Nonverbal Communication across Eastern-Western Cultures: Facial Expressions during Interviews of Japanese Students

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Abstract:

Background: Effective educational evaluations involve interviews, observations and nonverbal cue interpretations. Educators carry out these evaluative activities everyday as instructors, advisors or administrators, often relying on nothing but their intuition. These evaluations inform the future decisions. One must determine if students really agree with an idea or mean what they say. Literature shows facial communication to be the richest source of meanings and the best way to get to the truth. However, cross-cultural setting can present unique challenges due to the impact of Eastern and Western differences in values regarding interdependence vs. autonomy, collectivity vs. individualism, hierarchical authority vs. egalitarianism, high-context vs. low-context communication, and open expressions vs. controlled affects.

Aims: The Interview Observation Checklist of Facial Expressions was constructed in this study as an aid to observing a recorded interview of Japanese students. It aimed at accurate interpretation of the students’ feedback.

Method: Qualitative observations formed the bases for the pilot instrument. It was refined through frequency analysis as well as subjective observations in a trial run.

Subjects: The project involved all the students in the 2005 Bilingualism and Biculturalism course taught by this writer. Section one in Japan, a group of nine students participated in the pilot study as cultural peers of interviewees. Section 2 in the U.S., a group six students participated in the trial study of the checklist.

Conclusion: Two types of facial communications emerged, subject’s affects and subject’s postures. The former reveals the emotional tone of the messages while the latter indicates how seriously the messages should be weighed. Further, a bi-directionality was discovered in facial communication: expressions directed towards the inquirer or to the peers. These two-by-two structure is reflected on the final version of the instrument.

Keywords: Facial Expressions, Facial Communication, Nonverbal communication, Student Interviews
Introduction

Background

Guba and Lincoln dedicated a whole chapter to “Interviewing, Observation, and Nonverbal Cue Interpretation” in their well-known volume, *Effective Evaluation* (1981). These authors tried to infuse the excitement of what was new in qualitative evaluation and useful for naturalistic inquiries. They were aware that thoughts and feelings were often quite different from those that were stated. Nonverbal communication they felt was the best indicator of the truths. They painstakingly explained the burgeoning new concepts such as chronemics, use of time in communication; haptics, communicative elements of touch; kinesics, communication through body movement; para-linguistics, extra-verbal elements of speech; proxemics, communication through spatial relations; and synchrony, communication involving rhythmical relationship.

According to Guba and Lincoln, (1981) unsophisticated communicators were often unaware of the nonverbal communications they sent or received. Sophisticated communicators were often aware of what s/he sent and received. Interviewer, if sensitive to nonverbal cues, could infer certain nuances about participants:

Subject-inquirer relationship
Subject-other subjects relationship
Subject’s own feelings about himself/herself

Edward Hall (1959, 1963, 1966, & 1967) is often recognized for elevating nonverbal research to a respectable status. He came to an understanding that the nonverbal cues could override the verbal messages in 1959. In the opening statement of his now classic volume, the Silent Language, Hall (1959) described this new awareness after a series of interviews. “If one were to believe the words of these officials, it seemed that all of them were more than willing to adopt non-discriminatory labor practices. Yet I felt that, despite what they said, in only one case was there much chance for a change.” His conclusion was based on how his interviewees manipulated the appointment time (chronemics).

This writer came to a realization that words alone were so insufficient to reveal the precise meanings, after reviewing the video recording of a group exit interview with a cohort of Japanese students. All the expressions which originally escaped this writer’s attention or retention clearly came to the foreground to reveal various nuances. The students’ faces offered a wealth of nonverbal cues that showed their concerns for peer reactions and for the relationship with this writer as the inquirer and the faculty. The interviewees’ faces revealed their moment by moment evaluations of the context and their responses. Indeed, much more truths seemed to be buried in the nonverbal side of the whole interview waiting to be uncovered.

