An Analysis of Rehearsed Speech Characteristics on the Oral Proficiency Interview—Computer (OPIc)

Gwyneth Elaine Gates
Brigham Young University

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An Analysis of Rehearsed Speech Characteristics on the Oral
Proficiency Interview—Computer (OPIc)

Gwyneth Elaine Gates

A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of

Master of Arts

Troy L. Cox, Chair
William G. Eggington
Teresa R. Bell

Department of Linguistics and English Language
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ABSTRACT

An Analysis of Rehearsed Speech Characteristics on the Oral Proficiency Interview—Computer (OPIc)

Gwyneth Elaine Gates
Department of Linguistics and English Language, BYU
Master of Arts

The ACTFL Proficiency Guidelines identify memorized words and phrases as a hallmark of novice-level speech. For this reason, research by Cox (2017) found rehearsed content to be a major hindrance to interviewees being rated at higher sublevels on the Oral Proficiency Interview-computer (OPIc). To further investigate, an analysis of these memorized segments to determine patterns of lexico-grammatical and discursive features was conducted. In this study, researchers utilized a Praat analysis to compare prosodic features (specifically, mean length of utterance, number of silent pauses, and articulation rate) of speech segments marked as memorized and those which were not. A qualitative analysis was also conducted by identifying via a grounded theory approach any notable patterns both within single interviews as well as between speakers. Articulation rates differed significantly between the spontaneous and rehearsed segments; however, the strongest evidence of memorization lay in the transcriptions and the patterns that emerged within and across interviews.

Keywords: rehearsed speech, fluency features, speaking assessment, OPIc
ACKNOWLEDGEMENTS

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This paper would not exist without my chair, Dr. Troy Cox, whom I approached a year and a half ago after hearing about his excellent mentorship of graduate students and interesting research projects. He suggested this topic to me after learning that I had a connection to South Korea and has continued to advise and support me throughout the research and writing process. I am also grateful for Dr. Cox's encouragement to present my findings at local and national conferences, which I may not have had the gumption to do otherwise.

I also owe thanks to the wonderful professors of the BYU TESOL MA program, my loving cohort, and my students at the BYU English Language Center who remind me daily why I chose to pursue this degree. Last but certainly not least, I thank my parents, Larry and Jenny Gates, and my sister, Vivian, who have exemplified service, diligence and lifelong learning every day I have been blessed to know them.
PREFACE

This paper includes frequent references to the American Council on the Teaching of Foreign Languages (ACTFL) proficiency guidelines and to language assessments that use them, specifically. The manuscript will be prepared and submitted to the official scholarly journal of ACTFL, Foreign Language Annals. Due to this paper's additional focus on English education in South Korea, other journals considered for submission include the Korea TESOL Journal and English Teaching (the journal of the Korea Association of Teachers of English).

Foreign Language Annals and English Teaching require formatting in the American Psychological Association 6th Edition style, which this paper follows. Korea TESOL Journal has no formatting requirements. The journals limit submissions to 10,000, 8,000 and 9,000 words, respectively. This paper is approximately 8,000 words in length.
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Introduction

Globalization has led to a demand for English skills unlike ever before. Some companies, even if founded and based in countries where English is not an official or common language, are enforcing language policies to make themselves more competitive and better communicators in a global market. In recent years, several South Korean corporations such as Samsung have begun to require of their employees the Oral Proficiency Exam-computerized (OPIc), a computerized adaptation of the ACTFL (American Council on the Teaching of Foreign Languages) Oral Proficiency Interview (OPI).

The OPIc holds the same objective as the OPI of holistically assessing a speaker's proficiency through a series of oral prompts designed to elicit certain types of speech. In justifying the OPIc, one Korean executive explained that "the English ability required by the Samsung Group is a person who can speak their own thoughts as they wish" (Myung, 2012). Similarly, ACTFL defines proficiency as the “ability to use a language to communicate meaningful information in a spontaneous interaction, and in a manner acceptable and appropriate to native speakers of the language.” (ACTFL, 2012d, p. 4).

However, it appears that examinees still attempt to cram for the interview by memorizing scripts (Cox, 2017). Raters in his study, without prompting, indicated the presence of rehearsed material: within the sample of 300 Korean OPIc exams, 20% of rater comments included notes of rehearsed material. The fact that none of these raters in this study were asked to identify rehearsed material yet several did suggest that this issue merits further investigation. Although Cox's study was not ongoing, memorization on the OPIc has proven pervasive enough that ACTFL has begun to train raters on how to recognize and detect rehearsed speech (for example, each segment rated online includes a checkbox wherein the rater can indicate whether the
segment is RM, or rehearsed material). Memorized utterances are mentioned explicitly in the ACTFL guidelines as an indicator of novice speech, which indicates the significance of this problem from a proficiency rating standpoint. Understanding the nature of this issue lies not only in identifying what is speaking proficiency, but also how educational traditions and practices differ across cultures.

**Review of Literature**

**Rote Learning and Language Proficiency**

Rote learning is defined as the memorization of material and the recalling of the material when the time comes for test or performance. Many researchers agree that memorization can be a helpful strategy for mastering L2 vocabulary and formulaic sequences (van Hell & Mahn, 1997; Boers, Eyckmans, Kappel, Stengers, & Demecheleer, 2006), improving speaking (Takeuchi, 2003), and performing well on tests (Kember, 2000). However, the usefulness of relying heavily upon rote learning to attain second language proficiency is questioned (Wray & Fitzpatrick, 2008). Bloom (1956) similarly argues in his *Taxonomy of Educational Objectives* that critical thinking and creating with learned material are better demonstrators of higher-level processing than recall alone: "Knowledge is of little value if it cannot be utilized in new situations or in a form very different from that in which it was originally encountered" (p. 29).

