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An Exploration of Interpreter Performance in Intelligence Gathering Interviews

J Drew A. Leins, Laura A. Zimmerman, & Jessica Marcon Zabecki

Abstract

This study explored the performance of interpreters in military intelligence-gathering interrogations. We coded transcripts of 10 interrogations of one detainee at an overseas U.S. military detention facility. The same interrogator conducted each session with the assistance of two interpreters who participated in one session together and worked alone in the remaining sessions. We coded interpretations as accurate (gist) or one of three errors: omission, substitution, or addition. We report accuracy and error rates across interpreters, as well as differences in interpretation accuracy as a function of the direction of interpretation (English-toArabic or vice versa). Interpreters were largely accurate, conveying the gist of information in at least 82% of interpretation attempts. However, they made a variety of errors which differed depending upon the direction of interpretation. Interpreters generally refrained from assuming the role of interrogator and using tactics or rapport building techniques. Implications and future directions are discussed.

Keywords: interrogation, interpreter, cross-cultural, intelligence gathering.

Introduction

The scope of investigative interview and interrogation research has recently expanded from focusing almost exclusively on law enforcement to include an exploration of human intelligence gathering in military contexts (e.g., see Granhag, Vrij, & Meissner, 2014). This recent expansion has included, among other topics, interrogators' perceptions of interrogations (Russano, Narchet, Kleinman, & Meissner, 2014), the influence of interrogation settings on outcomes (Dawson & Hartwig, 2013), methods to enhance detainees' ability to recall information (Fisher, Hirn, Robertson, & Selanikio, 2013), and interrogators' ability to detect deception (Vrij & Granhag, 2014). An emerging topic in this expansion is the influence of interpreters on interview and interrogation processes and outcomes.

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Recent work by linguistics scholars has highlighted the influence interpreters can have on processes and outcomes in the legal system (see Berk-Seligson, 2011; Hale, 2007, Hale, 2010). For example, criminal suspects can risk generating false confessions and interrogators can risk generating false leads when interpreters mistakenly distort interrogators' questions or suspects' responses (Berk-Seligson, 2011). In the courtroom, interpreters can significantly alter the impact of strategic language used by attorneys during direct and cross examination, as well as alter the meaning of resulting testimony (e.g., see Hale, 2010). In addition, interpreters can influence how jurors evaluate a witness' credibility, not only by changing the content of the testimony, but also by misrepresenting the witness' manner of speech (Hale, 2007). Interpreters can similarly impact outcomes in interrogations in which the goal is to gather intelligence rather than gain a confession or discredit a witness. In these interrogations, interrogators must often attend to nuanced verbal and non-verbal behavior to establish rapport, assess a detainee's motivations and willingness to cooperate, and determine how best to elicit information (Zimmerman, Leins, Ross, et al., 2013). As conduits between interrogators and detainees, interpreters play a crucial role in delivering critical information that informs how interrogators proceed through an interrogation.

In a recent survey, a sample of military interrogators indicated that they used interpreters roughly 54% of the time and that interpreters almost always influenced the flow of information (Russano, Narchet, Kleinman, & Meissner, 2014). These interrogators also suggested that an interpreter's effect on an interrogation could be positive or negative, depending on the interpreter's skill level, an assertion echoed by U.S. Army doctrine in Field Manual (FM) 2-22.3 (U.S. Department of the Army, 2006). FM 2-22.3 suggests that although interpreters are a critical part of cross-cultural interrogations, they can hinder interrogators' ability to build rapport and elicit information. Research on the use of interpreters in other fields, for example, doctorpatient interactions, reveals that they can commit several types of errors (Davidson, 2000; Gany, Kapelusznik, Prakash, et al., 2007; Pruss, 2008; Valero Garcés, 2005). These errors include:

- Omission: leaving out an important piece of information.
- False fluency: using words or phrases that do not exist in the target language.
- Substitution: replacing a word or phrase with a word or phrase of a different meaning.
- Editorializing: adding opinion to the interpretation.
- Addition: adding a word or phrase.

These errors can result in speakers receiving incomplete, mistaken, or unintended information, leading to suboptimal outcomes, for example misdiagnosis in a clinical setting or faulty intelligence in an interrogation.