A search for a ready-to-use template or checklist for facial expression observation became the first task. Unfortunately, the search turned up nothing. One may expect a flourish of nonverbal studies following the Guba and Lincoln’s appeal (1981). But there was no evidence of any subsequent nonverbal applications. It was clear that a new instrument, though rudimentary, needed to be devised.
Objectives

The current project aimed initially to review literature to gather pertinent research results that may facilitate the nonverbal communication interpretation of college student interviews. Since the students in this particular program were from Japan, the influences of Asian cultures were investigated as well.

The project’s ultimate goal was to formulate a lay-person friendly systematic checklist/template for analyzing the nonverbal cues. This project took facial expressions as the primary contributors of nonverbal meaning. As Mehrabian (1982) has ranked it to be the best source of feeling and attitudinal information. In fact, he contrasted the relative contributions of verbal communication as 7 percent and facial cues as 55 percent.

Literature Review

Divergent Past

As mentioned above, educational evaluators have shown little interest in nonverbal investigation. However, the field of psychology and anthropology continue to develop fruitful research. Apparently, anthropologists and psychologists have pursued separate paths over the decades. Anthropologists' interest has always been cross-cultural decoding of meanings using a more holistic ethnographic approach and believing that facial expressions of affects are culture specific behaviors.

Psychologists had taken interests in the communicator’s internal state in terms of emotions. Much of the psychological research involved observations of subjects' reactions to the stimuli that are intended to trigger emotions rather than observations of natural or spontaneous occurrences of emotions. During the last decade, psychology research began to rely more on invasive physiological measures. Their approach has become increasingly technical in pursuit of the most finite discriminations of facial musculature with the aid of computers. Thus, the analyses of face especially as a way to determine truths or lies became almost an exclusive realm of psychology. Automatic face recognition has become the new branch of nonverbal studies. It fueled the aspiration for more accurate microanalysis of facial expressions than human eyes can detect or the mind can process. This group of researchers is currently concentrating on automatizing the Ekman’s (1978) manual procedure called FACS (Facial Action Coding Systems.)

Most psychologists believe that human emotions and their expressions are biological though not necessarily genetic. They hold certain fundamental emotions such as surprise, fear, disgust, anger, happiness, joy, and sadness to be universal. The neuromuscular actions are considered to be consistent across all ethnic groups around the world. Because of this belief, almost all references to cultures have been made in an effort to demonstrate how similarly various ethnic groups encode and decode emotions (Ekman, et al., 1987; Ekman & Friesen, 1974; Ekman Heider, 1978).

Possibility of Convergence

Among the psychologists, there has been some re-evaluation of the nativist - universalist assumptions. Questions have been raised about facial expressions being a finite set of minute features and consistent set of universal
meanings. Call for more functional analyses of communication rooted in social contexts has been voiced. When the psychologist Russell and his colleagues chose the cultural context as the primary influence on facial emotion, an ultimate nature-nurture debate became inevitable.

In 1994, the debate among Ekman, Izard and Russell became formal and official once the American Psychological Association decided to host the written exchanges. When all was said and done, the catalytic effects of the debate were seen in the repositioning of the three major researchers on the continuum between the absolute biological bases and the absolute cultural determination. Ekman was confronted to admit a greater role of display rules. Izard set out to test his differential emotion theory with infants as their facial expressions developed in socialization. Russell was faced with the challenge of formulating the cultural influences on facial behaviors.

*Exploration of Cultural Influence*  
*Closer Look at the Operatives That Explain Asian Studies*

Given that the purpose of the current study is to investigate the literature in order to find or formulate the best model to apply in interpreting an interview with Japanese students, a further exploration of the specific body of literature dealing with Asian cultures and language seems profitable. Often these studies define the formalized dimensions operative in Asian groups to explain the deviations from Caucasian American studies.

Matsumoto and Ekman in 1989 revisited their earlier results based on the observations they made about American-Japanese differences:

- Japanese rated the intensity lower than Americans in almost all emotions.
- Japanese masked the expressions of emotions especially anger and happiness.