In that same vein, ACTFL proficiency standards are designed so that to move beyond the novice level, the interviewee must prove the ability to spontaneously create with the language. While novice-level speakers primarily use "isolated words and phrases that have been encountered, memorized, and recalled," a key characteristic of intermediate speakers is their ability to "create with the language when talking about familiar topics…[and] recombine learned material in order to express personal meaning" (ACTFL, 2012). Because of this, any rehearsed
material observed during the interview cannot be properly analyzed by raters, nor can it serve as
evidence of intermediate-level speech. By ACTFL’s standards, reliance upon rehearsed material,
even if that material is applied to various tasks, separates language *performance* from *proficiency*
(see Table 1, line 2).

Table 1.

*Language Performance vs. Language Proficiency* (ACTFL, 2012d, p. 5)

<table>
<thead>
<tr>
<th>Assessing Performance</th>
<th>Assessing Proficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Based on instruction:</strong> Describes what the language learner can demonstrate based on what was learned.</td>
<td><strong>Independent of specific instruction or curriculum:</strong> Describes what the language user can do regardless of where, when or how the language was acquired.</td>
</tr>
<tr>
<td><strong>Practiced:</strong> Tasks are derived from the language functions and vocabulary that learners have practiced or rehearsed but which are applied to other tasks within familiar contexts.</td>
<td><strong>Spontaneous:</strong> Tasks are non-rehearsed situations.</td>
</tr>
<tr>
<td><strong>Familiar content and context:</strong> Content based on what was learned, practiced, or rehearsed; all within a context similar but not identical to how learned.</td>
<td><strong>Broad content and context:</strong> Context and content are those that are appropriate for the given level.</td>
</tr>
<tr>
<td><strong>Demonstrated performance:</strong> To be evaluated within a range, must be able to demonstrate the features of the domains of a given range in those contexts and content areas that have been learned and practiced.</td>
<td><strong>Sustained performance across all the tasks and contexts for the level:</strong> To be at a level, must demonstrate consistent patterns of all the criteria for a given level, all of the time.</td>
</tr>
</tbody>
</table>
Influences Within Asian Education Systems

Asian countries such as China, Korea, and Japan have a learning tradition and testing culture that, some have posited, traces many of its roots to Confucianism (Seth, 2002; Cooke & Kim, 2017)--a term likely coined due to the Chinese scholar Confucius' lifelong promulgation of virtue, morality, and education (Yao, 2000). Confucianism, "both a tradition of literature and a way of life" (Yao, 2000, p. 11), rose to Chinese state orthodoxy by the second century BCE. Though it is no longer the official state dogma of any country today, the influence of Confucianism has permeated Asian beliefs, societal expectations, government, and educational practices (Shin, 2012; Yao, 2000).

A key teaching of Confucius was employment according to ability, and testing became a key factor upon which those meritocratic positions were based. The Korean government, which had adopted Confucian practices after colonization in the north by Chinese in approximately the start of the Common Era, established its imperial civil service examination (the gwangeo) in the 8th century and administered the test intermittently until the conclusion of the Joseon dynasty in the 1890s (Shin, 2012; Cooke & Kim, 2017).

Standardized tests became the trusted method to assess qualifying contenders for government positions, and test preparation became increasingly significant as not only an employment tool, but an obscurant of traditional class lines (Deuchler, 1992; Seth, 2002):

Confucianism was then and later intimately connected with the search for rational standards that would weaken, if not sever, the indigenous link between the prerogatives of birth and political participation and would condition advancement to high office on achievement (Deuchler, 1992, p. 15).
In his use of ancient texts to justify his teachings, Confucius modeled a tendency toward selecting well-established solutions, a practice in which "free thought and individual expression were discouraged, giving way to the safer and surer domain of classical quotation" (Becker, p. 77). Likely resulting from the combination of Confucian emphasis on reference to authority and testing culture, rote learning and production became a practical and encouraged method of learning throughout Asia (Keong-kyu, 2000; Cooke & Kim, 2017; Becker, 1986).

**Increased Demand for English Proficiency Assessment in South Korea**

South Korea is a notable example of globalization's impact on use of English in the international workplace. In the wake of the Asian financial crisis of 1997, Korean companies became more interested in assessing applicants' flexibility and adaptation skills within a global workplace--particularly their ability to communicate in that international environment (Park, 2011). In a series of interviews spanning 2004 to 2010, Jambor and Sylvestre found that 17% of South Korean job interviews were conducted anywhere from 50 to 80 percent in English, while six percent of interviews were carried out entirely in English.

However, as Bae Jae-keun, CEO of the e-learning company Credu, explained, "Although many companies conduct English interviews, it is not easy to evaluate a lot of candidates at one time, and interviewers may not give unbiased, objective evaluations" (Whan-yung, 2009). For several years, South Korean employers used the Test of English for International Communication (TOEIC) as a standard of English proficiency. Compared to the traditional written English tests used in years past, the TOEIC (which focuses on business English) was a far more practical option for both companies and their employees, and the number of test takers soared in the following years (Park, 2011).
Until 2006, the TOEIC featured no speaking or writing sections, and all questions were presented in multiple-choice format. The International Communication Foundation (ICF), which administered the TOEIC in South Korea, justified recycling of past questions for the sake of maintaining anchor questions. The practice was discontinued in 2003, but not before one teacher "was able to tell his students that if the term 'South Korea' is found in a question, the correct answer is 'strategic'" (Chosun Ilbo, 2005b). For these reasons, by 2005, corporations such as SK, Industrial Bank of Korea, and Pantech & Curitel had done away with the TOEIC requirement entirely (Chosun Ilbo, 2005b), while others demoted the TOEIC from its make-or-break status to simply one more criterion of many within the job application process (Park, 2011). The TOEIC may have been a more standardized, objective test of workplace English than past assessments, but its gradual decline in popularity among companies lay in its neglect of communication skills overall.

