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Learning through Dialogue during Intelligence Assessments: A Translation of Theory into Practice

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EDITORIAL NOTE

As a unique publication genre in *EMR*, translation articles communicate the experiences and outcomes that engaged management scholars have while translating their scholarship into practice. Adrian Wolfberg and Nancy M. Dixon's article "Learning through Dialogue During Intelligence Assessments: A Translation of Theory into Practice" adopts a novel retrospective approach to the translation genre. They translate a theory about learning types in intelligence assessments published by the first author (2014-2017) to empirical evaluations of intelligence assessment practices that the authors developed *prior* (2010-2013) to publication of the theory. The purpose of intelligence assessments is to make a judgement about a threat or opportunity that an organization faces and to communicate the judgment in oral or written form with supplemental material to decision makers. In these practices, intelligence analysts interact not only with the target decision makers, but importantly with peer analysts and intelligence managers across the organizational hierarchy. As such, intelligence assessments are complex practices with high standards for producing accurate and reliable information and with several opportunities to interact and learn from others. Against that backdrop, the considered theory suggests four types of learning involved in intelligence assessments. The paper zooms in on the role of dialogue within each of these types of learning and applies it to the historical, empirical evaluations of intelligence assessment practices. This translation advances the theory and provides practical insights into how dialogue with peers and managers can help intelligence analysts produce and deliver accurate and reliable information to decision makers. In addition, the authors reflect on their retrospective translation experience with recommendations for other engaged management scholars. As such, I highly recommend reading Wolfberg and Dixon's article to learn about the fascinating practice of intelligence assessment and as inspiration for advancing the translation paper genre in *EMR*.

Lars Mathiassen

Learning Through Dialogue During Intelligence Assessments: A Translation of Theory Into Practice

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ABSTRACT

We translate a theory into the practice of intelligence assessments. Following Karl Weick's (1993) retrospective approach, the translation relies on previously published evaluations of intelligence assessment practices. Intelligence assessments are used in organizations to inform leaders of threats and opportunities. The theory we apply describes how an intelligence analyst learns through dialogue during the practice of conducting an intelligence assessment, and it consists of four learning archetypes: cooperative, focused, survival, and reflective. The theory is based on the differential effects on learning caused by the interaction between information overload and equivocality. We use the role of dialogue in the theory as a way to compare two different practice contexts: national security and law enforcement. We offer three contributions: First, we find that the final stage of the practice—the review process—should occur organizationally where authoring analysts and their senior analyst reviewers reside. Second, we find that equivocality has differential effects on dialogue: In low equivocality conditions (cooperative and focused learning), hierarchical *structures* affect dialogue; and in high equivocality conditions (survival and reflective learning), organizational *politics* affect dialogue. Third, we identify a benefit of and a challenge in retrospective translation studies.

INTRODUCTION

Organizations use knowledge-based intelligence assessments to protect themselves from surprises and to take advantage of opportunities in an uncertain environment. In national security, law enforcement, and public safety organizations, decision-makers depend on analysts to produce intelligence assessments. In the for-profit sector, analysts produce intelligence assessments to alert decision-makers about technological developments in, for example, the pharmaceutical, chemical, biotechnology, nanotechnology, aerospace, materials, and electronic industries. In the non-profit sector, intelligence assessments are produced in higher education, public governance, museums, foundations, and public research centers. Organizations often fail to protect themselves or to leverage opportunities because decision-makers do not integrate the knowledge they receive in such assessments.

Decisions based on these assessments set precedents and affect an organization's success or failure (Eisenhardt & Zbaracki, 1992). However, learning from those who provide knowledge that can protect organizations from threats and alert them to opportunities is not solely the responsibility of the decision-maker. We assert that those who provide knowledge to be learned during their interaction with a decision-maker also bear responsibility. Dialogue is an important way in which this learning can occur. Dialogue is an effort to build a common ground by asking what we really mean or what the other individual really means to elicit our own and the other's assumptions (Schein, 1993). Dialogue is a way of determining whether perceptions and interpretations are correct in an effort to uncover hidden premises (Argyris, 1990). Therefore, we suggest that understanding how an intelligence analyst learns through dialogue

during an intelligence assessment process is a worthwhile pursuit that can benefit scholars and practitioners alike.

