, socio-economic, and security issues caused by the continued existence of NSAGs. Thus, substitutive peacebuilding is often seen as the continuation of short-term coercive and medium-term cooperative peacebuilding initiatives. Moreover, while the institutional logics are deeply ingrained within each organizational subfield, it is important to note that each subfield might play a supportive role to further the objectives of another subfield. This does not mean, however, that actors of one organizational subfield alter their own worldviews when supporting actors with other institutional logics.

To give an example, even though stabilization operations regularly contain development or humanitarian components, for instance in the form of quick-impact projects, their role remains largely instrumental: to further the institutional logic of stabilization rather than that of conflict resolution or statebuilding. Likewise, depending on the overall security environment, conflict resolution professionals might depend on military accompaniment for their own safety, and certain aspects of statebuilding activities, such as Security Sector Reform, draw on military expertise, for instance in order to collect, store, and dispose of weapons. Yet, in both cases, the role of the military is instrumental for the achievement of cooperative or substitutive aims, hence disassociated from its own coercive logic.

Conclusion

In order to contribute to our understanding of what drives interveners' strategies towards NSAGs, this article laid out the starkly contrasting logics and contradicting worldviews informing contemporary peacebuilding actors. In a nutshell, it was argued that there are three subfields within the organizational field of peacebuilding, each operating according to different worldviews and institutional logics—the coercive logic of stabilization, the cooperative logic of conflict resolution, and the substitutive logic of statebuilding.

Better cooperation and coordination between different peacebuilding actors are needed precisely because of their often-colliding institutional logics and worldviews. Having conflict resolution practitioners negotiate with the same NSAG that is being fought by military actors—while statebuilders are trying to strengthen the reach of state institutions into the very territory under control of the NSAG—is not only messy, it is counter-productive at best and at worst it threatens the life of community members and interveners alike. Considering the serious implications of

simultaneously advancing mutually undermining strategies vis-à-vis NSAGs, distinguishing between the different worldviews is not merely an exercise in semantics.

List of References

Barnett, M., Kim, H., O'Donnell, M., & Sitea, L. (2007). Peacebuilding: What Is in a Name? *Global Governance, 13*(1), 35-58. doi: 10.5555/ggov.2007.13.1.35

Barnett, M. N., & Finnemore, M. (1999). The Politics, Power, and Pathologies of International Organizations. *International Organization, 53*(4), 699-732. doi: doi:10.1162/002081899551048

Duffey, T. (2000). Cultural Issues in Contemporary Peacekeeping. *International Peacekeeping, 7*(1), 142-168. doi: 10.1080/13533310008413823

Gatto Boueri, A. (2007, 23 May 2007). Haiti's Peace Drums, *Comunidade Segura*. Retrieved from http://www.comunidadesegura.org/pt-br/node/33930

Hellmüller, S. (2013). The Power of Perceptions: Localizing International Peacebuilding Approaches. *International Peacekeeping, 20*(2), 219-232. doi: 10.1080/13533312.2013.791570

Lemay-Hébert, N. (2011). The Bifurcation of the Two Worlds: Assessing the Gap Between Internationals and Locals in State-building Processes. *Third World Quarterly, 32*(10), 1823-1841. doi: 10.1080/01436597.2011.610578

Mac Ginty, R. (2010). Hybrid Peace: The Interaction Between Top-down and Bottom-up Peace. *Security Dialogue, 41*(4), 391-412. doi: 10.1177/0967010610374312

MINUSTAH. (2012). MINUSTAH Fact Sheet. Port-au-Prince: MINUSTAH.

Moestue, H., & Muggah, R. (2009). Social Integration Ergo Stabilization: Assessing Viva Rio's Security and Development Programme in Port-au-Prince (pp. 73). Rio de Janeiro: Viva Rio.

Paris, R. (2009). Understanding the 'Coordination Problem' in Postwar Statebuilding. In R. Paris & T. D. Sisk (Eds.), *The Dilemmas of Statebuilding: Confronting the Contradictions of Postwar Peace Operations* (pp. 53–78). London and New York: Routledge.

Rubinstein, R. A. (2008). *Peacekeeping Under Fire: Culture and Intervention*. Boulder, CO: Paradigm Publishers.

Rubinstein, R. A., Keller, D. M., & Scherger, M. E. (2008). Culture and Interoperability in Integrated Missions. *International Peacekeeping, 15*(4), 540-555. doi: 10.1080/13533310802239857

Schuberth, M. (2014). The Impact of Drug Trafficking on Informal Security Actors in Kenya. *Africa Spectrum, 49*(3), 55-81.

Schuberth, M. (2015a). The Challenge of Community-based Armed Groups: Towards a Conceptualization of Militias, Gangs, and Vigilantes. *Contemporary Security Policy, 36*(2), 296-320. doi: 10.1080/13523260.2015.1061756

Schuberth, M. (2015b). A Transformation from Political to Criminal Violence? Politics, Organised Crime and the Shifting Functions of Haiti's Urban Armed Groups. *Conflict, Security & Development, 15*(2), 169-196. doi: 10.1080/14678802.2015.1030950

Schuberth, M. (2016a). Beyond Gang Truces and *Mano Dura* Policies: Towards Substitutive Security Governance in Latin America. *Stability: International Journal of Security & Development, 5*(1), Art. 17. doi: http://doi.org/10.5334/sta.450

Schuberth, M. (2016b). Growing the Grassroots or Backing Bandits? Dilemmas of Donor Support for Haiti's (Un)Civil Society. *Journal of Peacebuilding & Development, 11*(1), 93-98. doi: 10.1080/15423166.2016.1146565

Schuberth, M. (2017a). Disarmament, Demobilisation and Reintegration in Unconventional Settings: The Case of MINUSTAH's Community Violence Reduction. *International Peacekeeping, 24*(3), 410-433. doi: 10.1080/13533312.2016.1277145

Schuberth, M. (2017b). To Engage or Not to Engage Haiti's Urban Armed Groups? Safe Access in Disaster-stricken and Conflict-affected Cities. *Environment and Urbanization, 29*(2), 425-442. doi: 10.1177/0956247817716398

Scott, W. R. (1994). Conceptualizing Organizational Fields: Linking Organizations and Societal Systems. In H.-U. Derlien, U. Gerhardt & F. W. Scharpf (Eds.), *Systemrationalität und Partialinteresse* (pp. 203-221). Baden-Baden: Nomos.

Terrall, B. (2004, 17 November 2004). Lula's Troops in Haiti, *CounterPunch*. Retrieved from http://www.counterpunch.org/2004/11/17/lula-s-troops-in-haiti/

Thornton, P. H., & Ocasio, W. (1999). Institutional Logics and the Historical Contingency of Power in Organizations: Executive Succession in the Higher Education Publishing Industry, 1958-1990. *American Journal of Sociology, 105*(3), 801-843. doi: 10.1086/210361

World Bank. (2006). Social Resilience and State Fragility in Haiti: A Country Social Analysis. Washington, DC: The World Bank.

Yazdani, M., Bercovitch, D., & Charles-Voltaire, J. (2014). Knowledge Transfer on Urban Violence: From Brazil to Haiti. *Environment and Urbanization, 26*(2), 457-468. doi: 10.1177/0956247814544884

Cognitive Diversity in a Hurricane Catastrophe

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In the aftermath of Hurricane Maria in Puerto Rico, many in the continental United States and perhaps the world thought that just great amounts of aid to the island would solve the catastrophe. However, the biggest challenge was not the amount of aid but the way in which aid could be distributed and disseminated, coupled with the lack of communication infrastructure and an understanding of the islanders. Perhaps what the federal government agencies did not account for, was the way people in the embattled island processed information, interconnectedness and ingenuity. Heuristics during disaster relief will be affected by the way leaders, diasporas and other external assistance use cognitive diversity to their advantage to communicate to their population.

According to a Pew Research Center report, in 2013 there were 5.1 million people in the United States of Puerto Rican decent and there are just over 3.1 million people on the island (López & Patten, 2015). The connection that islanders have with their families and loved ones in the United States forms a connective tissue through every form of communication, especially through social media. Just as Hurricane Maria approached Puerto Rico, Puerto Ricans in both the U.S. and the island took to social media platforms to begin communicating with each other and provide reassurance and comfort. As the hurricane started to beat down on the island, connection to family members broke down as if a limb had been severed from the body, but that did not stop the diaspora as they turned to one another to formulate ways to help during the inevitable relief efforts. If resourcefulness is a virtue of problem solving, Puerto Ricans in the U.S. and even abroad took to their local Puerto Rican enclaves to organize and put together aid packages in containers to send to different parts of the island.

It was bad enough to watch news reports or social media on Wednesday, September 21st, of Hurricane Maria ripping through an island where relatives and friends lived. What made it worse was not knowing how their loved ones had fared (Faucett, 2017). Perhaps, not being able to communicate was the hardest part of the entire ordeal. Maricarmen Romero-Vazmina, a resident of Sarasota, Florida, said she was "freaking out, because I was able to talk with my mom five minutes yesterday and have not been able to communicate again" (Faussett, 2017). For the people of Puerto Rico having a strong sense of connection is as important as breathing. However, as connection started to reemerge with the media reports and social media, the environment became a breeding ground for confusion and disinformation due to disrupted communication flow and the fact that the telecommunication infrastructure was down in much of the island. In the wake of the emergency, U.S. and international telecom companies mounted massive efforts to help alongside government and aid agencies. AT&T, T-Mobile, Cisco, and Facebook had teams in Puerto Rico (Rogers, 2017). The interconnectedness of the Puerto Rican Diaspora with islanders transcends to a deeper state of human connection. Whether it is during a disaster or moment of celebration, Puerto Rican interconnectedness will be a major contributor to a better future for the island.

Problem solving is a cognitive process that searches for a solution to a given problem or finds a path to reach a given goal. In essence, problem solving propels us from a present state to a future state using insight and creativity. In Puerto Rico, even as some assistance arrived, residents in the

island learned to improvise without power or running water, especially those living in remote areas. Following the days after the catastrophic hurricane, many on the island took matters into their own hands—to do what islanders do best, solve problems. For example in the capital, several men took to the streets to direct traffic because there were no traffic lights, a lady used her own car to take her mother to the hospital, and others took it upon themselves to clear debris from the streets and help others do the same with what they had (Dickerson, 2017).