The OPI and OPIc

Since many companies have "switched their preferred mode of assessment to methods that can directly observe the candidate's oral language skills" (Park, 2011, p. 449), oral proficiency tests such as the Oral Proficiency Interview (OPI) have begun to eclipse the TOEIC in South Korea, a trend evidenced by YouTube OPIc prep videos (Lee, 2013; Hackers Education Group, 2014), courses designed to help attendees reach their ideal OPIc score, and even job postings specifically for OPIc teachers (HiEnglish Korea, 2015).

The OPI is a global assessment in which speakers are rated holistically, receiving a score according to the ACTFL Proficiency Guidelines. Interviewees participate in a conversation with a trained rater, who asks a series of questions and analyzes participant responses to determine his or her speaking level. The interview is subsequently rated by a second trained evaluator, after
which a rating is determined. This proficiency level could be any one of the ten rated proficiencies designated by ACTFL: Low, Mid, or High at the Novice, Intermediate, or Advanced levels, or Superior. (ACTFL, 2012a).

Increased demand for the OPI has led to the development of the Oral Proficiency Exam-computerized (OPIc). Delivered via computer avatar, the OPIc allows for proctored testing anywhere with internet access. After completing a brief survey of their self-assessed language level and personal interests, interviewees are assigned one of five OPIc test forms. The avatar gives prompts relating to the interviewee’s interests, and the interviewee’s responses are recorded and double rated (ACTFL, 2012b).

The fundamental difference between the OPI and OPIc is that the first is completed either face-to-face or over the phone while the second does not allow for participants to communicate with raters in real time. Although conducting the interview via avatar increases test practicality and convenience, Thompson, Cox, and Knapp (2016) found the majority of participants sampled preferred the OPI over the OPIc, despite 31.8% of them having performed better on the latter than the former. Several participants cited the OPIc's lack of personal interaction--and, consequently, feedback and ease of conversation--as a primary reason they preferred the OPI.

**Previous Studies of Korean L1 OPIc Interviews**

In a study funded by Credu (a Samsung affiliate) which aimed to identify the strengths and weaknesses of Intermediate-level English learners based upon linguistic characteristics of particular tasks, Cox (2017) analyzed recordings of 300 Korean OPIc examinees. The author sought to determine the linguistic features of the three Intermediate subgroups (Low, Mid, and High), as well as which features of the sampled responses prevented the examinees from achieving the next highest sublevel.
One surprising finding OPIc raters observed was the presence of “rehearsed material or canned/memorized responses” (Cox 2017, p. 17) in approximately 20% of the IL recordings and 12% of the IM recordings. Because such indication of supposed memorized material was not required of raters there may have been additional rehearsed segments which were not identified. These detected occurrences of rote speech were noted qualitatively in raters’ comments. In several cases, the presence of rehearsed material resulted in a holistic rating of Does Not Meet Expectations for that segment (Cox, 2017). This is particularly a problem on the OPIc, because while OPI raters can redirect, clarify, and probe in real time, OPIc raters “must listen for telltale signs of rehearsed responses and then exclude that sample as evidence that the examinee can create with the language” (Cox, 2017, p. 104).

According to the ACTFL proficiency guidelines, a novice-level English speaker “can communicate minimally with formulaic and rote utterance, lists, and phrases” (2012a, p. 4). Memorized material offers evidence of only novice-level speech, so an examinee who has the ability to create with language at the intermediate level but reverts to only memorized scripts is underrepresenting their true language ability. For this reason, rehearsed content was identified by Cox (2017) as yet another factor which limited OPIc interviewees from progressing to a higher sublevel.

Examining more closely the characteristics of rehearsed speech in the OPIc stands to benefit new ACTFL raters, who may be unsure of how to proceed objectively when presented with what sounds like rehearsed material. It may also serve a warning to those who consider memorizing soliloquies an effective strategy for the OPIc. Moreover, when scoring these segments, OPIc raters in the Cox study (2017) in most cases did not specify why they thought the material had been memorized, as such specification is not required by ACTFL. The research
questions of this thesis revolve around how these raters decided the responses had been rehearsed beforehand; in other words, identifying the characteristics which distinguish the segments marked as memorized from those which are not.

For the temporal fluency measures of this study, articulation rate, rather than speech rate, was selected as a measure of speed. Speech rate, or the total time spent speaking, is calculated by dividing the total number of syllables the total seconds of speaking time--including all silent pauses. A high number of pauses, even those which occur naturally and normally according to the prompt given, will increase the total seconds of speaking time and thus drive down the speech rate. For example, responses comprised of questions (e.g. Ask me three questions to find out more about my vacation) or lists (e.g. Describe the steps of your morning routine) may naturally contain more pauses than a prompt which calls for a more narrative response (e.g. Tell me about a time when you experienced success at work). Thus, prompt type impacts speech rate. In contrast, articulation rate is described by De Jong (2016) as "a pure measure of speed" (p. 212) because it is the total number of syllables divided by phonation time, which does not include any silent pause time.

The number of silent pauses and mean length of utterance (MLU) were selected as measures of speaker breakdown. These measures are correlated, being the inverse of one another, and were chosen as indicators of breakdown within speech because as a speaker's sentences become shorter and more halted, the MLU also decreases. A lower MLU and higher number of silent pauses can indicate speech that is less proficient due to its lack of connectivity.