In addition to committing interpretation errors, interpreters can alter the course and outcome of an interrogation by assuming different roles. For example, they can assume the role of interrogator and ask tactical questions not asked by the interrogator. They can also assume the role of detainee and answer questions for the detainee. These types of role exchange can violate some professional codes of ethics. For instance, federally certified court interpreters must not "give legal advice, express personal opinions to individuals for whom they are interpreting, or engage in any other activities which may be construed to constitute a service other than interpreting or translating while serving as an interpreter" (Standards for Performance and Professional Responsibility for Contract Court Interpreters in the Federal Courts). However,

professional interpreters may often violate this and similar codes of conduct (e.g., see Kolb & Pöchhacker, 2008). Interpreters in military interrogations may be particularly susceptible to assuming the role of interrogator, as they often view themselves as an integral part of the interrogation team (Russano, Narchet, & Kleinman, 2014) and it is unclear whether they abide by a professional code of conduct. Thus, given that interpreters can distort the meaning of information exchanged between speakers, and assume roles outside the scope of interpreting, it is critical to understand how they might impact the exchange of information and outcomes in intelligence interviews and interrogations.

The current study represents a first step in exploring interactions between interrogators, detainees, and interpreters during interrogations. Using a sample of actual military interrogations, we sought to identify, measure, and characterize the verbal behavior of each speaker. To support this research, the U.S. Government provided a set of video-recorded, interpreter-mediated military interrogations of an Arabic-speaking detainee.[1] The videos were translated and transcribed by individuals with appropriate clearances. The transcripts were reviewed by the High-Value Detainee Interrogation Group (HIG) and all Personally Identifying Information (PII) was removed. The PII-free transcripts were then provided to researchers, who coded the transcripts for several verbal behaviors exhibited by the interrogator, detainee, and interpreter. Here, we report only the findings relevant to the interpreters' verbal behavior. We identify the types and rates of errors made by interpreters and discuss their potential impact on interrogation processes and outcomes.

Method

Interrogation Videos

The data presented here came from videos of 12 interrogation sessions conducted with one Arabic-speaking detainee at an overseas U.S. military detention facility. These sessions were recorded for non-research purposes (U.S. Department of Defense, November 15, 2013).[2] The sessions occurred on different days, at various times of the day. Each interrogation session ranged from approximately 1 to 5 hours in length. The same interrogator conducted each session with the assistance of two interpreters who participated in one session together and worked alone in the remaining sessions. Interpreters engaged in proximate consecutive interpreting: They were in the same room as the interrogator and detainee and interpreted a speaker's utterances only after the speaker stopped speaking. Because of technical or content issues, we could not code two of the 12 interrogation videos. We removed these two videos and transcribed the remaining 10 videos.

Video translation

Four Arabic-speaking interpreters with appropriate government clearances translated the Arabic content to English and transcribed all the English content literally and the Arabic content using pragmatic translation, taking into account the intent and context of the statement. One additional interpreter with clearance reviewed the transcripts for quality assurance and revised

[1] Because these interrogations are classified, we can report only general observations of behaviour; we cannot report specific examples of observed behavior.

[2] Department of Defense (DoD) Directive 3115.09 stipulates that an audio video recording shall be made of each strategic intelligence interrogation of any person who is in the custody or under effective control of the DoD or under detention in a DoD facility, conducted at a theater-level detention facility.

them as necessary. Interpreters also transcribed non-verbal contextual information to enhance coders' understanding of the transcribed exchanges. For example, if a speaker nodded his head to indicate agreement or affirmation, the interpreters noted this in the transcript. They also provided notes to assist coders in understanding Arabic colloquialisms and other culturally unique content, as well as codes to identify when the military interpreter was speaking English versus Arabic. Transcripts were then redacted to remove all PII and given to researchers for coding.

Transcript Coding[3]

We first coded each interrogation transcript for the number of speaking turns observed. Each turn represented an exchange between the interrogator, interpreter, and detainee. A new turn occurred each time the interrogator spoke. Each turn could comprise multiple utterances by either the detainee or the interpreters, but only one utterance by the interrogator. We defined an utterance as all consecutive and uninterrupted word spoken by a speaker. Therefore, one utterance could contain several statements and/or questions, and could receive multiple codes of verbal behavior. For example, a single interpreter utterance could contain interpretations that were free from error and interpretations that were erroneous. The total number of turns across all interrogations was 6,397 (*M* = 649 turns per interrogation, min = 239, max = 1,047). The number of coded utterances ranged from 1,177 to 3,457 (*M* = 2,587) units per interrogation. See Table 1 for further descriptive information.