We proceed in the following manner. First, we introduce the translation approach and its components. Second, we describe each of the components in detail: the theory of learning and the role of dialogue; the practice of intelligence assessments; and the historical documentation of practice. Third, we conduct the translation analysis and discuss what we learned from the translation of theory, including reflections on the translation approach we used.

Translation Approach

This translation consists of three elements: a theory, a practice, and historical documentation. We adapt John R. Austin's (2013) translation approach, inspired by Karl Weick (1993), by reversing the order of translation. Instead of creating a theory and then applying it to practice, we examine historical documentation of a practice and then apply a particular theory to analyze it.

We have relevant experience in all three elements of the translation. The practice of the intelligence assessment is a multi-step process. The notional steps for intelligence analysts include clarifying the task, searching for and collecting information relevant to the task, thinking about the information collected, preparing a draft narrative, and undertaking a series of interactions using oral and written dialogue between peer analysts, as well as with individuals who review and edit the draft assessment. For the practice element, the first author spent more than fifteen years writing intelligence assessments for both national security and law enforcement agencies and another five years reviewing and editing other intelligence analysts' assessments in the same contexts. In a

subsequent five-year period, both authors collaborated on evaluating the practice.

The first author also developed the theory used in this paper, including the role of dialogue. The theory focuses on how an intelligence analyst learns during knowledge transfer with a decision maker. It was developed from a practice within a law enforcement intelligence context. The second author, a former university professor, has written about organizational learning and dialogue.

For the historical documentation used in the study, we turned to evaluations of the practice (Dixon & Wolfberg, 2010; Nolan, 2013; Wolfberg & Dixon, 2011). These historical evaluations primarily focused on the final step of the practice—the “review process,” as the step is called—in a national security intelligence context. The national security and law enforcement intelligence contexts are very different, but the practice of intelligence assessments is the same for both (Carter, 2012).¹

¹ National security intelligence seeks to protect U.S. territory and its people from threats that originate from foreign countries, while law enforcement intelligence seeks to stop criminal behavior within the United States (Carter, 2012). For law enforcement, the constitutional protections of privacy, civil liberties, and civil rights dominate the very fabric of its support to criminal procedures, while these constitutional protections are an infrequent constraint to national security intelligence (Carter, 2012).

TRANSLATION ELEMENTS

Theory

National security scholars point to information overload and equivocality as detrimental to the practice of producing intelligence assessments and to analysts' ability to learn (Fingar, 2011). Consequently, the first author's research considered the influences that information overload and equivocality had on intelligence analysts as they produce an intelligence assessment. The research culminated in a theory suggesting that intelligence analysts' learning occurs in one of four broad archetypes: cooperative learning, focused learning, survival learning, and reflective learning. Each archetype, described below, is influenced by varying degrees of low or high overload and equivocality (see Figure 1, cells 1, 2, 3, and 4).

The theory considers the use of various interaction mechanisms by intelligence analysts during the practice, highlighting how their use or absence can either improve or thwart learning. One common interaction mechanism is dialogue, which has a role that is then different for each learning archetype (Wolfberg 2014, 2015, 2017). Although dialogue is used in each archetype, it does not produce equally effective results for intelligence analysts across the

different archetypes. Intelligence analysts can effectively use dialogue in low equivocality conditions (i.e., cooperative and focused learning), whereas they cannot use it effectively in high equivocality conditions (i.e., survival and reflective learning) (Wolfberg, 2014, 2015). The differences are discussed below in more detail and summarized in Table 1.

In cooperative learning (Figure 1, cell 1), continuous dialogue is the primary mechanism used by intelligence analysts to increase their understanding of the decision maker's perspective. This understanding increases learning by providing analysts with a big picture of the decision maker's worldview. Dialogue is also used to create an emotional bond with the decision maker, thus generating a feeling of joint ownership and trust in the pursuit of mission success. As a result of the dialogue, an analyst and a decision maker jointly interpret and co-discover knowledge by allowing the decision maker to act as mentor for the analyst (Lankau & Scandura, 2002).