Seemingly, Puerto Ricans had been solving problems after the catastrophic storm, which for the people living in the center of the island, solving problems were life or death decisions. In the town of Utuado, in the mountainous region of the island, the hurricane swept the only bridge and way to get in contact with the outside world. Meanwhile, two men in their sixties relied on their ingenuity and innate problem solving skills to cross the chest-high river to go to the nearest hardware store and buy parts to build a pulley that now spans the gap where the bridge once was, and attach a shopping cart, after removing its legs and wheels, which they have been using to transfer food, water and supplies across the divide (Dickerson, 2017). Problem solving is a mental process that allows us to be transported from a present state to a future state based on insight and creativity. In the case of post-Hurricane Maria, many Puerto Ricans living in the island used their innate problem solving skills during a survival event to enable their access to basic necessities and continue to thrive.

Information processing is at the heart of cognitive psychology, which sees the individual as a processor of information, seemingly the same way that a computer takes in information and follows an operating system to produce an output (McLeod, 1970). To produce an output or a reaction based on information, human beings depend on the flow of such information and its sensory acquisition. In the aftermath of Hurricane Maria, not having access to information took a high toll on the way people on and off the island reacted to the emergency. Without a way to communicate, many people felt hopeless and the feeling that things were not getting better worsened everyday (Becker, 2017). As the sense of hopelessness became real, people felt confused, nervous and perhaps depressed because of the perception of how things were not getter better in a timely manner. Plus, the severity of the communication breakdown was so dire that Puerto Ricans outside the island had more information than those inside the island (Brodwin, 2017). People outside the island also became nervous and anxious due to not being able to communicate with their loved ones in a timely manner. Likewise, local governments became anxious as they did not have a timely way to provide aid and the right type of aid to their people. However, as people saw telecommunications improve they felt safer and relieved as the perception increased that things were getting better (Becker, 2017).

Improvements in the telecommunications infrastructure gave way for people to quickly communicate with their loved ones on the island and also to the outside world by using group chats, and social media platforms such as Facebook and Instagram. For many, not being able to talk and communicate has been worse than not having power or water; for the millions of young people accustomed to being connected 24/7, the situation was surreal and without internet, people were relying on printed news, word of mouth, and the radio which in most places had limited access. Despite the limited access to information days after the hurricane, people began to flood the internet with photos, messages, and videos informing the world what was happening in their corner of the island and to request islanders on the mainland to coordinate aid.

Despite confusion and lack of information from the island, coupled with a high sense of empathy and solidarity, the people on the mainland flooded an already weak postal service and coordinated with city halls across major states, namely New York and Florida, in an effort make up for the

seemingly slow government response. As a result, much of the coordination bogged down the postal system even more, causing delays on deliveries to their loved ones, which exacerbated the anxiety and despair of the senders.

The Government of Puerto Rico (GoPR) did not take advantage of a well-connected diaspora, the ingenuity of its people to solve problems and the way information is currently processed to provide a better response to the people of Puerto Rico. This miscalculation will impact recovery efforts in the long run. Going forward, the GoPR should leverage the interconnectedness of its people with those in the United States and issue a call to action in an effort to organize private aid and donations ahead of time as well as manage expectations of a diaspora that will be neurotic without being in contact with their loved ones.

Finally, the recommendation is for the GoPR to establish an internal network of local guides that could help federal and local agencies in identifying more vulnerable areas which would help in solving major problems more quickly due to the innate insight of the population.

Bibliography

Becker, R. (2017, September 29). Retrieved November 10, 2017, from The Verge: https://www.theverge.com/2017/9/29/16372048/puerto-rico-hurricane-maria-2017-electricity-water-food-communications-phone-internet-recovery

Brodwin, E. (2017, September 27). Retrieved November 12, 2017, from Business Insider: http://www.businessinsider.com/puerto-rico-people-conditions-days-no-power-water-hurricane-maria-2017-9

Dickerson, C. (2017, October 17). *www.thestar.com*. Retrieved November 2, 2017, from https://www.thestar.com/news/world/2017/10/17/stranded-puerto-ricans-rely-on-ingenuity-to-survive-after-hurricane-maria.html

Faussett, R. (2017, September 21). *For Puerto Ricans Off the Island, a Struggle to Make Contact After Maria*. Retrieved from https://www.nytimes.com/2017/09/21/us/puerto-rico-communication-maria.html

Kirby, J. (2017, October 1). *How Puerto Rico Struggled to Communicate After Hurricane Maria*. Retrieved November 6, 2017, from Daily Intelligencer: http://nymag.com/daily/intelligencer/2017/10/how-puerto-rico-struggled-to-communicate-after-maria.html

Kulatunga, U. (2010). *Impact of culture towards disaster risk reduction.* Retrieved November 6, 2017, from http://usir.salford.ac.uk/15891/1/Impact_of_Culture_towards_Disaster_Risk_Reduction.pdf

López, G., & Patten, E. (2015, September 15). *Hispanics of Puerto Rican Origin in the United States, 2013*. Retrieved November 8, 2017, from www.pewhispanic.org: http://www.pewhispanic.org/2015/09/15/hispanics-of-puerto-rican-origin-in-the-united-states-2013/

McLeod, S. (1970, January 1). Retrieved November 12, 2017, from Simply Psychology: https://www.simplypsychology.org/information-processing.html

Metro. (2017, September 4). Retrieved November 13, 2017, from Metro: https://www.metro.pr/pr/noticias/2017/09/04/tormentas-huracanes-pasaron-puerto-rico.html

Michael Brown: Hurricane Maria highlights lack of long-term planning in disaster relief. (2017, September 20). Retrieved November 8, 2017, from TheHill: http://thehill.com/opinion/energy-environment/351631-michael-brown-hurricane-maria-highlights-lack-of-long-term

Newkirk II, V. R. (2017, September 26). *How Puerto Ricans on the Mainland Are Getting News From Relatives*. Retrieved November 5, 2017, from TheAtlantic.com: https://www.theatlantic.com/politics/archive/2017/09/how-puerto-ricans-on-the-mainland-are-getting-news-from-relatives/541062/

Rogers, A. (2017, October 10). In Puerto Rico After Hurricane Maria, No Power Means No Telecommunications. Retrieved January 04, 2018, from https://www.wired.com/story/in-puerto-rico-no-power-means-no-telecommunications/

Part 2.

This section looks at the research from cognitive scientists who study cultural variation in topics that often affect planning such as when cultures have different concepts of time or different approaches to problem solving. For instance, the previous paper by LTC Xavier Colon stresses the importance of communication. The next two articles examine the types of cognitive science research that can be used by planners and operators to prepare or evaluate in similarly chaotic communication environments. Time is a persistent element of the urgency, the perception of connectedness through communication, and the sense of hope or responsiveness during the crisis as reported by LTC Colon. Dr. Rose Hendricks gives a brief discussion of research on conceptualization of time across cultures. There is a large body of research that planners and operators can draw from in this area. Dr. Anatoliy Kharkhurin shares research on creativity with applications for problem solving. The cognitive processes for decision making and problem solving are complex, but also discrete and well-studied. This means there is a wealth of research to explore and integrate into planning and operations that help anticipate cultural cognitive variation. This is also a rich area for further study.

Cross-Cultural Differences in Conceptualizations of Time

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Conceptualizing and communicating about time are among the most central components of making and executing plans successfully. Yet they are far from trivial; even when all parties speak a single language, misunderstandings are common. For example, the phrases like *next Wednesday's meeting was moved forward.* After encountering this phrase, some people believe the new meeting should be Friday, while others are adamant that it is on Monday (Boroditsky, 2000).

The task of communicating about time is made substantially more challenging when it must be done by speakers of different languages – not just because languages have different words and grammatical rules, but because speakers of different languages, who are inevitably members of different cultures, have different ways of thinking about time.

Cross-cultural variation in thought about time can have important consequences for communication, particularly as it relates to making and executing plans. This paper discusses three factors that can lead to differences in the way members of different cultures conceptualize time (cultural practices, values, and patterns in language) and includes suggestions for applying such research to cross-cultural communications and planning endeavors.

Space-Time Associations

Time is an abstract concept – we can't see or touch it, so, as with many other abstract concepts, we often associate it with a more concrete one – specifically, with the domain of space. This association is evident in our language, for example when we say we're looking *forward* to an event in the future, or when we put our disagreements *behind* us or experience a deadline *approaching*. Our associations between space and time are also evident in the extensive use of artifacts, such as clocks, hourglasses, calendars, and timelines, as well as in our gestures that accompany speech about time, all of which systematically associate space and time (Casasanto & Jasmin, 2012; Walker & Cooperrider, 2015).

But there are many ways in which time can map onto space. For one, we can unpack the concept of *time*, which can include past vs. future relationships, events relative to now; earlier vs. later relationships, events relative to each other; or durations (i.e., minutes, years, etc.). *Space*, too, is multi-dimensional, providing opportunities to associate different temporal concepts with lateral (left-right), sagittal (front-back), or vertical dimensions.

There are a number of factors that lead people from different cultures to adopt different associations between space and time, such as patterns in reading and writing direction, cultural values, and metaphors in language. Regardless of the source of cross-cultural variation in how people think about time, **an awareness and understanding of this manifestation of cognitive diversity can immensely improve cross-cultural collaboration and planning.**

Cultural Practices

People across the world think differently about time as a result of cultural practices like reading, writing, and using tools. For instance, extensive research has shown that experience reading and

writing in a consistent direction (i.e., from left to right, in English) gives rise to a consistent "mental timeline" (for English speakers, conceptualizing earlier events to the left of later events; Tversky, Kugelmass, & Winter, 1991). Members of communities that read from right to left, such as Hebrew speakers, correspondingly conceptualize time as flowing from right to left (Tversky et al., 1991, Fuhrman & Boroditsky, 2010). Similarly, Chinese speakers from Taiwan, who (at the time of the study) tended to read and write vertically (from top to bottom) were more likely to hold a vertical mental timeline, conceptualizing earlier events above later ones, than Chinese speakers from mainland China, where text tends to be written from left to right (Bergen & Chan Lau, 2012).