Table 1. *Descriptive Data per Interrogation Session*

Interrogation session	Number of turns	Number of units	Active interpreter
1	354	1,799	T1, T2
2	239	1,177	T2
3	553	2,688	T1
4	379	1,503	T2
5	712	2,757	T2
6	899	3,221	T2
7	810	3,062	T2
8	829	3,457	T2
9	1,047	3,402	T2
10	575	2,803	T2

Note. Interpreter codes: T1 = Interpreter 1; T2 = Interpreter 2.

Subsequent coding followed a set of schemes developed for a previous study of verbal behavior among participants in law enforcement interrogations (Zimmerman, Marcon, & Leins, 2012). These coding schemes allow categorization of the strategic verbalizations of interrogators and suspects, as well as the type of information disclosed by suspects. We derived these codes from existing research (e.g., see Clark, 2002; Giebels & Taylor, 2009; Kassin et al., 2007; Pearse & Gudjonsson, 1999; Yukl & Falbe, 1990), and from interrogation training and procedure manuals (e.g., U.S. Department of the Army, 2006). To code cross-cultural military interrogations, we modified the previous coding schemes and added codes to account for interpreter verbal behavior. The final coding scheme consisted of 25 discrete codes subsumed by five broad

[3] We provide an abridged description of the coding scheme here. The full codebook is available at https://www.ara.com/projects/investigative-interviewing.

categories of verbal behavior: interpretation, tactics, rapport, questions and answers, and information.

Interpretation coding

The interpretation codes account for interpreters' behavior specific to interpretation. We compared the source messages (utterances) made by the interrogator or detainee with the interpreted renditions of each (for a similar technique, see Simon, Zyzanski, Durand, Jimenez, & Kodish, 2006). We used the code 'gist' to capture when interpreters accurately conveyed the meaning of another speaker's utterance. A gist interpretation could be a verbatim or generally faithful interpretation that conveyed the meaning if not the exact words of the original utterance. For example, if the interrogator said, "I can help protect your brother, but only if you tell me where he is,"[4] and the interpreter captured the critical components of the message in his interpretation, we coded it as a gist interpretation. In this example, the interpreter would have to convey three critical pieces of information: (i) the interrogator (ii) can help protect the detainee's brother (iii) if the detainee provides the brother's location. However, if the interpreter failed to convey critical pieces of information, or otherwise distorted the message, we coded the interpretation as an error using the following error codes:

- Omission: The interpreter did not relay critical pieces of the original utterance, for example, omitting the third component from above, simply conveying that the interrogator can help protect the detainee's brother.
- Substitution: The interpreter replaced portions of the original utterance with a dissimilar message, for example, conveying that the interrogator *will* protect the detainee's brother or that the interrogator can help protect the detainee's *entire family*. This code also includes false fluency errors.
- Addition: The interpreter added substantial content to the original utterance, for example, conveying that the interrogator can help protect the detainee's brother *and his property*, if the detainee tells him where they are. This code also includes editorializing. We did not count minor or linguistically necessary changes as errors if these changes did not alter the meaning of the original utterance. Because an utterance could contain both gist codes and error codes, we calculated separate rates for each. Thus for example, an error rate of .27 for any error indicates that 27 percent of all utterances contained some type of error. Similarly, a gist rate of .82 indicates that 82 percent of all utterances contained faithfully interpreted components.

When interpreters generated original utterances (i.e., utterances not previously spoken by the interrogator or detainee), we coded these as a role exchange and applied the following tactics, rapport, question and answer, and information codes.

Tactics

Tactics comprise comments used by interrogators to persuade detainees to disclose information. The tactics codes account for persuasive utterances, including those in service of emotion-based approaches, rational arguments, incentive-based approaches, confrontation,

[4] This example is fictitious and not drawn from the content of the interrogations we analyzed.

minimization approaches, and a set of other miscellaneous approaches (for detailed information on tactics, see U.S. Department of the Army, 2006; Giebels & Taylor, 2009; Kassin, Leo, Meissner, et al., 2007; Pearse & Gudjonsson, 1999).