In focused learning (Figure 1, cell 2), as-needed dialogue is used successfully with analyst peers. Intelligence analysts engage in dialogue with peers who pro-

vide knowledge and perspective outside of their own expertise. Peer dialogue is used to increase an intelligence analyst's store of knowledge, and it has an indirect and positive feedback effect of increasing the decision maker's trust in, demand for, and appreciation of the analyst. As a result, analysts achieve a greater and more in-depth cognitive focus through successful control of their informational environment.

In survival learning (Figure 1, cell 3), analysts might try as-needed dialogue, but even if they do so, it often is not successful. Even when overload is somewhat successfully reduced, the confusion inherent in crises persists or may even increase further because the emphasis on controlling overload fails to reduce the high level of equivocality. When analysts are overcome by the number of tasks or by approaching deadlines, and also are confused because of the nature of a crisis, engaging in dialogue with a decision maker makes it hard for both the analyst and the decision maker to understand one another (Wolfberg, 2015).

In reflective learning (Figure 1, cell 4), analysts sometimes try as-needed dialogue as a mechanism to access a decision maker's needs at the time of their assessment task, but they often are unsuccessful. The reason is that analysts at this point are absorbed in intense, self-reflective activities, such as reframing, imagination, and deliberate thinking, and this reflexivity makes it difficult to establish common ground through dialogue (Wolfberg, 2014, 2015, 2017). If dialogue with a decision maker is successful at this point, an intelligence analyst might be more open to consider alternative, yet realistic, interpretations of the data and conclusions and to make the intelligence assessment more useful to the decision maker.

Figure 1: Learning Archetypes

High Overload	Focused Learning	Survival Learning
Low Overload	Cooperative Learning	Reflective Learning
	Low Equivocality	High Equivocality

Note: Figure 1 is derived from Wolfberg (2014, 2017).

Table 1: Role of Dialogue Across Learning Archetypes

Learning Archetype	Description	Role of Dialogue
Cooperative	Mutually beneficial relationship between intelligence analysts and decision makers affords co-discovery of knowledge.	Continuous dialogue with decision makers increases intelligence analysts' understanding of a decision maker's perspective of a joint effort.
Focused	Control of the environment allows intelligence analysts to achieve in-depth cognitive focus.	As-needed dialogue with peers increases intelligence analysts' knowledge, and decision makers' trust in, demand for, and appreciation of the intelligence analyst.
Survival	Methods to reduce disorder allow intelligence analysts to apply existing knowledge quickly.	As-needed dialogue with decision makers attempts to focus decision makers' attention and to improve their understanding of a chaotic environment.
Reflective	Introspective thinking allows intelligence analysts to create new meaning amidst ambiguity.	As-needed dialogue with decision makers about relevant operational knowledge and decision considerations can help intelligence analysts to interpret data.

Note: Table 1 is derived from Wolfberg (2014, 2017).

Practice

An intelligence assessment is an oral or written narrative often supplemented with visual information authored by one or more intelligence analysts. The purpose of an assessment is to make a judgment about a threat or opportunity, to provide interpretations of its effect on an organization's interests, and to provide considerations on whether and how decision makers should act. The final sequential step of the practice—the review process—is the interaction between the author and the peers and superiors to finalize the assessment before delivering it to a decision maker. Depending on the situation and the organizational context, this last part of the practice, at its slowest pace, can take months to complete or, at its fastest pace, can take a day or less to complete.

A notional characterization of these practice-based interactions in a hierarchical organization has vertical and horizontal components (see Figure 2). The vertical component always begins with one or more intelligence analysts who are the authors of an intelligence assessment. Authoring analysts typically are located at the lowest level of the hierarchical organization: the branch.² Analysts submit their assessment through a series of transfers with more senior intelligence analysts, who make decisions about the assessment and the next step in the review process. In this notional example, we use a national security context.