Recommendations for Cross-Cultural Planning

Since cultural practices give rise to cross-cultural differences in mental timelines, it is important for collaborators to consider the tools used to depict time in the planning context. For example, a timeline might be interpreted in contradictory ways by different people, such as by speakers of Hebrew, Arabic, or Farsi, all of which are written from right to left, in contrast to English speakers, who read from left to right. With this in mind, members of cross-cultural collaborations can work to make their communications less ambiguous, by including precise information (for example, expressing exact dates instead of phrases like "move up one day," expressing plans in multiple forms (for example, in language and a diagram), or explicitly verifying with collaborators that plans are clear.

Temporal Focus

An individual's conceptualization of time can also be shaped by their culture's (or subculture's) temporal focus, or the extent to which a group is past-oriented or future-oriented. For example, Moroccans tend to focus on the past, in contrast with many Europeans and Americans (Mateo, 2010). Moroccans emphasize older generations, tend to observe ancient rituals, and value tradition. Consistent with this cultural tendency, Moroccans conceptualize the *past* as in front of them (despite metaphors in language that refer to the future as in front) to a greater extent than Spaniards, members of a future-oriented culture do (de la Fuente et al., 2014).

Further experiments showed that temporal focus can shape conceptualization of time even within a culture – again, those who tend to focus on the past are more likely to think of the past as in front of them than those who focus on the future (de la Fuente et al., 2014). Specifically, older Spaniards (on average, 76 years old), who tended to be past-oriented, showed a greater tendency to think of the past as in front of them than younger Spaniards (on average, 26 years old and generally future-focused) did.

Recommendations for Cross-Cultural Planning

Planners should bear in mind that the extent to which individuals focus on future plans and the extent to which they value historical information in making plans differs across cultures and subcultures. Further, an individual's basic conceptualization of time (whether they imagine the future as in front or behind them) can vary cross-culturally as a function of temporal focus. Keeping this information in mind and explicitly discussing the extent to which collaborators are focusing on the past and future while planning will likely minimize misunderstandings and contribute to plans that are balanced in their past and future influences.

Metaphors in Language

As mentioned previously, across languages, people tend to use spatial terms (metaphors) when talking about time, but the specific parts of space associated with different temporal concepts varies across languages. For example, while English metaphors tend to refer to the future as in front of the body (looking *forward* to an event *ahead* of us) and the past behind, in Aymara, a South American

language, speakers refer to the past as in front of them and the future as behind, in both language and in their gestures (Núñez & Sweetser, 2006). And in Chinese, earlier events can be said to be "up" and later ones "down" (Scott, 1989).

What's more, research has revealed that speakers of different languages don't just *talk* about time differently, but they also *think* about it differently, in ways that are consistent with patterns in language. Evidence for this claim comes from a variety of experiments that demonstrate that English speakers implicitly associate forward space with the future and backward space with the past. For instance, English speakers are faster to make decisions about events when doing so involves moving their arm or pushing a slider forward to indicate that an event is in the future and pulling their arm or slider back towards the body to indicate that an event is in the past than for the reverse mapping (Sell & Kaschak, 2011; Ulrich et al., 2012). English speakers are also faster to make past-future judgments to words shown in front of an image of a person for future concepts and behind for past concepts (Torralbo et al., 2006). In addition, English speakers are faster to step forward when they hear words related to the future than the past and faster to step backward for the past than the future (Rinaldi et al., 2016). In a deliberate gesture task, they gesture to the front when talking about the future and the back when talking about the past (Casasanto & Jasmin, 2012). Together, these studies demonstrate that English speakers think about time as associated with space in ways that are consistent with the spatial metaphors they use to talk about time.

Also consistent with patterns in language, Chinese speakers think of earlier events as being above later ones to a greater extent than English speakers do (Boroditsky, Fuhrman, & McCormick, 2010; Fuhrman et al., 2011; Miles, Nind, & Macrae, 2011; Gu et al., 2014; Gu et al., 2017; Lai & Boroditsky, 2013; Yang & Sun, 2015). Further research has shown that patterns in language and thought about time aren't just *correlated*, but in fact, learning new systems of spatio-temporal metaphors leads people to adopt metaphor-consistent patterns of temporal thought (Hendricks & Boroditsky, 2017). Metaphors in language can *cause* people to associate space and time accordingly in mind.

Recommendations for Cross-Cultural Planning
Armed with the knowledge that patterns in language can shape the way people conceptualize time, people and organizations collaborating cross-culturally can be more mindful of potential differences in spatio-temporal metaphors that might give rise to ambiguities or misunderstandings. For example, talking about rescheduling a meeting by indicating that it has been pushed "to the right" is unambiguous among members of the United States Military (Hendricks, Bergen, & Marghetis, 2017), but it should not be taken for granted that such phrases will have the same meaning when communicated to members of other cultures.

Summary & Conclusions
Cultural practices like reading and writing patterns, values prioritizing the past or future, and systems of metaphors in language (among other factors) contribute to how we think about time. In turn, different ways of conceptualizing time have downstream consequences for behavior, communication, and planning strategies. As such, cross-cultural communication and planning can be enhanced by an appreciation of diversity in thought about time. Specifically, communicators should be mindful of potential differences in collaborators' conceptions of time, which could lead to ambiguities and misunderstandings. Instead of assuming that all people think about time the same way, conscientious communicators can make efforts to clarify their messages. This can be done by using multiple modalities (i.e., communicating a plan in language and through diagrams) and explicitly asking collaborators if plans have been communicated effectively.

References

Bergen, B. K., & Chan Lau, T. T. (2012). Writing Direction Affects How People Map Space Onto Time. *Frontiers in Psychology*, *3*. https://doi.org/10.3389/fpsyg.2012.00109

Boroditsky, L. (2000). Metaphoric structuring: Understanding time through spatial metaphors. *Cognition*, *75*(1), 1–28.

Boroditsky, L., Fuhrman, O., & McCormick, K. (2010). Do English and Mandarin speakers think about time differently? *Cognition*, *118*(1), 123–129. https://doi.org/10.1016/j.cognition.2010.09.010

Casasanto, D., & Jasmin, K. (2012). The hands of time: Temporal gestures in English speakers. Retrieved from http://www.degruyter.com/view/j/cog.2012.23.issue-4/cog-2012-0020/cog-2012-0020.xml

de la Fuente, J., Santiago, J., Roman, A., Dumitrache, C., & Casasanto, D. (2014). When you think about it, your past is in front of you: How culture shapes spatial conceptions of time. *Psychological Science, 25*(9), 1682-1690.

Fuhrman, O., & Boroditsky, L. (2010). Cross-Cultural Differences in Mental Representations of Time: Evidence from an Implicit Nonlinguistic Task. *Cognitive Science*, *34*(8), 1430–1451. https://doi.org/10.1111/j.1551-6709.2010.01105.x

Fuhrman, O., McCormick, K., Chen, E., Jiang, H., Shu, D., Mao, S., & Boroditsky, L. (2011). How Linguistic and Cultural Forces Shape Conceptions of Time: English and Mandarin Time in 3D. *Cognitive Science*, *35*(7), 1305–1328. https://doi.org/10.1111/j.1551-6709.2011.01193.x

Gu, Y., Mol, L., Hoetjes, M., & Swerts, M. (2014). Does Language Shape the Production and Perception of Gestures? *Proceedings of CogSci2014*, 547–552.

Gu, Y., Mol, L., Hoetjes, M., & Swerts, M. (2017). Conceptual and lexical effects on gestures: the case of vertical spatial metaphors for time in Chinese. *Language, Cognition and Neuroscience*, 1–16. https://doi.org/10.1080/23273798.2017.1283425

Hendricks, R.K., Marghetis, T., & Bergen, B.K. (2017). When metaphors in the mind become metaphors in the mouth: Documenting the emergence of a new system of linguistic metaphors for time. *Proceedings of the 39th Annual Conference of the Cognitive Science Society.* Austin, TX: Cognitive Science Society.

Hendricks, R. K., & Boroditsky, L. (2017). New Space-Time Metaphors Foster New Nonlinguistic Representations. *Topics in Cognitive Science.* https://doi.org/10.1111/tops.12279

Lai, V.T. and Boroditsky, L. (2013) The immediate and chronic influence of spatio-temporal metaphors on the mental representations of time in English, Mandarin, and Mandarin-English speakers. Frontiers in Psychology 4:142. doi: 10.3389/fpsyg.2013.00142

Mateo, J. (2010). Salud y ritual en Marruecos: Concepciones del cuerpo y prácticas de curación [Health and ritual in Morocco: Conceptions of the body and healing practices]. Barcelona, Spain: Bellaterra.

McGlone, M. S., & Harding, J. L. (1998). Back (or forward?) to the future: The role of perscpective in temporal language comprehension. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, *24*(5), 1211.

Miles, L. K., Nind, L. K., & Macrae, C. N. (2010). Moving Through Time. *Psychological Science*, *21*(2), 222–223. https://doi.org/10.1177/0956797609359333

Miller, G. A., & Johnson-Laird, P.N. (1976). Language and perception. Cambridge, MA: Harvard University Press.

Núñez, R. E., & Sweetser, E. (2006). With the future behind them: Convergent evidence from Aymara language and gesture in the crosslinguistic comparison of spatial construals of time. *Cognitive Science*, *30*(3), 401–450.

Rinaldi, L., Locati, F., Parolin, L., Bernardi, N. F., & Girelli, L. (2016). Walking on a mental time line: Temporal processing affects step movements along the sagittal space. *Cortex*, *78*, 170–173. https://doi.org/10.1016/j.cortex.2016.02.013

Scott, A. (1989). The vertical dimension and time in Mandarin. Australian Journal of *Linguistics, 9*, 295–314.

Sell, A. J., & Kaschak, M. P. (2011). Processing time shifts affects the execution of motor responses. *Brain and Language*, *117*(1), 39–44. https://doi.org/10.1016/j.bandl.2010.07.003

Torralbo, A., Santiago, J., & Lupiáñez, J. (2006). Flexible conceptual projection of time onto spatial frames of reference. *Cognitive Science*, *30*(4), 745–757.