Rapport

The rapport codes account for behavior aimed at establishing or highlighting a relationship based on shared values, interests, or other characteristics, for example, identifying common ground, highlighting similarities, developing a connection, and promoting selfdisclosure. The rapport codes also account for behavior that highlights the identity, position, or situation of the detainee, for example, conveying empathy, kindness, or respect (for more information on rapport-building strategies, see Clark, 2002; Clark & Brennan, 1991; Norfolk, Birdi, & Walsh, 2007; Vanderhallen, Vervaeke, & Holmberg, 2011).

Questions and Answers (Q&A)

The questions category accounts for direct questions and clarifying questions. Direct questions include who, what, when, where, why, and how questions. Clarifying questions seek clarification of an utterance, for example, if the utterance is not heard or misunderstood. The answers category comprises six general response codes to account for direct responses to questions, clarifying and repeated utterances, active listening (e.g., indications of tacit agreement, such as 'mm hmm,' or prompts to continue talking), unsolicited statements, non-cooperative responding (e.g., refusals to answer a question), and 'I don't know' responses (see Leo, 1996).

Information

The information codes account for information disclosed relevant either to the speaker, another individual or individuals, or a group of individuals including the speaker, as well as repeated information. These information codes account for a broad range of information that may be of interest to interrogators or analysts.

In addition to the above categories, we coded for changes in the topic of discussion and for unclear or incomplete utterances.

Procedure

Two coders coded each utterance (unit) using a sequence of decision paths. We first coded units according to the direction of information flow (i.e., who was speaking to whom). If the speaker was the interrogator or detainee, or if the interpreter spoke an original utterance, we applied the tactics, rapport, Q&A, and information codes. When the interpreter interpreted the interrogator's or detainee's utterances, we applied the interpretation codes. If an interpreter committed a minor error in interpreting, but the error did not alter the meaning of the original utterance, we coded this as a gist interpretation. We coded interpretations as errors only if those errors significantly altered the meaning of the original utterance. Thus, we set a conservative criterion for coding an interpretation as an error.

When we were unable to identify the intended recipient of a message or were unable to comprehend the message, we coded the unit as problematic. Some utterances were incomprehensible (or inaudible) to transcribers or were interrupted by another participant and left

incomplete. In these cases, we coded the unit as 'no code.' We removed problematic and nocode units from all analyses.

Coders applied all relevant codes during one pass through the transcript and completed a second pass to confirm codes for repeated information. Initial inter-coder reliability was measured using percent agreement and Krippendorff's alpha (*K*-α) on a random subset of 40 turns (93 utterances). The two coders reached 83% agreement across all utterances. *K*-α values indicated good agreement for all sets of codes (tactics and rapport = .95, Q&A = .78, information = .89, and interpretation = .90). These coders double coded all transcripts and identified and reconciled disagreements throughout the coding process.

Results

We calculated frequencies and proportions of each coded verbal behavior, and used ttests to analyze differences in verbal behavior across variables (e.g., interpretation error rates across the direction of information flow).

Interpretation Behavior

By virtue of his participation in nine of ten interrogation sessions, Interpreter 2 (T2) interpreted more than eight times as many utterances as did Interpreter 1 (T1), who participated in only two sessions (see Table 2 for means and independent samples t-test results). Across all interpreted units, T1 and T2 did not differ in their proportions of gist interpretations. Each interpreter interpreted information accurately in at least 82% of interpretation attempts. However, T1's proportion of total errors was over 40% greater than T2's proportion of total errors. Moreover, T1 committed a greater proportion of omissions, substitutions, and additions than did T2. Overall, the interpreters' errors did not correlate with the type of interrogator utterances within the same turn. That is, interpreters were no more likely to commit errors when interpreting interrogator's tactics, rapport building, or Q&A, all *z* scores < 1.62.[5]

Table 2. *Differences in Interpretation Behavior*

	Interpreter 1 (n = 839)		Interpreter 2 (n = 7,073)					
Interpretation type	***M***	***SD***	***M***	***SD***	***t***	***df***	***p***	***d***
Gist	.82	.39	.84	.37	1.62	1025	.11	0.05
Any error	.27	.45	.19	.39	5.53	997	< .001	0.20
Omission	.11	.31	.07	.25	3.60	974	< .001	0.16
Substitution	.12	.32	.08	.28	2.98	990	.003	0.14
Addition	.07	.25	.04	.20	3.03	963	.003	0.15

Note. Utterances could comprise multiple units that could be scored separately as gist or an error, resulting in gist + error proportions greater than 1.0.