By identifying recurring patterns of linguistic characteristics within these rehearsed segments, this study aimed to determine key differences between memorized and spontaneous
speech on the OPIc, potentially authenticating observations based solely on rater impressions and not technical evidence. The research questions of this study are as follows:

1. What quantitative differences can be found in temporal fluency measures between the rehearsed and spontaneous samples?

2. What qualitative observations can be made from the transcripts of the audio recordings?

**Method**

**Instrument**

This research used extant ACTFL OPIc data. The form contained 15 prompts with each prompt representing a specific task type. Some task types are administered on more than one instance. For this research, a subset of task types was sampled from the test. For the IL interviewees, analyses were conducted on six speech task types: *talk about thing or place* (for which there were two tasks), *talk about activity or routine, ask questions, intermediate roleplay*, and *past description*. The analyses for the IM interviewee included the task types of *past narration, advanced* and *roleplay*, in addition to the five task types given in the IL form, for a total of seven.

As discussed in the review of literature, OPIc participants like those of this sample were assigned one of five test forms according to their surveyed interests. The avatar provided the prompts based interviewee’s interests from the survey, and the interviewee’s responses were recorded and double rated (ACTFL, 2012b). This analysis focused on a six- to seven-task subset which had been selected in the previous study by Cox (2017, see Table 2).

**Participants**

In this earlier study, researchers conducted a stratified random sampling from a bank of English OPIc assessments. In order to control for L1 variance, the only exams sampled were
those of native Korean speakers. To qualify for selection, each interview had to have been scored in perfect agreement by 2 or more raters. This selection process yielded three hundred interviews, which were analyzed by 9 trained raters who identified memorization as a hindrance to sublevel advancement (Cox, 2017).

Table 2.

*Descriptions of Task Type Analyzed by Intermediate Sublevel*

<table>
<thead>
<tr>
<th>Task Type Description</th>
<th>IL</th>
<th>IM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talk about thing or place</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Talk about an activity or routine</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Ask questions</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Intermediate roleplay</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Past description</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Past narration</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Advanced roleplay</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

**Procedures**

"Canned/memorized responses" and "rehearsed material" (p. 100) were rater terms quoted in the Cox (2017) study. A closer look at comments revealed that raters often used the abbreviation of "RM" or "RMAT." Participants who at any point were flagged for rehearsed material were found by filtering rater comments with the words *rehearsed, memorized, canned, practice, RM,* or RMAT. For the purposes of this study, any segments not flagged for memorization were operationalized as *spontaneous.* Thirty-nine participants IL (n = 24) and IM (n = 15) had been flagged by the original raters in any one of the 6-7 OPIc tasks for memorization, yielding 69 rehearsed and 178 total spontaneous segments (Figure 1). Each interview contained an average of 1.77 rehearsed tasks and 4.56 spontaneous.
Figure 1. Flowchart illustrating the process for quantitative study.

Quantitative

To analyze the samples quantitatively, the syllable nuclei Praat script of De Jong and Wempe (2009) was used to find the mean length of utterance (MLU), number of silent pauses (SP), and articulation rate (AR) for each segment (rehearsed and spontaneous) in all flagged interviews (see example, Table 3). As mentioned earlier, it was determined that the speed measure of each sample would be determined by articulation rate, while speaker breakdown would be gauged through MLU and number of silent pauses. After compiling data for all three fluency measures, the overall average MLU, SP, and AR were noted for each of the 39 interviewees. One of the interviews had existing background noise which prevented detection of
MLU and number of silent pauses, but not articulation rate, resulting in an $n$ of 38 for MLU and number of silent pauses and 39 for articulation rate (Table 4). The overall averages for the entire sample in both spontaneous and rehearsed segments were then calculated.

Table 3.

_Praat Data Sample of IL Interviewee_

<table>
<thead>
<tr>
<th>Task type</th>
<th>Task level</th>
<th>Status</th>
<th>MLU</th>
<th>SP</th>
<th>AR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talk about thing or place</td>
<td>Int</td>
<td>Spon</td>
<td>3.03</td>
<td>0.47</td>
<td>3.47</td>
</tr>
<tr>
<td>Talk about an activity or routine</td>
<td>Int</td>
<td>Spon</td>
<td>3.32</td>
<td>0.44</td>
<td>3.68</td>
</tr>
<tr>
<td>Intermediate roleplay</td>
<td>Int</td>
<td>Spon</td>
<td>2.96</td>
<td>0.53</td>
<td>3.66</td>
</tr>
<tr>
<td>Talk about thing or place</td>
<td>Int</td>
<td>Spon</td>
<td>3.05</td>
<td>0.59</td>
<td>3.60</td>
</tr>
<tr>
<td>Ask questions</td>
<td>Int</td>
<td>Spon</td>
<td>3.60</td>
<td>0.43</td>
<td>3.84</td>
</tr>
<tr>
<td>Past description</td>
<td>Adv</td>
<td>Re</td>
<td>2.97</td>
<td>0.54</td>
<td>3.97</td>
</tr>
</tbody>
</table>

**Qualitative**

For a detailed qualitative analysis, all 247 segments were transcribed and examined using a grounded theory approach for differences between rehearsed and spontaneous segments of within individual interviews as well as for patterns occurring in the spontaneous segments throughout all participants' interviews.