These findings led to the conclusion that the judgment of emotion can vary in intensity ratings from culture to culture. Authors speculated that Japanese display rule attenuated the judgment of emotions partly due to uncertainty or politeness. Another hypothesis was that the translated words may have inherently different intensities.

Another concern of Matsumoto et al. (2002) was the low agreement levels of recognition found among Japanese subjects when low-intensity emotions were presented. The authors sought to "unpack" the results with the specific psychological dimensions that may explain the differences between the cultures. Among the dimensions considered were:

- Collectivism which affected how openly feelings were expressed or how much "reading into" others’ expressions were necessary when the display rules minimized the expressions.
- Status differentiation which related to power distance, uncertainty, avoidance, masculinity, tightness and contextualization.

These two dimensions were measured and found to explain most of the observed differences suggesting the need to incorporate contexts into studies. Mesquita, B. et al. (2004) investigated the American-Japanese differences using their “cultural lens” (dimension) of:
- Self emphasis/autonomy versus interdependence.

The first of the two experiments used both high and low intensity expressions of happiness and anger predicting the Japanese responses to be diverse because of the attempts to read the contexts that are not available. The second experiment added four background faces in addition to the target face again predicting the Japanese responses to be more diverse because of the attention paid to the background faces. The results supported both predictions.

Similar studies done with Chinese subjects also offered some insight. Chan (1985) studied the recognition of facial emotions with Chinese subjects using Izard's (1980) photos and discovered two dimensions operative:

- Controlled styles of expressions as opposed to open style
- Aversion toward negative emotions as opposed to positive emotions

He also found that two emotions, interest-excitement and disgust-revulsion, were often not recognized by the Chinese subjects, but the other seven, enjoyment-joy, surprise-startle, distress-anguish, anger-rage, contempt-scorn, fear-terror, and shame/shyness-humiliation showed high consensus.

Huang et al. (2001) used Matsumoto and Ekman's (1989) Japanese and Caucasian Facial Expression of Emotion (JACFEE) photos depicting six emotions plus contempt with 237 Chinese students at Peking University. The original results of Matsumoto and Ekman indicated that Japanese had inconsistent responses to negative emotions. When the Peking results were added to the Matsumoto and Ekman's, the findings further supported:

- Difficulty in judging negative emotions such as fear, anger, and sadness.

Tsai, J., Chentsova-Dutton, Y., & Freire-Bebeau, L. (2002) studied the facial expressions while the Hmong American and European American subjects relived the past episodes of intense happiness, pride, love, anger, disgust, and sadness. Two groups were expected to give dissimilar responses based on an anthropological prediction:

- Asians were less expressive.

According to a self-report inventory of emotion, FACS, cardiovascular, electro-dermal and respiratory measurements, more similarities than differences were found. The most significant difference was in the expression of happiness which Hmong Americans more frequently showed with non-Duchenne or social smiles than European Americans.

These studies offered two core operatives or hypotheses to explain the findings about muted Asian expressions of strong positive emotions such as happiness and excitement and negative ones which were further masked.

1. Display rule that attenuates emotions, politeness or non-equivalent emotion words
2. Custom of controlled styles of expressions especially with negative emotions.

Likewise, two cultural values were offered to explain the difficulty or inconsistency found in when judging extremely strong negative emotions such
as fear, anger, and disgust.

1. Highly interdependent and hierarchical relationships that require deferral to others
2. High-context communication that require much “reading into” others

Closer Look at the Emotions Specific to Asian Cultures and Languages

A linguist, Wierzbicka (1992) cynically pointed out how conveniently the emotions always fit English words in many studies. There are culture specific emotions that reportedly cannot be translated into English, at least not as one-word equivalents. Because individuals interpret the emotions of own and others based on their personal theories of emotion, these instances of unique meta-emotions are significant.