[5] Z scores represent standard deviations from zero. A standard deviation of zero represents a chance occurrence. Standard deviations exceeding 1.96 differed from chance with statistical significance at α = .05.

T1 and T2 committed different patterns of errors across different directions of interpretation. T1 made more errors interpreting Arabic to English (detainee to interrogator) than vice versa. T1 was also more likely to produce gist interpretations when interpreting English to Arabic than when interpreting Arabic to English (see Table 3 for means and paired-sample t-test results). By contrast, he was more likely to commit more errors when interpreting Arabic to English than vice versa. This difference held when the outcome was any error (collapsed across omission, substitution, and addition), but no differences in any individual error category reached statistical significance.

Table 3. *Interpreter 1: Mean Interpretation Behavior by Direction of Information per Session*

	Arabic to English		English to Arabic					
Interpretation type	***M***	***SD***	***M***	***SD***	***t***	***df***	***p***	***d***
Gist	.80	.40	.85	.36	2.00	827	.046	0.13
Any error	.30	.46	.24	.43	2.07	825	.039	0.14
Omission	.13	.33	.09	.28	1.90	825	.058	0.16
Substitution	.13	.34	.10	.31	1.30	827	.194	0.09
Addition	.07	.26	.06	.24	0.66	827	.510	0.04

There was no difference in T2's tendency to produce gist interpretations or commit errors in general across the direction of information flow (see Table 4 for means and paired-samples ttest results). However, T2 tended to make more omission and addition errors when interpreting English to Arabic than vice versa, and more substitutions when interpreting Arabic to English than vice versa.

Table 4. *Interpreter 2: Mean Interpretation Behavior by Direction of Information per Session*

	Arabic to English		English to Arabic					
Interpretation type	***M***	***SD***	***M***	***SD***	***t***	***df***	***p***	***d***
Gist	.83	.37	.85	.36	1.51	7026	.130	0.06
Any error	.19	.39	.18	.39	0.38	7054	.706	0.03
Omission	.06	.24	.08	.26	2.11	7032	.035	0.08
Substitution	.10	.30	.07	.25	4.53	6807	< .001	0.11
Addition	.03	.18	.05	.21	2.49	6969	.013	0.10

To better understand the pattern of interpretation errors within directions of information flow, we compared these error rates for Interpreter 2 (see Figure 1).

English to Arabic

A paired-samples t-test revealed that, when interpreting the interrogator's utterances from English to Arabic, T2 was more likely to omit information (M = .08, SD = .27) than add information (M = .05, SD = .21), $t(3579) = 5.30$, $p < .001$, d = .09. T2 was also more likely to substitute information (M = .07, SD = .25) than add information (M = .05, SD = .21), $t(3579) = 4.33$, $p < .001$, d = .06. T2 demonstrated no difference in omissions (M = .08, SD = .27) versus substitutions (M = .07, SD = .25), $t(3579) = 0.93$, d = .35.

Arabic to English

A paired-samples t-test revealed that, when interpreting the detainee's utterances from Arabic to English, T2 was more likely to substitute information (M = .10, SD = .30) than omit information (M = .06, SD = .24), $t(3475) = 5.61$, $p < .001$, $d = .11$. T2 was also more likely to substitute information (M = .10, SD = .30) than add information (M = .03, SD = .18), $t(3475) = 10.95$, $p < .001$, $d = .10$, and more likely to omit information (M = .06, SD = .24) than add information (M = .03, SD = .18), $t(3475) = 5.58$, $p < .001$, $d = .21$.