The first step in the vertical component is the delivery of an assessment to a senior intelligence analyst (SIA), who does not have supervisory responsibilities but holds informal authority as a decision maker over the intelligence analyst's as-

essment. In the second step, the SIA submits the assessment to a senior intelligence officer (SIO), located hierarchically at a more senior level at either the division or office level. Like the SIA, the SIO also has no supervisory responsibilities but does hold informal authority as a decision maker over the reviews made by SIAs. In the third step, the SIO submits the assessment to one or more senior defense intelligence analysts (SDIAs). SDIAs are the most senior analysts in the office; they have no supervisory responsibility but do have informal authority as a decision maker over the reviews made by SIOs. In addition, managers at each level—branch, division, and office—typically are analysts who have been promoted or hired into the management track; they have supervisory responsibilities and formal authority, and they review but do not write assessments.

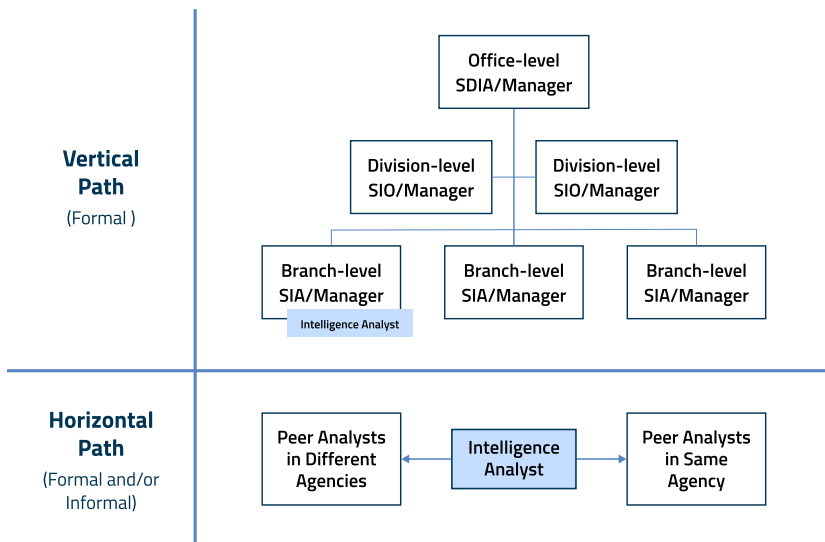
The horizontal component includes other analysts who communicate with the authoring analyst. Sharing occurs among peer analysts who have knowledge and interest in the assessment topic, both within and outside the authoring analyst's organization. Peer analysts bring additional knowledge and perspectives relevant to the assessment that the authoring analysts might need.

Historical Evaluations

We focus our attention on ways of communicating because of the communication that occurs in the historical evaluations used in this paper (Dixon & Wolfberg, 2010; Nolan, 2013; Wolfberg & Dixon, 2011). The second author led a participatory research project—a study motivated and initiated by the needs of the analysts—to analyze the interactions involved in the intelligence assessment practice in a national security intelligence organization (Dixon & Wolfberg, 2010). One of their key findings involved ways of communicating (Schein, 1993) during the final interaction phase of

² The typical structure of the organization includes three levels: the lowest form, the "branch," which falls within a "division," which falls within an "office." Not all organizations have the same structure. The size of each level varies by organization. Sometimes a branch is further subdivided into one or more teams, although a branch typically is the lowest form of organization that has a formal management position. An office, at the highest level, could include more than 100 people. As a result of this variation in structure, the number of people who participate in a review process also varies.

Figure 2: Notional Practice-Based Interactions



Note: SIA—senior intelligence analyst; SIO—senior intelligence officer; SDIA—senior defense intelligence analyst.

the practice. These findings included the following:

- The exclusive use of the written word in almost all forms of exchanges was insufficient for conveying feedback on the robustness of analytic thinking and expression.
- Customer feedback lacked the insights to be informative and to help improve analysis.
- The customer feedback given was almost always positive and thus did not provide the authoring analyst with feedback leading to correction or improvement (Dixon & Wolfberg, 2010).