A grounded theory approach was used to conduct the qualitative analysis of the segments, rather than a typical discourse analysis: "Grounded theory, which is sometimes described as breaking down and then putting together the data, analysis seems often to consist of progressively more abstract categorization vs. analysis in the sense used in discourse analysis" (Wood & Kroger, 2000, p. 29). In other words, grounded theory is not the use of data to support or reject a preformed hypothesis but rather the development of a theory from that collected qualitative data (Glaser & Strauss, 1967). To gain a general sense of any recurring patterns or themes potentially flagged as memorized, each segment was transcribed. Throughout the
transcription process, the researcher made brief notes of any repeating patterns. Once all segments were transcribed, the researcher again reviewed the segments and rater comments, noting particular words or phrases (i.e. unusually high-level vocabulary or text type, or patterns that recurred in other interviews).

To ensure the dependability of the primary researcher's conclusions, a separate spreadsheet listing every prompt, transcribed response, and rater comments of all 39 flagged interviews was given to a second reader who was instructed to read each item and note any noteworthy patterns distinguishing the spontaneous samples from the rehearsed. This reader was a graduate research assistant who was familiar with the ACTFL proficiency guidelines. After completing an independent analysis, the second reader met with the principal researcher to discuss their findings.

**Results**

**Quantitative**

To determine whether there was a significant difference between the MLU, SP, and AR of spontaneous versus rehearsed segments, a paired samples t-test was utilized to compare the sample means. There was no significant difference between the spontaneous and rehearsed segments in terms of mean length of utterance (MLU) (Table 4, Figure 2); or silent number of pauses (Table 4, Figure 3). There was, however, a significant difference between spontaneous and rehearsed segments in terms of articulation rate (Table 4, Figure 4). This is not surprising, as sentences which have been practiced prior to an interview would be expected to have faster delivery.
Table 4.

Statistics for Spontaneous and Rehearsed Segments

<table>
<thead>
<tr>
<th></th>
<th>Spontaneous</th>
<th></th>
<th>Rehearsed</th>
<th></th>
<th>n</th>
<th>t</th>
<th>df</th>
<th>p</th>
<th>Cohen’s</th>
</tr>
</thead>
<tbody>
<tr>
<td>ML</td>
<td>6.406</td>
<td>5.917</td>
<td>6.406</td>
<td>5.91</td>
<td>1.285</td>
<td>37</td>
<td>0.20</td>
<td>0.285</td>
<td></td>
</tr>
<tr>
<td>SP</td>
<td>0.372</td>
<td>0.091</td>
<td>0.372</td>
<td>0.091</td>
<td>-</td>
<td>37</td>
<td>0.45</td>
<td>-0.137</td>
<td></td>
</tr>
<tr>
<td>AR</td>
<td>3.280</td>
<td>0.555</td>
<td>3.280</td>
<td>0.555</td>
<td>-</td>
<td>38</td>
<td>0.00</td>
<td>-0.227</td>
<td></td>
</tr>
</tbody>
</table>

*p < .05

Figure 2. Spontaneous versus rehearsed segment observed average mean length of utterance (MLU).

Figure 3. Spontaneous versus rehearsed segment observed average mean number of silent pauses.

Figure 4. Spontaneous versus rehearsed segment observed average mean articulation rate.
According to the quantitative statistical analyses, articulation rate was the only significantly different fluency measure between the rehearsed and spontaneous segments. This was somewhat expected because it is understandable that material which has been practiced would come more naturally to the speaker. The MLU and number of silent pauses measures might not have proved significant because, even in the case of memorization, there may still be a fair amount of pausing and hesitation involved recalling that material. However, because only one of the temporal fluency feature comparisons yielded significant results, the quantitative analysis has not proven to be a particularly strong demonstrator of how the speech types differ. As is discussed in the limitations sections of this paper, this is likely due to the fact that several segments with characteristics of rehearsed speech were marked as off-topic, excluding them from the memorized samples and potentially making the results of the acoustic analysis less clear. Further analysis is also needed to determine if the articulation rates are significantly different due to rehearsal or other factors (e.g. topic, task type, speaker characteristics).

Qualitative

Within the same speaker, two trends were noticed: off-topic material, and recurring phrases and descriptions. Between speakers, recurring phrases were observed in addition to repeating organizational patterns, or response "templates." The reader's comments corroborated the author's observation of the two overarching trends mentioned above.

**Within-Speaker: Off-Topic Responses.** Through this transcription and analysis, researchers identified potential indicators as to why certain segments were marked as memorized. Some of these clues could be identified from within the single prompt response. An example of this is a response that has little or nothing to do with the question given; in other words, off-topic—a tag assigned to many interview tasks. The off-topic responses to tasks 5 and
6 in Table 5 could be due to the speaker's misunderstanding of the prompt: confusion of _walk_ for _work_ (this was noted in the rater comments). However, while task 14 asks about a healthy friend, the interviewee speaks only about the gym he attends—a vaguely related subject, but clearly off-task.

Table 5.

_Rehearsed Tasks of Interviewee 2_

<table>
<thead>
<tr>
<th>Task</th>
<th>Prompt Topic</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Walking location</td>
<td><em>I will talk about- I will talk about some household chores...</em></td>
</tr>
<tr>
<td>6</td>
<td>Walking routine</td>
<td><em>I will talk- I will- I will talk about my work...</em></td>
</tr>
<tr>
<td>14</td>
<td>A healthy friend</td>
<td><em>I will talk about gym I go to...</em></td>
</tr>
</tbody>
</table>

It is worth noting here that the accepted rhetorical strategy of one culture does not always easily transfer to another. Scholars have observed that although the communication style of Anglo-American educational traditions tends to be direct or linear (Wierzbicka, 2006; Eggington, 2015), Korean sociocultural norms call for rhetoric that is more relative to context (Goddard & Wierzbicka, 2007; Eggington, 2015). While native English writers favor direct, predictable rhetorical patterns in communication, Korean cultural scripts typically reject this assertive approach out of concern for imposing upon the reader's own interpretation of and assumptions from the text. Consequently, much of the Korean discourse which an American reader or listener may perceive as disorganized or circumlocutory does indeed have a focus located deeper within the text (Eggington, 2015). This is a valid cultural difference in rhetorical style. However, given that OPIc participants are aware of their limited response time, as well as the degree of tangentiality in the examples shown in this paper, the principal researcher is of the opinion that Korean rhetorical style does not have a significant influence upon the data at hand.
The final rehearsed task in this interview is markedly more off-topic and disorganized than the previous examples (Figure 5). The speaker refers only twice to an element of the given prompt: childhood. Throughout the response, he attempts to steer the topic toward his neighborhood, local park, and descriptions of those locations.