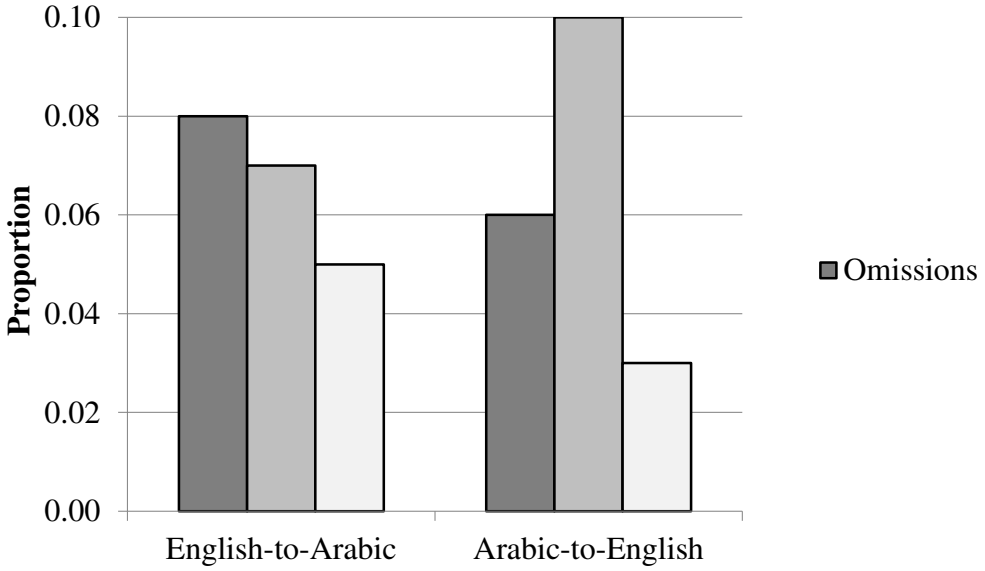

Figure 1. *Difference in T2 interpretation errors across direction of interpretation.*

Non-Interpretation Behavior

Interpreters rarely engaged in non-interpretation behavior (see Table 5). The majority of their non-interpretation behaviors comprised questions and answers. They asked a large proportion of clarifying questions, which they were over five times more likely to ask of the detainee (n = 2,985) than of the interrogator (n = 548). T1 asked a larger proportion of direct questions than did T2, whereas T2 engaged in a larger proportion of active listening than did T1. When interpreters responded to questions, they largely provided clarifying responses.

Role exchange behaviors (i.e., utterances originating from interpreters) accounted for a minority of interpreters' non-interpretation behaviors. Their use of tactics accounted for at most three percent of all coded units. However, when interpreters employed tactics, they tended to use rational arguments, incentive-based tactics, and confrontation. T1 was three times more likely than T2 to use tactics. Similar to their use of tactics, interpreters rarely engaged in rapport building. This behavior generally occurred during greeting and when terminating the interrogation. Interpreters rarely disclosed information, accounting for 1% or less of all of their utterances. An independent samples t-test revealed that T1 was more likely to engage in any role exchange behavior (M = .14, SD = .35) than was T2 (M = .05, SD = .21), $t(1940) = 10.88$, $p < .001$, $d = .39$.

Table 5. *Mean Frequency and Proportions of Interpreters' non-Interpretation Behavior per Session*

			Proportion of all question type					
Interpreter	**Question frequency**	**Proportion of interpreter utterances**	**Direct**	**Clarifying**			**Active listening**	
T1	184	.21	.35	.43			.27	
T2	79	.07	.20	.40			.39	
			Proportion of all answer type					
	Answer frequency		**Direct**	**Clarifying**	**Statement**	**NC**	**IDK**	
T1	140	.17	.22	.41	.36	.01	.00	
T2	116	.11	.28	.43	.26	.01	.02	
			Proportion of all tactics					
	Tactics frequency		**Emo**	**Rat**	**In**	**Con**	**Min**	**Other**
T1	26	.03	.10	.26	.29	.30	.08	.00
T2	7	.01	.02	.12	.41	.23	.04	.06
			Proportion of all rapport					
	Rapport frequency		**Relational**				**Identity**	
T1	23	.03	.57				.43	
T2	13	.01	.87				.13	
			Proportion of all information type					
	Information frequency		**Self**	**Other**	**Both**	**Repeat**		
T1	7	.01	.32	.64	.00	.05		
T2	11	.01	.29	.35	.06	.08		

Note. Abbreviated tactics codes are emotional (Emo), rational (Rat), incentive (In), confrontation (Con), and minimization (Min). Abbreviated answer type codes are non-cooperative (NC) and I don't know (IKD). Proportions in parentheses use the total number of the identified interpreter's utterances as the denominator.