Nolan (2013) conducted research that analyzed interpersonal communications in a national security organization. In this dissertation, Nolan provides examples of how information is shared and communicated between intelligence analysts who work in crisis situations. Wolfberg and Dixon (2011) conducted a study of how intelligence analysts reflect on their communications with their managers.

THEORY TRANSLATION

Translation Analysis

In the following, we translate the theory of learning through dialogue into intelligence assessment practices, based primarily on the previously published report (Dixon & Wolfberg, 2010) and augmented with supplemental historical reports (Nolan, 2013; Wolfberg & Dixon, 2011). Table 2 summarizes the results of the translation analysis.

Cooperative Learning. Cooperative learning was evident, for the most part, in the practice through the dialogues between the intelligence analyst and the branch senior intelligence analyst. For example, an analyst stated:

If I have a question, we can talk about it. It is usually pretty straightforward. I wrote something. He said, “This part is really good,” and “Put this up front,” and “This should not be a repeat of the first paragraph.” I’ll say, “Is this what you’re looking for?” He sits just two desks away. I try to take anything as a lesson and not take it personally because I’m new to this and this is how I’ll learn to do it (Dixon & Wolfberg, 2010).

Analysts found that this dialogue created a team spirit and offered a bigger picture than what their experience had provided. One analyst remarked:

I really trust the senior intelligence analyst to guide me as he has worked this account for decades. If I’m a little off, I would rather be able to talk about it (Dixon & Wolfberg, 2010).

Another analyst said:

Face-to-face reviews are usually better. My branch senior intelligence analyst is phenomenal, the best-ever editor. She’s like a net because she catches everything. And she will sit down and talk with the analyst (Dixon & Wolfberg, 2010).

The importance of such dialogues is further evidenced by the fact that senior intelligence analysts are collaborative, like analysts, but have a deeper content knowledge than analysts and are more familiar with the analytic standards with which the analyst must comply. For example, a branch-level senior analyst said:

If I retire... as a senior intelligence analyst, I’ll feel I’ve been successful because I really like this job. Bringing new analysts onboard and getting them excited about their issues/countries makes me feel the best. If an analyst can prove me wrong, I really like it because it shows they’re interested (Dixon & Wolfberg, 2010).

Senior intelligence officers are task-oriented and assigned numerous additional responsibilities because of their higher level positions. One branch-level analyst compared the senior intelligence officer and senior intelligence analyst positions this way:

The senior intelligence analyst is the best job in the analytical sphere. You’re getting your hands dirty, reading traffic/papers, you can focus on the analysts themselves every day. Senior intelligence officers can’t do that – they’ve

Table 2: Translation Results

Learning Archetype	Evidence of Dialogue in Practice	Evidence of Dialogue in Theory	Historic Account
Cooperative	Analyst gains new perspectives and learns.	Authoring intelligence analysts are in dialogue with branch-level senior intelligence analyst and manager within the same agency.	Dixon & Wolfberg (2010)
Focused	Analyst's knowledge gaps are filled.	Authoring intelligence analysts are in dialogue with peer analysts within and outside the same agency.	Dixon & Wolfberg (2010)
Survival	Analyst likely does not learn.	Authoring intelligence analysts try to dialogue with decision makers, who are inundated with other demands in a fast-paced, chaotic situation.	Nolan (2013)
Reflective	Analyst tries to inform senior reviewers.	Authoring intelligence analysts try to dialogue with senior reviewers at higher levels of the agency in written or oral form in the later stages of the practice.	Dixon & Wolfberg (2010), Wolfberg & Dixon (2011)

got too much else going on (Dixon & Wolfberg, 2010).

Focused Learning. Focused learning through dialogue was evident in the practice in peer coordination activities. Analysts found that they gained new knowledge from peers within their branch, which allowed them to use their own expertise while also taking advantage of expertise outside of their domain to fill in knowledge gaps. An analyst mentioned:

He [the peer] said, "You mentioned this guy and then mentioned this guy and the last names are the same, so you might want to differentiate these two." It's good to have these guys see it; they are going to spot stuff that's not clear. I sit with these guys every day. It's not a matter of beating each other up (Dixon & Wolfberg, 2010).