Tversky, B., Kugelmass, S., & Winter, A. (1991). Cross-cultural and developmental trends in graphic productions. *Cognitive Psychology, 23*, 515-557.
Ulrich, R., Eikmeier, V., de la Vega, I., Ruiz Fernández, S., Alex-Ruf, S., & Maienborn, C. (2012). With the past behind and the future ahead: Back-to-front representation of past and future sentences. *Memory & Cognition*, *40*(3), 483–495. https://doi.org/10.3758/s13421-011-0162-4

Walker, E., & Cooperrider, K. (2015). The Continuity of Metaphor: Evidence from Temporal Gestures. *Cognitive Science*, n/a-n/a. https://doi.org/10.1111/cogs.12254

Yang, W., & Sun, Y. (2015). A monolingual mind can have two time lines: Exploring space-time mappings in Mandarin monolinguals. *Psychonomic Bulletin & Review*. https://doi.org/10.3758/s13423-015-0964-7

Creative Problem Solving Strategies Differ Across Cultures

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In the contemporary world, creativity and innovation assume key positions in political, economic, and social spheres. Policymakers recognize creative education as a potential investment in their country's future. Business organizations place innovation among the major leadership skills. They recognize the importance of creativity in problem solving. Creative problem solving helps you redefine the problems and opportunities you face, come up with new, innovative responses and solutions, and then take action. In the words of Albert Einstein, "Imagination is more important than knowledge. For while knowledge defines all we currently know and understand, imagination points to all we might yet discover and create." The tools and techniques of creative problem solving make the process engaging and collaborative. It not only helps you create better solutions, it creates a positive experience that facilitates the adoption of new ideas.

Therefore, a growing body of governmental policies and scientific and corporate training programs aim at nurturing creative potential. Starting in the 1990s, legislators from around the globe (Australia, Canada, China, Europe, Hong Kong, the Middle East, and Singapore) began to endorse initiatives facilitating the development of creative potential (Craft, 2007). For example, in the communication from the Commission of European Communities (2008), the role of creative education in the progress of the European Union was stressed explicitly: "To achieve this it is crucial fully to develop the potential for innovation and creativity of European citizens. The education element of the knowledge triangle 'research-innovation-education' should be strengthened, starting early – in schools" (p. 3). These initiatives resulted in a substantial amount of scientific and semi-scientific educational programs and popular and commercial training programs aimed at fostering creativity in organizations and individuals.

In this regard, it is important to recognize that those policies and programs developed in one particular political and sociocultural context may not be effectively applied in the others. Why? To answer this question, you need to understand how these contextual factors might change the concept of creativity in different cultures. The findings of historiometric research with eminent people (e.g., Simonton, 1994) and cross-cultural psychometric research (e.g., Kharkhurin & Samadpour Motalleebi, 2008; Lubart & Sternberg, 1998; Niu & Sternberg, 2001) suggest that the variations in the manners of socialization, degrees of self-perception and self-expression, and education and social conduct might modulate the differences in creative behavior of the representatives of different cultures. Hence, economic, political, social, and cultural aspects of the environment can have a considerable influence both on levels of creative potential and on how creativity is evaluated. These aspects determine and shape the concept of creativity, which in turn may influence the manner in which creative potential is apprehended and incarnated.

No doubt, creative activity is inherent to human nature and therefore it earns recognition in all areas of human enterprise across all cultures. However, the manifestation of creative potential might differ in various cultural groups. This can be illustrated with the West-East dichotomy. Literature distinguishes between the West and the East with respect to individualism and collectivism (Triandis, 1975, 1977) or with respect to an independent and interdependent

perspective (Markus & Kitayama, 1991). This distinction is grounded upon the degree of subordination of an individual's personal goals to the goals of some collective (Triandis, Leung, Villareal, & Clack, 1985). Western societal values comprise a person's unique qualities, initiative, and achievement, whereas Eastern values place more emphasis on consensus with the community, on being in line with the others. People in Western cultures are independent and focus on internal thoughts (Niu & Sternberg, 2001). The existential problem of the Westerner evolves around expressing oneself and becoming different from others. The celebrity phenomenon intensively nurtured by the Western mass media (especially, in the US) perfectly illustrates this. Physical appearance, successful career, wealth, scandal – no matter how you acquired it – earns recognition. You can become a celebrity from your professional activity, following appearances in the media, but also by committing a mass murder. Anything that makes you stick out from the mass is considered a virtue. On the contrary, people in the Eastern cultures are interdependent and focus on fitting themselves in with others. Their life credo is linked with subordination to the needs and requirements of the community. For example, the studies of the Iranian social system showed that independent, non-traditional ways of thinking do not earn a high opinion. In Iran, individuals with very divergent views and behaviors are observed as unusual or strange, as opposed to interesting (Zandpour & Sadri, 1996). Moreover, humility is very characteristic of the communication patterns of most Iranians. They seldom feel comfortable in taking credit for their achievements, good taste, or choice and tend to become embarrassed as a result of excessive praise.

These differences manifest themselves in different perceptions of creativity. The Western individualistic ideology considers non-standard ways of thinking as a virtue of creative behavior, whereas creative endeavor in the Eastern, more collectivist cultures would constitute an adherence to sociocultural norms and traditions. The Western view of creativity emphasizes individual characteristics, which facilitate the unique, creative endeavor of a person. In contrast, the Eastern perspective considers the social and moral values of creative engagement, often in relation to society. For instance, the historical and philosophical emphases on collective interest encourage the Chinese to follow the crowd rather than to defy the crowd (cf. Sternberg & Lubart, 1995). In general, the latter element is missing from the Eastern notion of creativity. For example, in the context of Iranian society, defying the crowd may be seen as less valuable than making contributions to the society and sometimes defying the crowd may even be seen as strange rather than as creative (Kharkhurin & Samadpour Motalleebi, 2008).

These considerations suggest that originality in thinking, that is, a tendency to produce unique solutions different from the common ones, is largely adopted within Western ideals and less pervasive in the Eastern frame of thought. However, both scientific and corporate environments readily adopted originality as a key component of creative thinking. We consider people as creative if they produce ideas that are different from those of others. At the very core of creative problem solving discussed above, we find elements of newness, innovation, and novelty. This resulted in the development of a variety of creativity assessment methods and techniques, which emphasize originality in thinking (see Kaufman, Plucker, & Baer, 2008; Plucker & Makel, 2010). These assessment tools reveal a bias toward typically Western creative behavior and a discard of creative principles inherent to non-Western cultural groups.

A growing number of studies showing the superior creative performance of the Western participants compared with their Eastern counterparts (e.g., Jaquish & Ripple, 1985; Jellen & Urban, 1989; Kharkhurin & Samadpour Motalleebi, 2008; Niu & Sternberg, 2001) could fall a victim to this conceptual flaw. These performance differences could be attributed to the distinction in the perception of the concept of creativity *per se* in these two cultural groups and to the cultural biases of the tests of creativity that adopt a Western culture specific definition of creativity. For example, a

study conducted in the US, Russia, and Iran (Kharkhurin & Samadpour Motalleebi, 2008) demonstrated that the Iranians revealed lower ability to generate original solutions to a problem in comparison with Americans and Russians. In light of the Western perspective on creativity, Iranians' lower originality scores could be attributed to their prescribed ritualistic patterns of behavior. These behavioral patterns stem from the tradition of *taarof*, an Iranian form of civility emphasizing both deference and social rank. *Taarof* governs distinctly Iranian styles of negotiation and hospitality. For example, a shopkeeper may initially refuse to quote a price for an item, suggesting that it is worthless. *Taarof* obliges the customer to insist on paying, up to three times, before a shopkeeper finally quotes a price and real negotiation can begin. Due to this habit, it can be argued Iranians tended to present the most common traditional answers instead of looking for original solutions to creative problems. However, when cultural perspective on the concept of creativity is taken into account, a different explanation can be advanced. Due to the humility inherent to the Iranian frame of mind discussed above, it is entirely possible that Iranians scored lower on originality, because they did not perceive this attribute as an important constituent of creative behavior.

Thus, understanding of cultural differences in creative thinking is paramount for nurturing creativity and innovation. It is evident that vastly increased human mobility, communication technology, and the accelerating integration of the world economy abolish geographic boundaries and bring together people from different economic, political, social, and cultural backgrounds. These differences need to be carefully considered when developing policies and training and assessment programs nurturing creativity and innovation.

Commission of European Communities (2008). Improving competences for the 21st century: An agenda for European cooperation on schools *Communication from the Commission to the European Parlament, the Council, the European Economic and Social Committee and the Committee of the Regions*. Brussels.

Craft, A. (2007). Possibility thinking in the early years and primary classroom. In A.-G. Tan (Ed.), *Creativity: A handbook for teachers* (pp. 231-249). Singapore: World Scientific.

Jaquish, G. A., & Ripple, R. E. (1985). A life-span developmental cross-cultural study of divergent thinking abilities. *International Journal of Aging & Human Development, 20*, 1-11.

Jellen, H. G., & Urban, K. K. (1989). Assessing creative potential world-wide: The first cross-cultural application of the Test for Creative Thinking - Drawing Production. *Gifted Education International, 6*, 78-86.

Kaufman, J. C., Plucker, J. A., & Baer, J. (2008). *Essentials of creativity assessment*. Hoboken, NJ: John Wiley & Sons Inc.

Kharkhurin, A. V., & Samadpour Motalleebi, S. N. (2008). The impact of culture on the creative potential of American, Russian, and Iranian college students. *Creativity Research Journal, 20*, 404-411.

Lubart, T. I., & Sternberg, R. J. (1998). Creativity across time and place: Life span and cross-cultural perspective. *High Ability Studies, 9*, 59-74.

Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review, 98*, 224-253.

Niu, W., & Sternberg, R. J. (2001). Cultural influences on artistic creativity and its evaluation. *International Journal of Psychology, 36*, 225-241.

Plucker, J. A., & Makel, M. C. (2010). Assessment of creativity. In J. C. Kaufman & R. J. Sternberg (Eds.), *The Cambridge handbook of creativity.* (pp. 48-73). New York, NY: Cambridge University Press.