Figure 5. Full transcription of task 5 of Interviewee 2. The prompt asks about the speaker's childhood home and furniture.

Other responses are similarly off-topic. Interviewee 3 connects her response to the given prompt in what seems like an afterthought ("because of what had in [unintelligible] Beach"), and otherwise describes only a music festival and her reasons for attending it (Figure 6). It is suspected that the speaker prepared an experience to insert at some point in the interview.

Figure 6. Full transcription of task 6 of Interviewee 3. The prompt asks about typical beach activities.

Responses of Interviewee 4 to tasks 5 and 14 are also off-task (Table 6). In the first, numerous details are given about a trip (i.e. location, activities, and safety precautions) but no mention of the people with whom the vacation is spent, as the question specifically asks. Similarly, when asked to describe household responsibilities, the speaker gives a detailed description of a house but none of members or their duties. Task 5 and 14 responses are within
the general topic of vacations and the home, respectively; the task 11 response, however, is completely off-topic. The speaker talks about a broken car that has resulted in missing a meeting (nothing to do with an e-reader as the prompt mentions). It seems that the speaker recognizes the prompt for roleplay, but was unable to deliver one that fit the scenario provided.

Table 6.

Rehearsed Tasks of Interviewee 4

<table>
<thead>
<tr>
<th>Task</th>
<th>Prompt Topic</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Vacation companions</td>
<td>I like to drive through, uh, lakeside area called Changpyeong for my vacation. . . .Um, when I- when- I carry very little cash when I travel. It makes me feel much safer.</td>
</tr>
<tr>
<td>11</td>
<td>Role-play purchase of technological item</td>
<td>Hello, I need to talk to you about something. The problem is that- the problem is that I can't attendant the meeting today because my car is broken. Um, I'm really sorry, but can you please reschedule the meeting?....</td>
</tr>
<tr>
<td>14</td>
<td>Household responsibilities</td>
<td>Um, sorry, I lived third floor on apartment building in [unintelligible]. There are four room, two bathroom, and a living room. It's different size for my family. . . .In my free time, I watch TV or relax- relax in the living room. In my, uh, my- my- my room is study room. . . .</td>
</tr>
</tbody>
</table>

**Within-Speaker: Recurring Material.** In addition to segments flagged by raters for rehearsed material manifest in off-topic responses, a second pattern was recurring (often verbatim) phrases and descriptions. These were noted in several comments: "This is a canned response we hear over and over;" "Have heard this material before;" "After hearing RM [rehearsed material] in response to other prompts, you realize this is also totally memorized."

Remarks about repeating content formed six percent of rater comments overall.
The search for recurring patterns was widened to include segments marked as spontaneous to determine if the pattern continued. Interviewee 5 repeats most of the same response on two difference prompts by recombining memorized chunks of material. Responses are off- and on-topic for Tasks 6 and 14, respectively, but are strikingly similar in several ways (Table 7). Not only are many phrases repeated word-for-word, but the speaker's organization within both tasks, with the exception of some deviations in Task 14, is virtually identical.

Table 7.

Recurring Patterns Within Tasks 6 and 14 of Interviewee 5

<table>
<thead>
<tr>
<th>Prompt Topic</th>
<th>Response</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work training</td>
<td><em>Speaking my favorite sport, my favorite sport is basketball</em> . . . I like to play basketball with my family every Sunday. I usually play basketball in the park near my house because the park is very large and beautiful. Especially there is a very good basketball court in the park. I recently played. . .*</td>
<td>R</td>
</tr>
<tr>
<td>Jogging location</td>
<td><em>Speaking of my favorite sport, my favorite sport is jogging. I like to go jogging with my family every Sunday. I usually go jogging in the park near my house because the park is very large and beautiful. Especially there is a very good walkway in the park. So, I go there by bus. When I go there, I usually bring something to drink. When I recently went jogging. . .</em></td>
<td>S</td>
</tr>
</tbody>
</table>

Table 8 displays a very similar occurrence in Interviewee 6. As was Interviewee 5 in Tasks 6 and 14, she is off-task in Task 9, on-task in 14, but uses almost identical sentence structures in both responses. At the conclusion to Task 9, similarly to Interviewee 3, this speaker adds, "This is about my childhood" as if to convince the rater that her story is vaguely connected to the prompt. Neither task 9 nor task 14 was marked by a rater as rehearsed. This could be because the rater had not detected the material in previous tasks, or, since there was no place on
the rater form to explicitly mark rehearsed material, the listener opted to not include it in their comments.

Table 8.