This gap-filling knowledge helps analysts to deliver higher quality knowledge to senior reviewer decision makers, and to improve the decision maker's appreciation of

the analyst. However, sometimes the peer review benefit is missing. For example, one analyst explained that more peer review was desired:

We think the most rigorous review should be from our peers. We get through it rather quickly, but when you're looking at the review process of the evidence line and traffic, we've hacked out a lot of those issues before it goes up the chain of command. We should be doing more peer review – as least we think so in our division. We think we should have a longer suspense at the team level and a shorter one at the division level – and that is backwards now (Dixon & Wolfberg, 2010).

Survival Learning. Evidence of survival learning is found in the attempts at dialogue included in Nolan's (2013) description of assessments produced immediately after the terrorist attacks on U.S. soil on September 11, 2001. One analyst described the difficulty that analysts had engaging in dialogue with senior intelli-

gence officers in their chain-of-command during this time:

My branch chief has my back, but my deputy and group chief never have our backs, consistently throwing us under the bus. That sort of thing makes a difference when you have to defend your analytic line and you're challenged and have to argue with people much more senior (Nolan, 2013).

Another intelligence analyst described the detrimental effects of not knowing everything that is going on but also acknowledged that the possibility of blind spots increases because the amount of overload is so great:

The pace here can be excruciating. Especially since 9/11, I feel like people are just so worried about overlooking something or not catching onto a trend, which we should be. But it's like, how are you supposed to know in the moment what's a trend? So you're constantly trying to cover your bases, but you often don't know. And along with that, and the need to publish, is the sense [that] everything is needed now, now, now. Everything is urgent. I'm always tired because I never get enough sleep (Nolan, 2013).

Reflective Learning. Attempts at written dialogue in reflective learning conditions were apparent in the 2010 evaluation report (Dixon & Wolfberg, 2010). After the team or branch senior intelligence analyst saw the analyst's assessment, the form of knowledge exchange between analyst and senior intelligence officers primarily shifted. It went from oral dialogue to written dialogue through the "track changes" software feature of Microsoft Word, and this communication was conveyed by email.³ An analyst lamented about the lack of in-person, oral dialogue:

Seldom do I get called in to talk with them [the high-level reviewers] to dis-

³ "Track changes" is an editing feature, embedded in the software application, that shows deletions, changes, and additions to the text; subsequent readers of the text can then review and retain or reject these changes.

cuss changes they want to make. Most of the time, there is no discussion about changes, so you can't say you disagree. It comes down as, "you will make these changes." Who's the analyst: me or you? You may have general area knowledge, but I'm the one doing the specifics (Dixon & Wolfberg, 2010).

For senior intelligence officers, who edit more assessments than a team or branch senior intelligence analyst, oral dialogue with analysts would be time consuming—hence the rationale for written dialogue. However, without oral dialogue, the analyst was unable to understand the perspective of the particular reviewer to see why such a reinterpretation of the data was needed. An analyst commented:

The team lead review will be e-mailed, but we'll generally sit down and go over things. At the branch senior intelligence analyst level, we get a majority of the changes and comments via e-mail, with some personal interaction. At the division level it is primarily email, with infrequent interaction. Above the division senior intelligence analyst or officer level, all of the review comments are e-mailed (Dixon & Wolfberg, 2010).

In one example where an attempt at oral dialogue was made between the authoring analyst and senior intelligence officers, the attempt was not successful, as indicated in the following discourse (Wolfberg & Dixon, 2011).

The senior analyst began the dialogue:

I don't think you have enough evidence to go on to make bold statements in a product. There's not going to be a peace agreement tomorrow.

The analyst responded:

I know there won't be an agreement tomorrow. I'm just saying this is a unique situation given the leadership calculations on both sides, and if talks last long enough, the sides might be able to achieve peace through attrition.