Simonton, D. K. (1994). *Greatness: Who makes history and why*. New York: Guilford Press.

Sternberg, R. J., & Lubart, T. I. (1995). *Defying the crowd: Cultivating creativity in a culture of conformity*. New York: Free Press.

Triandis, H. C. (1975). Social psychology and culture analysis. *Journal for the Theory of Social Behaviour, 5*, 81-106.

Triandis, H. C. (1977). Theoretical framework for evaluation of cross-cultural training effectiveness. *International Journal of Intercultural Relations, 1*, 19-45.

Triandis, H. C., Leung, K., Villareal, M. J., & Clack, F. L. (1985). Allocentric versus idiocentric tendencies: Convergent and discriminant validation. *Journal of Research in Personality, 19*, 395-415.

Zandpour, F., & Sadri, G. (1996). Communication in personal relationships in Iran: A comparative analysis. In W. B. Gudykunst, S. Ting-Toomey & T. Nishida (Eds.), *Communication in personal relationships across cultures.* (pp. 174-196). Thousand Oaks, CA: Sage Publications, Inc.

Part 3.

This section brings all the pieces together into current use cases and techniques. Authors operationalize the cultural and cognitive diversity research for use in their work. Influence inoculation and concepts of trust are discussed by authors with experience in military operations and disaster management planning. After discussing when and how to apply cultural cognitive diversity to their respective work, authors also make recommendations for how to learn from best practices. Increasing education and training for all skills associated with describing, analyzing, and evaluating cultural cognitive diversity for planning is highly recommended.

Cultural and Cognitive Diversity: Digging through Haiti's Earthquake Rubble in Search of Lessons for the United States

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Introduction

This paper uses the January 12, 2010, Haiti Earthquake as a case study to discuss how the lack of cultural and cognitive diversity can undermine the effectiveness of humanitarian action. In addition, this paper identifies a set of recommendations to help the U.S. government and humanitarian aid agencies in the U.S. be more culturally and cognitively competent when they respond to future international disasters.

Cultural and Cognitive Diversity

Within the disaster management context, cultural diversity refers to when individuals and organizations involved in the disaster management process differ along a variety of dimensions such as nationality, race, ethnicity, social status, language, religion, beliefs, customs, behaviors, and norms. Cognitive diversity refers to when individuals and organizations involved in the disaster management process differ in terms of their knowledge, skills, abilities, etc. When individuals and organizations are culturally and cognitively competent, they not only recognize that these cultural and cognitive differences exist, but are still able to function effectively (Cole & Zhuang, 2011).

When responding to international disasters, it is crucial for the U.S. Department of State, U.S. military and other U.S. agencies and aid actors to have a strong cultural and cognitive understanding of the affected country prior to deployment. When U.S. humanitarian actors are culturally and cognitively conscious to carry out response and recovery activities in a particular country, they will be able to empathize, build trust, and communicate better with the citizens of the disaster stricken country. As a result, the humanitarian intervention will be more effective and efficient. Conversely, a lack of cultural and cognitive sensitivity could undermine response and recovery efforts (Coles & Zhuang, 2011). For example, a lack of understanding of cultural and cognitive differences can result in a number of challenges for the U.S., including:

- Mistrust among the various response agencies (Schulz & Heigh, 2009)
- Less effective use of resources due to miscommunication and misunderstandings (Cole & Zhuang, 2011)
- Disruptions in foreign aid (Ruhe, 2017)
- Poor community relations as a result of actual or perceived loss of personal and group identity, community cohesion, and cultural heritage (Tierney & Oliver-Smith, 2012)
- Increased entropy (Comfort, Sciliano, & Okada, 2011)

- Slower recovery times (Cole & Zhuang, 2011; Ruhe, 2017; Tierney & Oliver-Smith, 2012)

Case Study: Haiti Earthquake

Haiti, one of the poorest nations in the world, has experienced political instability, violence, and natural disasters (Brattberg & Sundelius, 2011; Sadiq, 2014). Haiti has also suffered significant challenges related to education and employment (Fordyce, Sadiq, & Chikoto, 2012; Sadiq, 2014). In fact, its unemployment rate remains around 40% and only half of all school-age children attend school (Klose & Webersik, 2010). Because of these conditions, official development agencies and international organizations continue to classify Haiti as a fragile state. Haitians speak mainly French and/or Creole, and about 95% of the population is black, with 5 % being mulatto and white (Central Intelligence Agency (CIA), 2017).

On January 12, 2010, at approximately 4:53 p.m., a 7.0 magnitude earthquake struck 15 miles southwest of Port-au-Prince, the capital of Haiti. The extremely violent shaking lasted approximately 35 seconds (McEntire et al., 2012). After the initial earthquake, the country experienced roughly 59 aftershocks with a magnitude of 4.5 or higher (United States Geological Survey (USGS), 2011). The earthquake killed roughly 316,000 people and resulted in over $11 billion in property damage, making this earthquake the most devastating natural disaster in Haiti's history (USGS, 2011). The following paragraphs discuss how issues related to cultural and cognitive diversity affected the response to and recovery from the 2010 Haiti Earthquake.

1. Death and Burial Practices

Cultural norms in Haiti determine death and burial practices. The Haitian culture is based on a combination of Roman Catholicism and Voodoo beliefs, which is why burials in Haiti are often accompanied by large celebrations (Gupta & Sadiq, 2010; McEntire, Sadiq, & Gupta, 2012). Dayan (1995) captures the importance of funerals in Haiti by noting that: "If the disposal of dead slaves was a careless deed that marked irrevocable inhumanity, funeral rites in independent Haiti became central to both the living and the dead. The deceased do not worry about their future life but fear that they might not be properly served by the living" (p. 264). Unfortunately, as resources to carry out routine identification and disposition during the Haiti Earthquake quickly became overwhelmed, the Government of Haiti carried out limited death and burial services. Further, the Government of Haiti exacerbated the situation by issuing a directive for mass burial without proper identification or ceremonies (Sadiq, 2014; World Health Organization (WHO), 2010). Identifying and properly disposing of deceased individuals in the aftermath of the Haiti Earthquake is important to reduce emotional stress, worry, and the risk of nightmares (Sadiq, 2014; WHO, 2010). Identification is also important in other cultures. For example, a woman is unable to marry another person unless she obtains a death certificate that indicates that her husband is dead (she would not be able to remarry if her husband is missing) (Gupta & Sadiq, 2012). Identification is also important from a legal and financial standpoint. For instance, without a death certificate, the family of the victim may not be able to receive compensation from the government or insurance firms (Gupta & Sadiq, 2010).

2. Miscommunication and Misunderstanding

Previous studies suggest that differences in cultural norms among international agencies and nongovernmental organizations, separate national organizations, Haitian national organizations, and the broader Haitian population resulted in miscommunication and misunderstanding of roles and responsibilities in the aftermath of the 2010 Haiti Earthquake (e.g., Comfort, Sciliano, & Okada, 2011). For example, while the U.S. military operated in a project-driven mode and focused on

identifying problems, developing solutions, and mobilizing resources, humanitarian organizations operated under the United Nations (UN) structure and focused on building consensus, encouraging participation, and serving their organizational mission as opposed to the Haitian population (Comfort, Sciliano, & Okada, 2011). The heterogeneity among these groups resulted in miscommunication and misunderstanding among response agencies, and seriously limited the efficiency and effectiveness of their operations (Comfort, Sciliano, & Okada, 2011).

3. Coordination and Collaboration

A major challenge affecting agency coordination and collaboration in the aftermath of international disasters is dealing with language barriers (Rencoret et al., 2010; Sadiq & Tyler, 2017). For example, during the response to the Haiti Earthquake, some humanitarian and international aid actors could not speak French or Creole, the two most popular languages in Haiti. In addition, most of the UN clusters adopted English as the major language (Inter-Agency Standing Committee, 2010). This not only resulted in significant communication problems (Rencoret et al., 2010), but also serious coordination issues, as response agencies could not communicate with one another or with the victims (Sadiq & Tyler, 2017). Another key factor in improving collaboration between humanitarian agencies and victims is trust. In a recent study conducted after the Haiti Earthquake, Remington and Ganapati (2016) found trust to be a prerequisite to collaboration between displaced Haitians and aid workers.

4. Using Techniques for Developed Countries in a Non-Developed Country

While the U.S. and other developed countries' disaster management operations have significantly advanced in recent years through improved equipment, communication, and processes, developing countries typically have not yet adopted such advancements. Hence, when developed countries like the U.S. employ advanced measures in developing countries like Haiti, they are often an unsustainable, temporary fix (Cole & Zhuang, 2011). Because the Haiti Earthquake had a significant impact on the Government of Haiti, the U.S. military and other aid agencies served in roles that were typically occupied by the Government of Haiti (Cole & Zhuang, 2011). By assuming this role, the US along with other international aid and humanitarian organizations employed strategies and approaches that the Government of Haiti could not sustain.

5. Cultural Diversity: Voodoo beliefs

Although voodoo became an official religion in Haiti in 2003, it is widely practiced by both Catholics and Protestants, and it part of the cultural backgrounds of Haitians (CIA, 2017; Métraux, 1958). *Voodoo* stems from another word, *Fon* that means spirit (WHO, 2010). In times of great tragedies like the 2010 earthquake, Haitians typically find solace in voodoo (WHO, 2010). Voodoo is both a religion and a form of health care system that allows Haitians the ability to prevent, diagnose, and treat health-related problems (WHO, 2010). In order to be able to interpret illnesses, an individual would have to establish a relationship with the spirit world of the ancestors, and be a victim of a spell through magic or sorcery (WHO, 2010). The voodoo priests have a wealth of knowledge of voodoo and are well-respected and powerful individuals in Haiti (WHO, 2010). Individuals that practice voodoo do not divulge information about their voodoo beliefs to others outside of their tradition such as international aid agencies or foreign countries (WHO, 2010). In addition, Haitians interpret tragedies like the earthquake as resulting from a lack of connection with the spiritual world of their ancestors. As such, Haitians attributed mental health problems in the aftermath of the earthquake to a supernatural force because of their voodoo beliefs (WHO, 2010). Any meaningful humanitarian response from the U.S. should recognize the importance and relevance of voodoo beliefs, and their potential impact on the effectiveness of the humanitarian action.