Japanese “amae” is one of the most well-known examples of affects that defies translation. The concept of amae was first introduced in 1955 by L. Takeo Doi, at the convention of American Psychiatric Association. Doi (1992) reflected on that occasion and how the meaning of amae was introduced. Root word of amae is amai which means sweet. He said it was the child’s feeling of attachment and longing for parents except this same feeling of dependence, expectation of acceptance or leniency and intimacy applies to adults’ interpersonal relationships as well. He thought the closest English word was “being spoiled” yet without any bad connotations. Western researchers have been attempting to use this framework in their research contexts ever since (Behrens, K. Y., 2004.)

Often the equivalent translation does not reveal the difference in social connotations. Ha, F. I. (1995) looked at the difference in shame responses of Caucasian Americans and Asian Americans. In semantic differential scale, Caucasians rate shame as a significantly more low, weak, and dull affect than Chinese or Japanese Americans. The author studied the verbal and nonverbal behaviors of bilingual Korean American students. The interview which was video-taped included questions about their dating behaviors to elicit embarrassment. The subjects were found to use three ways to manage their embarrassment. They were mitigation (verbal), code switching (nonverbal), and laughter (nonverbal).

Schmidt-Atzert, & Park, H.S. (1999) studied two Korean words of sadness, dapdaphada and uulhada with some Korean subjects living in Germany and native German subjects. Since these words have no German equivalents, scenarios expressing these emotions were presented. The subjects responded by selecting pictures and verbal labels. Korean subjects’ verbal responses were highly consistent in identifying the dapdaphada and uulhada scenarios as intended. Germans primarily used helplessness for dapdaphada and depression or loneliness for uulhada.

These studies of uniquely Asian emotions caution us to recognize when the Western conceptualizations or labels are inadequate in Asian studies. Minimizing and ignoring these differences can result in poor research design. These studies demonstrated that there are underlying dimensions which are rooted in cultural values that often explain the behaviors that are otherwise puzzling.

Instrument Construction

The intent of this project was to draft a check list or template of descriptors in
whichever format that is most useful for nonverbal observation of a video recorded interview. Literature seemed to support ethnographic approach as the most feasible method for this project. Initial descriptors seemed best to be generated from an in-group of observers who share the knowledge of Japanese culture. However, the usefulness of the instrument needed to be tested with a non-Japanese group.

**Subjects**

The college students in the 2005 Bilingualism and Biculturalism course taught by this writer were identified as the perfect subjects. Section one of the course comprised of nine students in Japan participated in the pilot study as cultural peers of interviewees. Section two comprised of six American speech-language pathology students in the U.S. participated in the trial study of the checklist. Student participation in nonverbal research as co-investigators has many previous instances (Napieralski, Charles, and Droney, 1995 and Ostermeier 1994, and 1997). The intended benefit for the students in the Bilingualism and Biculturalism course was to provide an experiential learning opportunity to meet one of the course objectives, to evaluate and develop his/her own competence in cross-cultural communication.

**Preparation of the Subjects**

Preparatory sessions were planned for both the Japanese and American sections based on the recommendations of Klinzing (2003) who reported that the combination of lectures and nonverbal interpretation testing as well as an opportunity to discuss the test answers with peers increased the students’ sensitivity to nonverbal cues.

1. Lectures were given on such topics as contribution of nonverbal cues in communication, types of nonverbal cues, and research findings.

2. Nonverbal cue recognition test was given using a video test called The Interpersonal Perception Task (IPT -15) produced by Costanzo and Archer (1993). This testing has been a part of the course each year but this was the first time the students shared and discussed the answers. It was noted that the mean score for the Japanese section was 9.5 out of 15 and the American section was 9.25. Although small group sizes limit the interpretation of these mean scores, they were relatively higher than the previous groups.