In response, the senior intelligence officer said:

I've seen this before. We should put a time cap on how long we think these talks will last. Besides, the conflict usually heats up around this time of year anyway.

The analyst, defending himself, said:

All I'm saying is that I think the leadership calculations may have changed. Talks wouldn't have even lasted this long if their intentions weren't different now, but maybe I can try to soften the language in the product so it sounds less certain.

Although the exchange represents an attempt at oral dialogue, the dialogue was not successful because the participants did not share the reasoning behind their views.

DISCUSSION

We identify three contributions from this translation study: a practice lesson about intelligence assessments; an insight into the theory of learning through dialogue; and a lesson about the retrospective approach to translation.

Practice Lesson

The practice lesson we learned through the translation study is that the major emphasis of a review process used in intelligence assessments should occur at the lowest organizational level. At this level, dialogue is most effective (see Table 2, cooperative and focused learning) and can be leveraged between the authoring analyst and the analyst's immediate senior analyst or manager.

As mentioned, the typical model that intelligence and law enforcement agencies use to review intelligence assessments focuses the level of accountability and responsibility on the most senior individuals in the analytic organization (Figure 2). We

take for granted that review processes in these agencies remain in place, and that the need for experienced analysts to review the assessments of less experienced analysts is to be desired. What is needed is an organizational design that more equitably balances the level of effort from the top of the hierarchy, where changes and decisions are made, to the bottom of the hierarchy, where the authoring analysts and their branch- or team-level senior analysts can use dialogue to more fully engage in the review process. Such enhanced engagement can shift the use of dialogue from the mentoring-like role it plays within the branch- or team-levels to a more procedure-oriented role. For example, a procedure-oriented approach to dialogue might focus on evaluating in depth the specific standards of analytic quality—for example, standards related to explicit expression of underlying assumptions and inferences. The desired outcome is that cooperative, focused, and reflective learning improves.

Senior analysts at higher levels of the organization still have a role in providing an additional layer of quality control and advice. We recommend that the leadership in each analytic office create boundary spanner positions (Carlile, 2004). The boundary spanner would navigate the processes and results of the branch- and team-level reviews in their office and negotiate between these reviewers and the higher level reviewers in their office. The boundary spanner role might be filled for short periods by senior intelligence analysts, but in their spanner role, they would be assigned to a different organizational entity to engage in the review process between authoring analysts and senior reviewers. These boundary spanners should be selected for their emotional intelligence and maturity and should be able to appreciate and translate between the different worlds of authoring analysts and senior reviewers.

Theory Insight

The theory insight we gained through the translation study is that equivocality has differential effects on dialogue during

learning. Under low equivocality conditions (cooperative and focused learning), hierarchical structures appear to influence the effectiveness of dialogue, and under high equivocality conditions (survival and reflective learning), organizational politics predominantly influence the effectiveness of dialogue. These differences are summarized in Table 3 and discussed in the next section.

Low Equivocality Conditions. In cooperative learning, face-to-face dialogue between analysts and their branch- or team-level senior intelligence analyst helped analysts to learn. Individuals who belong to the same lower part of a hierarchical organization have much closer, more widespread and intense relationships than individuals who are positioned in higher parts of a hierarchal organization (Simon, 2002). Simon (2002) called this phenomenon near decomposability. The concept of near decomposability allows for the recognition that higher degrees of hierarchical separation can negatively affect communication between individuals (Carlile, 2004). When interaction occurs across a wide hierarchical separation, then dialogue is not as helpful because more senior intelligence analysts are busy with other tasks. Very senior analysts have a large number of analysts for whom they are responsible, which allows them only small increments of time to devote to any one assessment, and which also minimizes their opportunity to develop a relationship with the authoring analysts. Hierarchical boundaries are known to disrupt dialogue, and, without dialogue, people are less likely to know each other’s needs.