Recommendations

Require Culture and Cognitive Diversity Training

The U.S. should emphasize the importance of flexibility, empathy, and respect when responding to international disasters. In addition, U.S. agencies and departments in charge of humanitarian action should employee diverse individuals from different cultures. The U.S. agencies can then dispatch them as response coordinators to disaster-affected countries matching their cultural background and expertise. The UN has a similar initiative—making sure that UN emergency response teams represent different languages and cultures (Baker & Chikoto, 2004). The U.S. should emulate this important strategy.

Collaborate with Local Actors during the Recovery Phase

U.S. humanitarian actors should collaborate with local actors such as governments, traditional leaders, religious leaders (e.g., voodoo priests), nongovernmental organizations, and civil society in the disaster stricken country. Establishing effective and credible partnerships with these local actors can help the community recover in more sustainable and culturally appropriate ways (Coles & Zhuang, 2010). In addition, such partnerships can improve trust and collaboration during the response and recovery stages, and help build a solid partnership for future humanitarian actions.

Conduct More International Level Exercises

The U.S. should conduct exercises with other countries to understand better their roles and responsibilities as well as those of other participants before, during, and after an international disaster (Sadiq & Tyler, 2017). Although, the U.S. conducts training exercises with other nations like South Korea (military exercises) and Nigeria (Incident Command System) (Lapierre, 2011; Sadiq, 2012), what is needed are training and exercises that focus on understanding the cognitive and cultural diversity implications for humanitarian action. As a product of the exercise, the U.S. could develop useful cultural and cognitive factsheet of the partner country, and make them available to U.S. humanitarian workers.

References

Baker, J., & Chikoto, G. (2004). Final report - CARE International's humanitarian response to the Darfur crisis real time evaluation (RTE). Atlanta, Georgia: CARE.

Brattberg, E., & Sundelius, B. (2011). Mobilizing for international disaster relief: Comparing U.S. and EU approaches to the 2010 Haiti earthquake. *Journal of Homeland Security and Emergency Management*, *8*(1), 1–13.

Central Intelligence Agency (CIA). (2017). The world factbook: Haiti. https://www.cia.gov/library/publications/resources/the-world-factbook/geos/ha.html Accessed 11 Nov 2017.

Coles, J., & Zhuang, J. (2011). Decisions in disaster recovery operations: a game theoretic perspective on organization cooperation. *Journal of Homeland Security and Emergency Management*, *8*(1).

Comfort, L. K., Siciliano, M. D., & Okada, A. (2011). Resilience, entropy, and efficiency in crisis management: the January 12, 2010, Haiti earthquake. *Risk, Hazards & Crisis in Public Policy*, *2*(3), 1-25.

Dayan, J. (1995). *Haïti, History and the Gods. In: After Colonialism: Imperial Histories and Postcolonial Displacements.* Princeton: Princeton University Press. 66-97.

Fordyce, E., Sadiq, A. A., & Chikoto, G. L. (2012). Haiti's emergency management: A case of regional support, challenges, opportunities, and recommendations for the future. FEMA, US Department of Homeland Security. Retrieved from https://training.fema.gov/hiedu/downloads/compemmgmtbookproject/comparative%20em%20book%20-%20chapter%20-%20haiti's%20emergency%20management%20system.doc

Gupta, K., & Sadiq, A. A. (2010). *Responses to mass-fatalities in the aftermath of 2010 Haiti earthquake*. Natural Hazards Center.

Inter-Agency Standing Committee (IASC). (2010). Response to the Humanitarian Crisis in Haiti Following the 12 January 2010 Earthquake: Achievements, Challenges, and Lessons to be Learned. Tranblemannte 2010 nan peyi Ayiti. IASC.

Klose, C. D., & Webersik, C. (2010). Long-term impacts of tropical storms and earthquakes on human population growth in Haiti and the Dominican Republic. *Nature Precedings*. Retrieved from http://precedings.nature.com/documents/4737/version/1

Lapierre, Daniel P. (2011). "Pandemic Disaster Response Exercise Kicks Off in Lagos, Nigeria." *U.S. Africa Command*. Retrieved from http://www.africom.mil/media-room/article/8666/pandemic-disaster-response-exercise-kicks-off-in-l

Métraux, A. (1958). *Le Vaudou Haïtien*. Paris: Gallimard.

McEntire, D. A., Sadiq, A. A., & Gupta, K. (2012). Unidentified bodies and mass-fatality management in Haiti: a case study of the January 2010 earthquake with a cross-cultural comparison. *International Journal of Mass Emergencies and Disasters*, *30*(3), 301–327.

Remington, C., & Ganapti, N. E. (2016). A skills mismatch in post-earthquake Haiti: How International Aid Organizations and Beneficiaries Value Competencies. *PA Times.* Retrieved from http://patimes.org/skills-mismatch-post-earthquake-haiti-international-aid-organizations-beneficiaries-competencies/

Rencoret, N., Stoddard, A., Haver, K., Taylor, G., & Harvey, P. (2010). *Haiti earthquake response: Context analysis*. Retrieved from https://www.alnap.org/system/files/content/resource/files/main/haiti-context-analysis-final.pdf

Ruhe, N. (2017). A Comparative Study of Culture and Cultural Heritage in Humanitarian Aid Efforts: Post-Earthquake Haiti and Post-Tsunami Aceh (Master's Thesis).

Sadiq, A. A. (2012). A Look at Nigeria's Bourgeoning Emergency Management System: Challenges, Opportunities, and Recommendations for Improvement. FEMA, US Department of Homeland Security. 2012. https://training.fema.gov/hiedu/downloads/compemmgmtbookproject/comparative%20em%20book%20-%20chapter%20-%20a%20look%20at%20nigeria's%20burgeoning%20em%20system.doc

Sadiq, A. A. (2014). The impact of the 2010 Haiti earthquake on disaster policies and development. In N. Kapucu & K. T. Liou (Eds.), *Disaster and development* (pp. 411–425). Switzerland: Springer International Publishing.

Sadiq, A. A., & Tyler, J. (2017). Agency coordination and cross-sector collaboration in fragile states. *Oxford Research Encyclopedia of Natural Hazard Science.* Retrieved from http://naturalhazardscience.oxfordre.com/view/10.1093/acrefore/9780199389407.001.0001/acrefore-9780199389407-e-177

Schulz, S. F., & Heigh, I. (2009), "Logistics performance management in action within a humanitarian organization", *Management Research News*, *32*(11), 1038-1049.

Tierney, K., & Oliver-Smith, A. (2012). Social Dimensions of Disaster Recovery. *International Journal of Mass Emergencies & Disasters*, *30*(2).

United States Department of State. (2012). *Background Note: Haiti*. Retrieved from http://www.state.gov/r/pa/ei/bgn/2836.htm

World Health Organization. (2010). Culture and mental health in Haiti: A literature review. Retrieve from http://www.who.int/mental_health/emergencies/culture_mental_health_haiti_eng.pdf

Influence Inoculation: Why Some Target Audiences Are Immune to Our Efforts to Sway Them

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During World War Two, American Psychological Warfare (PSYWAR) specialists disseminated a leaflet to Japanese soldiers, emblazoned with the words, "I Surrender." Such a product is common in psychological warfare, intended to provide safe capture to any enemy soldier possessing it. The message to the Japanese soldiers, however, was largely ignored. Many continued to fight, often to a needless death.

After some investigation, American researchers discovered the word "surrender" was specifically verboten in Japanese culture and warfare. To the Japanese soldiers, surrendering to the enemy had dire physical and metaphysical consequences not only in life, but also in death. With this new understanding, the PSYWAR specialists changed the wording to "I Cease Resistance" and the products were disseminated once again. This time, they were met with favorable results (Friedman, 2004).

Unknown to the American PSYWAR specialists at the time, the Japanese soldiers were culturally indoctrinated against that specific message. While "I Surrender" and "I Cease Resistance" have identical outcomes, the Japanese Soldiers were specifically conditioned to strongly reject the act or even the idea of *surrendering* to the enemy. Despite the threat of death, the Japanese soldiers still rejected the message. This fact would never change, no matter what other modifications were made to the product itself.

In effect, the Japanese soldiers were inoculated[6] against the American message of surrender. They were subjected to continuous, overt conditioning and indoctrination via cultural influences and stimuli, which led to an automatic response: The rejection of the message. This inoculation against outside influence is a type of cultural cognitive diversity that the Psychological Operations (PSYOP) practitioner must be prepared to counter.

Two Types of Influence Inoculation

The cognitive process demonstrated by the Japanese soldiers has roots in Inoculation Theory, a phenomenon that has been studied for several decades. In cases where individuals or target populations have been inoculated, two elements abide: Conditioned recognition of the message, and preemptive arguments that are automatically used to refute the arguments made upon that recognition (Compton, Jackson, & Dimmock, 2016). This is not uncommon throughout the world, with recognizable examples existing in American politics in which staunch members of different political factions completely ignore or refuse to consider even commonsensical messages from groups with whom they think they have enmity.

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[6] Psychological inoculation, as a metaphor, borrows an idea from the process of biological immunity. The individual was previously prepared, or primed, to fight an ''infection'' of propaganda or influence attempts, rendering the message inert. Just as a vaccination is a shortcut to disease immunity, influence inoculation is also a shortcut, or a heuristic, to immunity against influence.

One type of inoculation we might see occurs in highly propagandized cultures, such as in North Korea. The PSYOP practitioner would likely be unable to influence attitudes or values in a target audience (TA) that has received consistent, long-term exposure to indoctrinating propaganda and powerful cultural influences. The practitioner might find more success in short-term behavior change without the attitudinal component.

The other type, which is likely much more difficult to detect, might come from the continued peripheral influence of modern media, which is "ever-present, filling every technology-connected individual's whole day, every day" (Ellul, 1973). Peripheral influence is achieved when an influencing agent elicits an affective state (emotion or mood) in an individual or group which then becomes associated with the target attitude or argument (Petty, Heesack, & Hughes, 1997). Instead of a target audience accepting or rejecting an argument or influence through cognitive means, i.e., evaluating the message on its merits and deciding to act based on rationality, a ubiquitous media helps creates a heuristic, or shortcut in the thinking process of the target audience (Kahneman, 2011), to negate future influence attempts. The target audience is conditioned to *feel* a certain way about a message or messenger, rather than think about it logically (Green, 2012). This process does not significantly differ from direct indoctrination in its effects, but is merely different in its visibility to the casual observer.