Discussion

Studies of interpreters in other domains, for example in medical consultations, suggest that interpreters introduce a source of error and disruption that can result in confusion, lost information, and egregious misunderstanding (for a review, see Flores, 2005). Although it is difficult to make direct comparisons between the performance of interpreters in this study and that of interpreters in other studies, T1 and T2 performed relatively well, interpreting parts of utterances accurately at least 82% of the time. This rate is comparable to those found in two studies of interpreted clinical consultations. In one study, trained interpreters who practiced proximate, consecutive interpreting committed 0.18 clinically significant errors per interpreted utterance (Gany, Kapelusznik, Prakash, et al., 2007). T2's error rate was comparable at 20%. Another study reported an error rate of roughly 26% for interpreters whose level of training was undocumented (Simon, Zyzanski, Durand, Jimenez, & Kodish, 2006). T1's error rate was comparable to this, at 27%. Errors of omission and substitution were generally more common than errors of addition. This pattern is similar to the pattern of errors observed by Flores and colleagues (2003) in a review of errors committed by medical interpreters. However, despite

committing errors, the interpreters we observed, particularly T2, did not necessarily prevent the primary speakers from engaging in coordinated conversation (Leins, Zimmerman, & Cheng, 2014). Moreover, it is encouraging that the interpreters' errors did not correlate with any type of interrogator utterance. Interpreters were no more likely to commit errors when interpreting a nuanced tactic or an attempt to build rapport than when interpreting a direct question.

Less encouraging was that interpreters sometimes assumed the role of interrogator and engaged in tactical communication with the detainee. Role exchanges can be problematic, particularly if interpreters are not proficient in interrogation methods. Interrogators report that determining the right tactic and when to apply it requires self-awareness, adaptability, and continual assessment of the detainee and his motivations (Zimmerman, Leins, Ross, et al., 2013). Applying the wrong tactic or applying a tactic at the wrong time can render a detainee uncooperative. Thus, an untrained interpreter might, with good intention, assume the role of interrogator and apply a tactic unskillfully or at the wrong time. This could lead a detainee to become uncooperative and preclude the interrogator from eliciting information. Fortunately, we observed few role exchanges among interpreters in this study and they were as likely to be attempts at rapport building as they were to be tactical questioning. However, it is notable that T1 was more likely than T2 to exchange roles and to commit any interpretation error. Perhaps as a result, he did not return to interpret for this interrogator and detainee after two appearances. Alternatively, perhaps T2 was simply more proficient and a better fit with this particular interrogation dyad. If T2 developed rapport more easily with both the detainee and interrogator, this may have led to more opportunities to interpret in subsequent interrogation sessions (see Russano, Narchet, & Kleinman, 2014, for an analysis of interpreters' perceptions and insights regarding interrogations and developing an interrogation 'team').

Also notable, the interpreters committed different patterns of errors when interpreting in different directions. T1 was particularly poor at interpreting Arabic utterances into English, most often committing errors of omission. By contrast, T2 committed more substitutions when interpreting Arabic to English, but more omissions and additions when interpreting English to Arabic. Perhaps these different patterns of errors resulted from differences in how interpreters organize different languages in memory. For example, bilingual speakers often rely on conceptual representations in semantic memory when interpreting from one language to another (e.g., see Kroll & Stewart, 1994). If one language associates more strongly with semantic concepts than does the other language, retrieval and interpretation differences may occur across different directions of interpretation (see also Basnight-Brown & Altarriba, 2007). Alternatively, different patterns of errors may have resulted from interpreting the idiosyncratic phrasing of one speaker versus the other rather than the general lexical quality of the language spoken. For example, one speaker may have used more colloquialisms than the other, and if the interpreter had difficulty interpreting colloquialisms, his interpretations might have incorporated more substitutions as a result of the phrasing rather than the language. Given the confounding of language and speaker in this study, we cannot tease apart the relative influences of language and speaker.

Limitations and Future Directions

These data represent the behavior of only one interrogator, one detainee, and largely one interpreter. Thus, we cannot generalize the results to all interpreter-mediated interrogations. Despite this limitation, the results are informative and raise additional questions about the role and influence of interpreters in intelligence interviews. For example, Future studies could explore

whether interpreting in different directions instantiates different cognitive processes. If interpreters engage different processes depending on the direction of interpretation, they may commit different errors. Understanding how cultural knowledge can help or hinder an interrogation is also critical. Interrogators often rely on interpreters to convey cultural nuances that would otherwise be lost in literal interpretation. However, interpreters' cultural knowledge can interact with their knowledge of the language and understanding of the professional context to either enhance or degrade an interrogation. This can introduce bias and affect how speakers receive and respond to information, which can be detrimental to an interrogation, particularly if it goes unnoticed by the interrogator. Future research should explore the relative influences of interpreters' language proficiency, cultural knowledge, and potential bias on interrogation outcomes.