Recurring Patterns Within Tasks 9 and 14 of Interviewee 6

<table>
<thead>
<tr>
<th>Prompt</th>
<th>Response</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe household responsibilities as a child</td>
<td>Um, I will talk about my childhood. Um, I went to the Busan with my family. Mm, it was very beautiful. Mm, I couldn't enjoy on the beach, uh, but I had good visit, too. Mm, there was very nice hotel in Busan. The hotel name was [unintelligible]. Mm, [unintelligible] was very large and clean. Um, the staff were very nice and kind. I like the [unintelligible] and I love the Busan, too. This is about my childhood. Thank you.</td>
<td>S</td>
</tr>
<tr>
<td>Describe a country visited</td>
<td>Um, I talk about my international trip. Mm, I went to the Hawaii with my friends. Mm, there's an ocean in Hawaii. Oh, sorry- there was an ocean in Hawaii. Uh, it- it was very beautiful. Mm, I couldn't enjoy on the beach. I had good visit, too. There is nice hotel in Hawaii. The hotel name was-</td>
<td>S</td>
</tr>
</tbody>
</table>

**Between-Speakers: Recurring Phrases.** In other cases, patterns emerge across multiple interviews. An example of this is seen in Task 14, an intermediate description prompt. Three interviewees were asked to describe three unique locations. Despite each prompt asking for three distinct places, the descriptions shared several characteristics (Table 9). It is worth noting that of these three very similar segments, only one was flagged as rehearsed.

Table 9.

Recurring Themes in Task 14 Responses of Interviewees 7, 8, and 9

<table>
<thead>
<tr>
<th>Prompt</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Describe where you go jogging.  
In the park, there are many trees. In the middle of park, uh, there's a- uh, uh, there's a- uh, uh, large [unintelligible]. Uh, from the [unintelligible] middle, there is a big running track. . . .

Describe the baseball field where you play.  
Um, it is surrounded with many flowers and trees. Um, in the middle, uh, there is a lake; around the lake, uh, walking- a walking track and a jogging track. . . . Uh, on the right, I can see, uh, soccer field. . . . On the left, many flowers and trees. . . .

Describe your language school  
It is located in- um, uh, middle part of language campus. . . . In the middle, I can see the lake. . . . On the right, I can see the cafeterias and cafes, trees, and flowers. Uh, on the left, they are dormitory buildings. . . .

**Between-Speakers: Reuse of Speaking Templates.** In addition to phrases, similar patterns of organization emerged across interviewees. Table 10 features the transcripts of three different interviewees, each of whom was asked to describe a memorable vacation. All three participants use not only similar sentence structure ("which is located," "it was for summer vacation," "on the first day," etc.), but the same sentence order: the name of destination, its location, summer vacation, and three days of activities.

Table 10.

**Recurring Themes in the Intermediate Description Task 9 and 5 Across Interviews**

<table>
<thead>
<tr>
<th>Task</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>I took a trip to Jeju Island, which is located in south of Korea. . . . I went there by air, it was my summer vacation. When I stayed there a week, I- I had- I had, um, many thing. On a first day, I- I climb up the- I climbed up the Halla Mountain, it took about five hours. . . . On the second of trip, I- I had to swimming. Uh, I wa- we- we were swimming, sunbathing, and sn- snorkeling and beach volleyball. And we ha- we had barbeque party at night. On the last day, we tried- we tried their local food, such as raw fish-</td>
</tr>
<tr>
<td>9</td>
<td>Last year I took a trip to Manila which is located in the Philippine. Uh, it is for my summer vacation. . . . I stayed there for one week. I enjoyed many things. On the first day, we visited famous place such as national museum. On the second day, we enjoy many summer sports, uh, and sunbathing. We had a barbeque</td>
</tr>
</tbody>
</table>
**party at night.** We drank all night. On the last day, we went shopping and bought some souvenir. **We try the local food. . . .**

5

Mm, um, last year I got a trip to Jeju Island, **which is located in** south of Korea. Uh, it was for summer vacation. Mm, so, I go there with my friends. Uh. We flew there by Korean Air, it took one hour. **We stayed, uh, for a week and enjoyed many things. Uh, first, we climb the, uh, Halla Mountain. Uh...**

One of the most striking patterns of memorization noted during transcription was the repeating story of encountering a long-lost friend. Table 11 shows three stories nearly identical in organization and content. All three of these responses were to task 10, which asks the speaker to describe an unexpected event that occurred while traveling.

Table 11.

**Responses from three different interviewees to Task 10 (all marked as rehearsed)**

---

Uh, last year I took a trip, uh, Manila which is located in the Philippine. Uh, uh, one day I went to Manila while- while I was working on the shopping mall. **I met my old friend** So Ra Kim. Suddenly I saw one person who looks like my friend. **At first I just ignored her.** A few seconds later, she called my name. **I was very surprised to see her there.** At first I was [unintelligible]. **Soon, we realized each other and were so glad to meet again.** We went to the bar for a casual drink. **We talk about our life and school.** I had a good chat- a good time. I had a good time. **We still keep in touch each other.**

---

Um, I, uh, last- last month, I went- I went the Europe with my best friend CheolSu. Uh, when I go there, fortunately, **I met a old friend**, YoungHee. **First- at first, I ignore her, because- uh, because- ah, no no, uh, at first, I ignore her.** Uh, few seconds later, **I and her- I and she- I and she are recognize each other. I was very surprise.** So- so, and sh- because she called my name, we- we- we have met- we have not met for twenty years- no, ten years. **So, very, very, very glad to meet again.** Uh, after- after- after traveling these place, we go to the bar to talk about life and school. **And we- we kee- we still keep in touch each other.** **Thank you.**

---

Wow, it is very interesting question, let me see. Uh, two years ago, I went there Tokyo with my family. At the time I was very surprised experience. Uh, **I was very surprised because I met my old friend SuRa Kim.** Um, before, we never met each other for five years . . . . **I- firstly, I ignored her, but she called my name. I really surprised to see her there.** We went shoppi- we shopping together, and after that,
I- oh, after that we went to the cafeteria for lunch. And then, we talked about our future and school. We had a good time.