This inoculation against influence can develop when the individual is exposed to lesser, or "weakened," arguments that are similar to what the individual might experience in future influence events (Banas & Rains, 2010). Essentially, the individual has been intentionally inoculated without being aware of the stimulus for doing so (Ajzen, 2001). Instead, outside agents, and even the media environment itself (Bargh & Chartrand, 1999) have preconditioned a target audience against the receipt, understanding, or acceptance of a future message. This creates an instant, unconscious mental reaction-- rejecting the message without actively considering it.

Recommendations for Recognizing and Combating Influence Inoculation

Automatic attitudes are at their strongest when cognitive processes are at their lowest (Macrae & Bodenhausen, 2000). Meaning, preconditioned heuristic shortcuts within the thinking process go unnoticed by the inoculated. Consequently, unchallenged attitudes and behaviors carry a sort of cognitive inertia and can only change when acted upon by another outside force. Countering this automaticity would greatly depend on the PSYOP practitioner's ability to understand its origins and develop an educational messaging plan to overcome it.

Understanding whether a target audience has been preconditioned to reject a particular message, phrase, or word within the product starts with the Target Audience Analysis (TAA) phase of the PSYOP Process. The TAA must account for media usage and narratives, cognitive differences between cultures, and the correct use of verbiage for that culture. Within the TAA, the PSYOP practitioner should bolster the synergy between the following steps to make this determination: Identify Conditions, Identify Vulnerabilities, Determine Susceptibility, and Determine Accessibility.

We too often view the steps of the TAA as a linear method, in which each step is completed before moving on to the next, sometimes not returning to previous steps. However, the practitioner must view the TAA as an interdependent framework, touching all steps simultaneously as they are prepared. The keys to understanding how to change behavior is determining why current behavior exists. The following four steps, completed in concert, can assist the practitioner in revealing those factors: Identify Conditions, Identify Vulnerabilities, Determine Susceptibility, and Determine Accessibility.

Within Step Three, Identify Conditions, PSYOP Doctrine does briefly mentions that the practitioner should attempt to understand internal attitudes, e.g., the TA's "learned predispositions to respond"

(US Army JFK Special Wafare Center and School, 2014). But how could a PSYOP practitioner possibly know what those predispositions are without first understanding the TA's psychological environment or cognitive diversity? Only by also understanding the TA's vulnerabilities, its susceptibility to influence, and the routes by which it is influenced (accessibility) can a practitioner understand the conditions for the TA's current behavior.

PSYOP Doctrine states that a TA's behavior can be changed if its conditions are changed. However, its conditions can often exist because of its vulnerabilities. One type of vulnerability is known as psychographics, is the internal motivations of the individual, such as fears, loves, values, or cultural norms (US Army JFK Special Wafare Center and School, 2014). Using these internal motivations creates a psychographic pathway through which a heuristic can be formed in the minds of the TA. If a cultural norm has caused the TA to shortcut his/her thinking about a behavior, this should be recorded as part of the TA's psychographics and can be viewed as a type of influence inoculation. The practitioner should then make an attempt to prompt the TA to evaluate that behavior in light of factors that may help the TA understand their motivations to perform that behavior. As previously mentioned, automaticity is at its strongest when thinking about such behavior and attitudes is at its weakest (Macrae & Bodenhausen, 2000).

Susceptibility to influence, according to PSYOP Doctrine, is the likelihood the TA will be open to persuasion. PSYOP Doctrine uses a risk-reward basis for understanding this susceptibility. Meaning, what will the TA risk by changing their behavior and what would be the rewards for doing so? But looking back at the *I Surrender* leaflet using only this paradigm, a present-day PSYOP practitioner would achieve a similar result as the PSYWAR specialists did. The practitioner cannot view susceptibility as merely a risk-reward reaction to stimulus; he or she must attempt to understand the target audience's daily psychological environment, particularly the target audience's heuristic reaction to the phrasing the practitioner intends to use. From an outside perspective, i.e., not understanding the cognitive diversity of the TA, it would be easy for a practitioner to make the mistake of being convinced by their own arguments.

Finally, understanding the TA's Accessibility to media means more than surveying them to learn what time of day they watch television most often. PSYOP Doctrine says Accessibility is the *availability* of a TA for targeting by the practitioner (US Army JFK Special Wafare Center and School, 2014). *Availability* means more than whether or not they happen to view the newspaper as a credible source; it could also mean they view other media sources as having less credibility, which would present significant problems for the practitioner should his/her series be disseminated through that "non-credible" source. This, again, would be the result of a heuristic created in the mind of the TA: They would be more likely to commit to behavior requested by a source they view as credible and would be less likely, or unlikely, to commit to a behavior coming from a source whose credibility has been diminished through inoculation from other outlets. The details of the TA's daily media intake should be viewed as contributing factors to their behavioral conditions.

Conclusion

Influence and attitude inoculation is likely to occur without the TA's knowledge. This inoculation would be a piece of the psychological environment inhabited by the TA, and could contribute to their current behavior or their rejection of the behavior prompted by the PSYOP practitioner's disseminated series. Without understanding the cognitive diversity within the culture of the TA, the practitioner will unlikely be able to exert any level of influence over the TA's behavior.

The heuristics of a TA's thought process when encountering influence opportunities can only be known by a PSYOP practitioner who looks for them. Understanding the psychological environment is more than an "on the surface" glance into a TA's daily thought life. The practitioner must provide valid input to the TAA, through a knowledge of media consumption, psychographic pathways, and

current behavior conditions. Without sound input and objective analysis, the practitioner will obtain faulty results, leading to a rejection of the message, as experienced by the PSYWAR specialists in World War Two.

References

Ajzen, I. (2001). Nature and Operation of Attitudes. *Annual Review of Psychology*, 27-58.

Banas, J., & Rains, S. (2010). A Meta-Analysis of Research on Inoculation Theory. *Communication Monographs*, 281-311.

Bargh, J., & Chartrand, T. (1999). The Unbearable Automaticity of Being. *American Psychologist*, 462-479.

Compton, J., Jackson, B., & Dimmock, J. (2016). Persuading Others to Avoid Persuasion: Inoculation Theory and Resistant Health Attitudes. *Frontiers in Psychology*, Published Online.

Ellul, J. (1973). *Propaganda: The Formation of Men's Attitudes.* New York: Vintage Books.

Friedman, H. (2004, January 20). *PSYOP Mistakes*. Retrieved from www.psywarrior.com: http://www.psywarrior.com/PSYOPMistakes.html

Green, L. (2012, April 07). *Think Tank: Its' the subconscious that makes ads work*. Retrieved from www.telegraph.co.uk: http://www.telegraph.co.uk/finance/newsbysector/mediatechnologyandtelecoms/9191107/Think-Tank-Its-the-subconscious-that-makes-ads-work.html

Kahneman, D. (2011). *Thinking, Fast and Slow.* New York: Farrar, Staus, and Giroux.

Macrae, C., & Bodenhausen, G. V. (2000). Social Cognition: Thinking Categorically about Others. *Annual Review of Psychology*, 93-120.

Petty, R., Heesack, M., & Hughes, J. (1997). The Elaboration Likelihood MOdel: Implications for the Practice of School Psychology. *Journal of School Psychology*, 107-136.

US Army JFK Special Wafare Center and School. (2014, December 31). *ST 33-01 Military Information Support Operations*. Fort Bragg, NC: Department of the Army.

A Checklist for Integrating Cultural Cognitive Diversity into Planning

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One of the most challenging activities to plan for, train around, and execute is to shift the beliefs of a group or population that hates another group, and to do it so effectively that their behavior changes from violence to more tolerant interactions with the other group. It is challenging because we rarely have the depth of knowledge in advance, or rather we have not routinely put the available knowledge into a planning framework for our advantage. Shifting behavior is an essential element of achieving any strategic goal. If the population that is receiving the crisis response from your team sees you as a trusted ally, you will be able to deliver that support more effectively. If the population where you are working is divided, and you unwittingly appear to take sides, you will make enemies where you do not need to. Throughout this SMA White paper, authors discuss examples where failure to utilize the expertise from social and cognitive scientists or adapt planning methods to easily integrate their research has led to unsuccessful operations. This paper recommends a step-by-step approach to combine cultural and cognitive diversity into planning—for multiple contexts.

In the field, I have used the approach outlined below to successfully influence attitudes and achieve behavioral change, often developing narratives for different types of media to affect a wider population or motivate leaders. The approach has been adapted to different contexts across varied cultural and linguistic environments including North Africa during the Arab Spring of 2011 in which the upheaval permitted an escalation of violence against minorities and migrants. Creating a successful engagement starts with assessing the environment, the populations of interest, and the key attributes that contribute to the conflict or potential risk. While each context and activity or operation will necessitate a flexible approach, there are some overarching guidelines that can facilitate the integration of the types of expertise and resources discussed throughout this SMA White Paper. Whether the planning will be for a humanitarian aid project to build a series of physical structures to provide services for a segment of a population outside the US, or to evaluate how the presence of an operation affects a community of interest both materially and emotionally, the following steps leverage the knowledge, expertise, and resources in this paper to present a checklist for integrating cultural cognitive diversity into planning.

The format of the checklist builds on the Work Domain Analysis (WDA) approach which uses mixed methods to create a conceptual workflow about both how experts perform their work and how technical systems function (Naikar, Hopcroft, & Moylan, 2005). WDA has been in use to examine military processes such as strategic planning for over 25 years. Early on Cohen, et al. (1992) used this approach to describe how to control physical (only) movement in a domain. The outline below combines planning for physical and informational domains within an operational environment. Today, WDA is a method used to instruct machine learning that translates and codes interviews about the purpose and processes involved in a workflow (i.e., how to fly a plane) into executable functions for a computer. Some of the elements that may be translated in this manner are the perceptions, values, or influence that interviewed participants describe such as their perception of their own expertise, their ranking of priorities among tasks in a process, or their assessment of risk

factors which may be biased by previously formed beliefs. In this way, the method illustrates the potential of scoping around discrete aspects of human behavior and cognitive variations that can be observed or tested through research, yet still translated into a discrete elements suitable for coding.