Unfortunately, we could not draw conclusions about the relationship between the interrogator and either interpreter. In previous studies, interrogators indicated that comfort, familiarity, and trust with an interpreter are critical to operating successfully (e.g., see Perez & Wilson, 2007; Zimmerman, Leins, Ross, et al., 2013). We do not know how much control the interrogator had in selecting his interpreters, nor do we know the extent of their pre-interrogation interactions. Interrogators have indicated that coordinating with an interpreter before beginning an interrogation can be critical to interrogation outcomes (Russano, Narchet, Kleinman, & Meissner, 2014). Future studies should explore the effect of pre-interrogation coordination or familiarity between interrogators and interpreters on interrogation outcomes and mediating factors such as the likelihood of interpreters to exchange roles within an interrogation.

Conclusion

This set of interrogations presented a unique opportunity to measure the verbal behavior of interpreters, and specifically establish an example base rate of interpretation errors, in an intelligence gathering context. Because many military interrogations will involve detainees who do not speak English, it is critical to know how interpreters influence the interrogation process. Although not generalizable, we hope that the data here offer some insight and inspiration to researchers who will advance the understanding of how interpreters interact with primary speakers in interrogations and influence interrogation outcomes.

that any evidence derived from an interview is admissible in court (Marin, 2004)[1.] Over the past five years, two programs of research have been assessing the comprehensibility of police cautions being used by Canadian police organizations. The current paper reviews the findings from those programs of research. In particular we discuss: (i) the comprehensibility of Canadian police warnings, (ii) potential explanations for the observed lack of comprehension, and (iii) ways to increase comprehension levels through the restructuring of police warnings. Broadly, we show how psychological principles and knowledge can be mobilized to achieve positive change for this important area of investigative interviewing.

As mentioned, detainees facing an interview in Canada are afforded the right to silence and the right to legal counsel. The right to silence is derived from section 7 of the Canadian Charter of Rights and Freedoms (1982; henceforth referred to as The Charter), which states that "everyone has the right to life, liberty and security of the person and the right not to be deprived thereof in accordance with the principles of fundamental justice." As outlined in subsequent case law, this right means that interviewees must be given a free choice about whether or not to speak to the police and that the police cannot overtly interfere with this right (e.g., offer promises or threats in exchange for a confession; *R* v. *Herbert*, 1990). Although there is no apparent

requirement for police officers to advise people of the right to silence (that is the role of legal counsel), detainees are cautioned routinely about this right because a failure to do so could potentially affect the perceived voluntariness of any subsequent statements and jeopardize admissibility of evidence in court[2].

The right to legal counsel is outlined in section 10(b) of The Charter and states that "everyone had the right on arrest or detention to retain and instruct counsel without delay and to be informed of that right." As clarified in subsequent cases (i.e., *R* v. *Bartle*, 1994; *R* v. *Brydges*, 1990), the right to legal counsel includes the following four basic rights: (i) to retain and instruct counsel (i.e., a lawyer) without delay; (ii) to access immediate, temporary, legal advice irrespective of financial status (duty counsel); (iii) to obtain basic information about how to access available services that provide free, preliminary legal advice (e.g., phone number); and (iv) to access legal counsel free of charge when an accused meets prescribed financial set up by provincial legal aid plans. Police officers are requires to make detainees aware of these rights, and give them an opportunity to exercise them prior to carrying out an interview.

The main purpose of providing the two aforementioned rights is to help balance the inherent power differential between the detainee and the police interviewer. In order to ensure that these rights are accomplishing this goal, legal rulings in Canada dictate that the rights contained in police cautions can be waived only if the interviewee has full knowledge of those rights and a full appreciation of the consequences of giving up those rights (*Clarkson* v. *The Queen*, 1986; *Korponay* v. *Attorney General of Canada*, 1982). In order to fulfil this requirement, law enforcement officers typically read passages on text containing the aforementioned legal rights, known colloquially as cautions, to adult detainees. Absent special circumstances (e.g., obvious mental disability, language issues, declared lack of understanding), the courts appear to be satisfied that an individual is informed fully of his or her legal rights – and are therefore protected properly and capable of making an informed decision about waiving their rights – if a caution is simply recited aloud a single time (*R* v. *Brydges*, 1990).

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