Discussion

As mentioned earlier, statistical analyses showed that of the three selected fluency measures, only mean articulation rate differs significantly between the rehearsed and spontaneous segments. The qualitative analysis, in contrast, revealed far more about the nature of these rehearsed segments. Of the rehearsed segments which had been marked as rehearsed for off-topic material, several contained a polished enough response that they were assumed to be prepared. However, as the examples mentioned in this paper have shown, it is difficult to know what is off-topic because the speaker has intentionally made it so versus what is off-topic because the speaker has misunderstood the prompt.

Several raters also justified their conclusions by noting that the speaker used a higher text type than expected. Text type is defined by ACTFL (2012d) as "that which the learner is able to understand and produce in order to perform the functions of the level" (p. 8), such as words, questions, connectivity of sentences, and paragraph-length discourse. Text type that does not match what a speaker has produced in the remainder of an interview is a potential indicator of rehearsed material, and this was discussed by the principal researcher and second reader during the check for qualitative dependability.

However, agreement upon which segments demonstrated notably higher or lower text type than others within the interview is a challengingly subjective process. The most specific rater comments as to why a segment was marked as memorized involved the observation of recurring material; that is, the most striking evidence of memorization lay in recurring storylines given for the same task number/prompt across interviews (for example, encountering an old
friend). Among the Korean-produced OPIc prep videos investigated for this study (Lee, 2013; Hackers Education Group, 2014) several of the most-viewed presented templates very similar to what are heard in these interviews.

These prep videos included an overwhelming number of scenarios, specific vocabulary, expressions, and pronunciation tips (Lee, 2013). These resources would likely be more effective if they provided OPIc participants an idea of what speech forms to expect, but encouraged the practice of those forms in realistic and personalized contexts instead of providing a script. In other words, participants should be encouraged to improve their actual English proficiency instead of struggling to memorize prepared scripts which, when heard alongside several similar recitations in a testing group, are recognized by raters as rehearsed. One user even commented that test takers should be careful to not mirror the examples too closely, and that it was wise to insert one's own experiences, examples, and ideas (Hackers Education Group, 2014).

A limitation of this research lies in the selection of the three fluency measures (articulation rate as a measure of speed and MLU and number of silent pauses as a measure of breakdown) and how much these vary between speech in the L1 versus the L2. For example, evidence of this study suggests that memorized speech had a significantly higher articulation rate than spontaneous speech, but this evidence would be stronger had the articulation rates of spontaneous and rehearsed Korean speech also been calculated. De Jong et al. (2015) collected both L1 and L2 data which demonstrated that pausing behavior overlaps in both, as well as that the inverse articulation rates of both are more strongly correlated after taking into consideration L1 fluency behavior.

Another limitation is the validity of the tag words rehearsed, memorized, canned, practice, RM, and RMAT as indicators of memorization. It is possible that instead of marking a
segment as rehearsed using the above tags, a rater focused instead on to what degree the response was off-topic or off-task. Many of these flagged interviews that were included in the sample on the basis of having any of the six tag words above also included comments about off-topic or off-task material within it. Several other interviews may have displayed signs of rehearsed material but were only marked for being off-topic or off-task (and, consequently, were not considered in this study). This is a shortcoming that could be examined in future research.

A similar issue is the fact that rehearsed speech characteristics were found in segments which had not been flagged for memorization by original raters (segments that, for the purposes of this study, were referred to as spontaneous instead of rehearsed). Like the limitation described in the previous paragraph, it is possible that this resulted in memorized portions of interviews being excluded from the sample. This presents more of an issue within the quantitative analysis (since speech measure means were compared between the rehearsed and spontaneous segment groups) and less for the qualitative analysis, as both principal researcher and independent reader reviewed transcripts of all segments, not only those marked rehearsed.

**Conclusion**

From this analysis, it appears that many test takers are utilizing a strategy that may seem practical for a performance exam, but on a *proficiency* measure will yield disappointing results. Memorization is acknowledged in the introduction of this paper as a proven strategy for acquiring vocabulary or formulaic sequences and preparing for speeches or exams. What follows this concession, however, is a distinction between performance and proficiency assessment--and why a person cannot be considered proficient beyond whatever level in which they can use language spontaneously: “An individual cannot ‘cram’ for a proficiency test. . .

According to the research on second language acquisition, several hundred hours...meaningfully
engaged in honing and using language skills, are required to progress to the next highest sublevel or major level” (ACTFL, 2004).

However, as other employers have discovered, it is possible that the English actually needed at this company is not what the OPIc tests: "Our current [language] models...emphasize aspects of language that seem salient to us but may not be the ones that serve people well in the complex acts of communication that they engage in" (Elder, McNamara, Kim, Pill, & Sato, 2017, p. 20). Many participants of this study aimed for an IH rating, but their use of rehearsed material and consequent lack of spontaneous speech landed them a score of IM or even IL. Could this be because the level of English proficiency actually needed for their job is not as high as the one set by their employers?

If this is the case, it raises additional questions: Do companies require an intermediate level of English proficiency to perform their job functions? Do they need their employees to communicate well in English to remain competitive in a globalizing economy? Or, is English proficiency being used as a proxy measure for some other factor such as socioeconomic status? Increasing the standard of English proficiency adds yet another element of rigor to hiring and promotion that perhaps is not enforced for the sake of international communication alone.

Employers, policymakers, and trainers such as those leading OPIc prep courses ought to consider not only what a proficiency interview aims to measure, but also a reasonable standard of English proficiency for their institution's purposes.
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