The method does not eliminate the necessary qualitative characteristics offered in social science content. It seamlessly combines them by keeping the human experts in the loop. Making elements discrete or aligned within a structured framework does not turn qualitative elements into quantitative ones. There will still be subjective, uncertain, and unassailably qualitative aspects to a combined planning approach. This represents the state of science for social and cognitive research in which we still have many things to learn about cultural and cognitive diversity.

The chart below illustrates how the purpose is achieved by functional components in the workflow. The combined approach focuses on these (3) functional components below the Domain Purpose which describe methods and materials.

Functional Purpose: evaluate potential effects of activities on population(s)
Domain Purpose: leverage rigorous social and cognitive science in structured manner as the assessment and evaluation criteria for planning how activities will potentially affect population(s) in a given location(s) over time.
Generalized Functions: Sub-Tasks
Technical Functions: Following the Sub-Tasks, by breaking down the Abstract Purpose into a series of questions that can be answered by existing research, data sources, or methods.
Physical Resources: Data sources, existing research, and methods
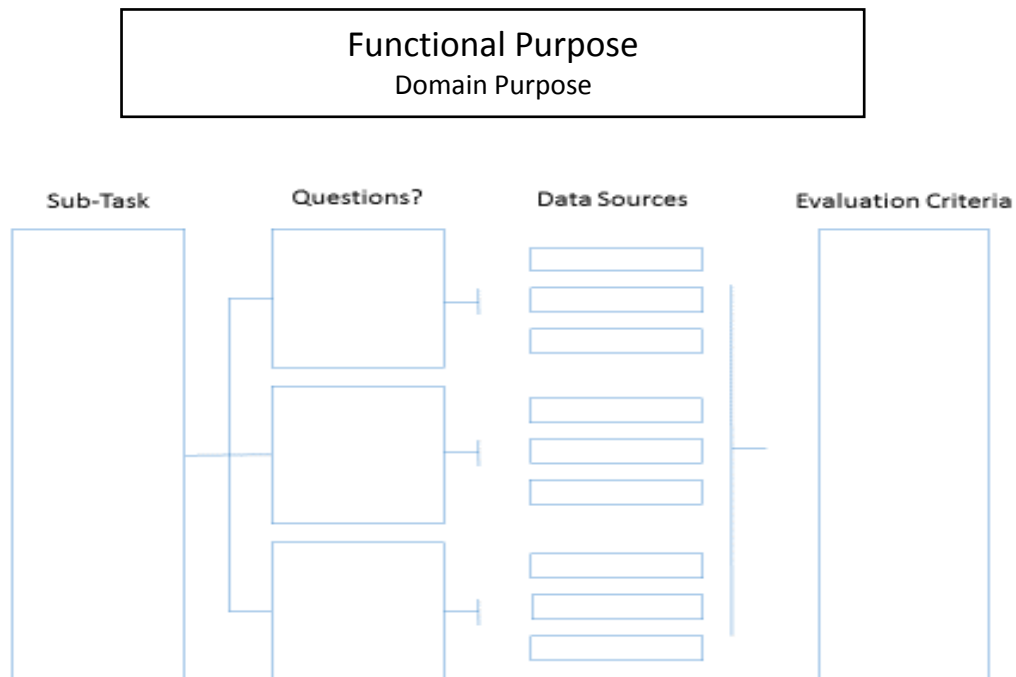
The output of this checklist is evaluation criteria. These are the metrics, scales or means by which a key component of the overall goal can be measured, tracked, or assessed. These become different types of Measures of Effectiveness depending on the type of activity. Planners will make this determination. By going down the list of sub-tasks and using the questions that lead to the data for decision-making sources, a planner or operator will build up a summary of assessment and evaluation criteria that will increase fidelity, value, and confidence for their planning by routinizing the inclusion of cultural and cognitive diversity. The data for decision-making included below are examples only and not exhaustive or specific to a context or activity.

Sub-Task	Data for decision-making	Evaluation Criteria
Location of Interest	Data Sources: Map, Imagery	+/-
Audience	Data Sources: Demographics, Maps	Count or %
Target Audience	Question: What makes a 'group', 'audience', or 'community of interest'? What are the factors of group's identity that define it in contrast to another? In order to target, must determine the cohesion factors, aversions, fears, collective (mis)trusts, heroes, etc., at group level.	Risk/vulnerability factors Cohesion factors from emic perspective with assigned scale with strength/direction
	Data Sources: Emic relational or multi-variate schema (Human Geography) In "Community-Based Armed Groups: towards a conceptualization of militias, gangs, and vigilantes," M. Schuberth develops culturally-localized group concept describing cohesion/aversion factors. In "Predictive Risk Modeling: A Tool for Child Protection?" Emily Putnam-Hornstein identified 136 risk factors creating multivariate, linked data for decision-making.	
Leadership	Question: Who does Target Population(s) look to for knowledge, who is their source of internal narrative? Leadership?	Count, influence scale, influence relative to locations and constituent populations
	Data Sources: Part of Emic relational schema (Human Geography) lists of key figures linked to constituent groups. A. Sadiq's recommendations and references on building trust with local stakeholders in this paper. In Tropical Cowboys: westerns violence and masculinity in Kinshasa, D. Gondola identifies local leaders, leadership qualities, values, and beliefs	

Media ecology	Question: What types of media do the population use, for what purpose, and at what times?	Time, type, location, density of media indicating best of purpose/audience/ time
	ABI+SOM, Social media, Maps and Statistics of phone and internet access/usage, maps and statistics of radio and tv consumption habits which are available from commercial providers and the International Telecommunications Union.	
Narrative norms	Question: What are the culturally specific narrative patterns, concepts, and tropes?	Patterns of frames that encode culturally specific concepts; key phrases, concepts, patterns
	Data Sources: Pavlenko (2003) says, "Research on cross-linguistic differences in narrative construction shows that speakers of different languages may exhibit systematic differences in what they see as tellable events and in ways they reconstruct these events in stories (Berman & Slobin, 1994; Chafe, 1980; Holmes, 1997; Liebes & Katz, 1990; McCabe & Bliss, 2003; Mistry, 1993; Sherzer, 1987; Slobin, 2000)." Pavlenko (2003, pp. 260-1) noted, "An intrinsic component of storytelling in many cultures are speaker's inferences, attitudes, and judgments about the events in question."	
Time	Questions: How far back do events affect perception, how far forward/back is focus of audience? (planning horizon of behavior) Do past, present, or potential future event hold the most potency? Is time linear or circular? Are the events of 80 or 200 years ago as present and relevant as they were at the time? Or is the focus on tomorrow or today? Sense of time may indicate how long trust-building investment takes, grudges last, grievances can be tolerated.	Temporal horizons, temporal focus (past/present/future) can adjust by location and population to Emic perception of role of time.
	Data Sources: R. Hendricks, and G. Sutherlin both examine culturally variable concepts of time. Authors from community or location of interest are valuable.	
Agency	Question: What is the level of responsibility an actor has for his/her actions? What is the perception of cause-effect, notion of responsibility (individual or collective, past, present or future)? Example: Americans have 'heroes' as common narrative trope. Individual responsible for major action. Is this convincing based on Emic concept of agency?	Weight given to leaders, individuals to affect change/influence
	Data Sources: In "Metaphors We Think With: The Role of Metaphor in Reasoning," Thibodeau and Boroditsky (2011) find that even the subtlest instantiation of a metaphor (via a single word) can have a powerful influence over how people attempt to solve social problems like crime and how they gather information to make ''well-informed'' decisions. G. Sutherlin 2014, pp.203-11 discusses cultural concepts of agency conveyed via Computer or Phone.	

Level of Investment	What level of investment will activities in this location and with this Target Audience take?	Resources over time to implement or maintain activity
	Data Sources: Combine location (count); Target Audience (count); Leadership and Agency; media density; time horizons (planning forward) to determine resources over time to implement or maintain activity. For advanced planning, this can be combined with or in contrast to other plans to demonstrate the relative efficacy of a certain course of action.	

References:

Cohen, S.G., Stanley, Jr. J.L., Peterson, A.S., and Krut, Jr. R.W. (1992). Application of Feature-Oriented Domain Analysis to the Army Movement Control Domain. Technical Report CMU/SEI-91-TR-028 ESD-91-TR-028. SEI Joint Program Office, Carnegie Mellon University; US Department of Defense. Online: https://www.sei.cmu.edu/reports/91tr028.pdf

Gondola, Ch. D. (2016). *Tropical Cowboys: Westerns, Violence, and Masculinity in Kinshasa*. Bloomington: Indiana University Press.

Naikar, N., Hopcroft, R., and Moylan, A. (2005). Work Domain Analysis: Theoretical Concepts and Methodology. Air Operations Division Defence Science and Technology Organisation. DSTO-TR-1665. Australian Government Department of Defence. Online: http://www.dtic.mil/dtic/tr/fulltext/u2/a449707.pdf

Pavlenko, A. (2003). Eyewitness Memory in Late Bilinguals: Evidence for Discursive Relativity. *International Journal of Bilingualism*, 7 (3): 257– 281. Online: http://journals.sagepub.com/doi/abs/10.1177/13670069030070030301

Putnam-Hornstein, E. (2011). Predictive Risk Modeling: A Tool for Child Protection? Online PowerPoint: http://www.chhs.ca.gov/Child%20Welfare/Predictive%20Risk%20Modeling.pdf

Sutherlin, G. (2014). The Myth of the Universal User: Pursuing a Cultural Variable in ICT Design for Conflict Management. PhD Thesis. University of Bradford, UK. Online: http://www.ethnosproject.org/the-myth-of-the-universal-user-pursuing-a-cultural-variable-in-ict-design-for-conflict-management/

Thibodeau, P.H., and Boroditsky, L. (2011). Metaphors We Think With: The Role of Metaphor in Reasoning. *PlosOne*. Online: http://lera.ucsd.edu/papers/crime-metaphors.pdf

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