In focused learning, dialogue between authoring analysts and peer analysts is very helpful because it fills in the knowledge gaps of the authoring analyst. However, if the intelligence assessment practice de-emphasizes peer review and prioritizes review by higher levels of the organizational hierarchy, this shift is not viewed as helpful or desired by authoring analysts. The literature suggests that the more distant the reviewer is from the knowledge creation, i.e., from the writer and the writer’s analysis, which transfers data into knowledge, the more difficult it is for the reviewer to understand with certainty the data and inferences that underlie the knowledge. According to March and Simon (1958), this “uncertainty absorption” by the reviewer can thwart dialogue. The authoring intelligence analyst who transforms the data into knowledge can identify the evidence used and the inferences made during the transformation. However, senior reviewers, who are structurally removed from the cognitive transformation activity of the authoring analyst, are somewhat limited in their ability to easily and quickly inquire into the accuracy of these inferences due to uncertainty absorption.

High Equivocality Conditions. In survival learning, which occurs during a crisis, dialogue between lower and upper levels of the hierarchy may not even be attempted. Decision maker agendas and organizational politics at higher echelons of the hierarchy become problems instead of learning opportunities for lower echelon analysts (Wolfberg, 2014). We know from early experiments that if overload alone is present, filtering is an effective mecha-

nism to reduce it (Miller, 1960). However, when both overload and equivocality exist simultaneously, as they often do in crisis situations, efforts at clarification through dialogue largely disappear. This absence of dialogue can result in an organizational focus on addressing the symptoms of the problems, rather than on understanding their underlying cause. Argyris (1990) called this single-loop and double-loop learning, respectively. Addressing symptoms—single-loop learning—does not eliminate causes, but if causes are faced—double-loop learning—then problems are more likely to be solved.

In reflective learning, authoring analysts might attempt to engage in dialogue across hierarchical levels because the analyst is trying to educate higher level senior intelligence analysts. Analytic management tends to focus on data sources as a way to detect and reduce mistakes made by authoring analysts and may deemphasize the value of connections between and implications of non-obvious people, events, and relationships (Klein, 2011). This error-correction behavior is apparent in the dialogue provided previously in the translation section. An organizational behavioral routine focused on error-correction creates defensiveness and thwarts effective dialogue (Argyris, 1990). Defense mechanisms prevent learning because they protect the defensive party from exposure to other ideas (Argyris, 1990) that might suggest an error in his or her analysis.

Retrospective Translation Lesson

Our retrospective application of theory into historical documentation provides two lessons. First, this approach affords theory creators the opportunity to experiment with the translation of theory into different contexts through a simulation—that is, by examining the applicability of a theory to different contexts through a historical account, without the effort of an intervention. In applying our theory of learning through dialogue to historical documentation, the simulation allowed us to evaluate the documentation and

Table 3: Differential Effects on Dialogue

Learning Archetype	Level of Equivocality	Type of Feature	Effect on Dialogue
Cooperative	Low	Structural	Less hierarchical separation increases dialogue.
Focused			
Survival	High	Organizational	More politics and agendas decrease dialogue.
Reflective			

the theory without having to create new interventions that might have confounded the theory's implementation; it also allowed us to avoid common challenges in such interventions: expending political capital, overcoming organizational resistance, and fighting for time and resources to create prescriptions for organizational change. Second, the approach offers a way to address the challenge in retrospective translation that requires the researcher to find both a practice involving historical documentation that is common across different contexts, and a theory covering a common phenomenon by which to implement the translation simulation. In our case, the common practice is the intelligence assessment, and the common phenomenon is the role of dialogue during learning.

This retrospective translation of theory across contexts supports the generalizability of the theory of learning through dialogue in the production of intelligence assessments. As we reported in Table 2, the translation successfully used a theory about a practice in law enforcement and applied it to the same practice from a different context: that of national security.

Future research might consider another closely related yet more common management context. The theory of learning through dialogue also is likely to be generalizable to competitive business intelligence in the for-profit and non-profit sectors. Competitive intelligence shares common roots and practices with national security and law enforcement intelligence (Gainor & Bouthillier, 2014). For this reason, we see promise in the use of translation research to apply the theory of learning through dialogue into practice across a broad spectrum of assessment contexts.

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