3. Explanation was given regarding the benefit of a checklist and the benefit for the participants.

**Procedures for the Pilot Study**

1. The Japanese students were shown the video recorded interview of the cohort who was one year ahead of them. The sound track was turned off so as not to distract them with verbal communication which was in the language they could understand.

2. Students were given the transcript in Japanese. The transcript was printed on the left half of the pages and darkened to show only the speaker names, interviewer’s questions and comments so that the observers could follow the turn taking. It was segmented and numbered to further facilitate the observation.

3. On the right half of the pages, the Japanese students were asked to describe with their own words the nonverbal behaviors they saw.
in each numbered segment. This free labeling method was used to take advantage of their in-group or dialectal intuition.

**Procedures for Trial Study**

1. American students were shown the same interview video tape with audio portion turned off to focus on facial expressions and not on paralinguistic cues.
2. Students were given the translated texts arranged and darkened the same way that done for the Japanese group. The difference was that they had a list of descriptors printed in each segment. They were asked to circle descriptors as well as to write their own descriptors in the lined spaces.
3. In the second part of the exercise, the students were given clearly legible transcript so that they can integrate the nonverbal observations they made with the verbal messages.

**Treatment of Data**

The data which in this case is a list of descriptors were fist analyzed qualitatively. Qualitative process meant that the end product or the eventual format could not be predetermined. It was expected that the instrument might require further fine tuning or reorganization beyond the one trial application planned for this project.

1. The data treatment began with the translation of the verbal communications.
2. Between the pilot and the trial studies, the descriptions collected from the Japanese students were also translated and back translated. There were no unique untranslatable descriptors. The collection was then analyzed thematically and tentatively grouped according to the similarities of functions. As the categories emerged they were organized and given names to be used in the trial study.
3. The trial study data were also quantitatively analyzed to determine the pattern of response frequency. Then the categorization was redefined to improve the usefulness. The revised check list is also shown.

**Categorized Trial List of Descriptors**

**AFFECTIVE STATE**

- calm and composed vs. animated,
- positive, open, friendly, relaxed vs. nervous, sincere, serious,
- moved/touched, sad, regretful, shy about self disclosure, hiding own feelings

**SELF BELIEF**

- actively trying to influence others, confident of his/her ability to convince others, eager to convey the message, truthful, matter-of-factly, lack or loss of confidence, unsure of him/herself

**POSTURE**

- firm and strong, clearly held opinion, argumentative, disagreeing, mphatic, appealing (making an appeal)

**PEER/AUDIENCE PERUSING**

- seeking others’ agreement and consensus, seeking confirmation of understanding from others, checking comprehension, checking for faculty interviewer approval, withdrawing and isolating from the peers

**Revised List of Descriptors**
In order to receive some input for revision, American students were asked to comment on the helpfulness of the descriptors. Most of them thought the list was helpful in reducing the amount of thinking or brainstorming time. For some, the process of elimination caused distraction. One student commented that the list limited her attempt to create her own descriptors. It is crucial for the list to contain enough appropriate options. However, making the list easy to scan remains to be a challenge. The only contributions from the written descriptors that may merit some consideration were “quite comfortable,” and “reaffirming with nodding.” Many of the descriptors written in by the American students were finer shading of the items already listed e.g. more confident than previous, a bit nervous, quite relaxed, a little timid, etc.

Integrating of the verbal and nonverbal cues produced several self-directions:

- Give more weight to this comment. Nonverbal was emphatic.
- Read deeper/investigate this issue. Nonverbal indicated seriousness and shyness.
- Amplify these comments. Nonverbal showed eagerness to convey the idea.
- Consider this statement accurate. The speaker was firm and confident.

Frequency analysis of the data showed some discernable patterns. Certain descriptors were selected by four or five out of the six students in a given segment. These consistent patterns confirmed that a list of descriptors can produce high agreements.

The idea for revising the list came out of the struggle to identify and classify the Peer/Audience Perusing category which initially appeared to be a misfit. But it was obvious that the interviewees were constantly evaluating their relationships with the interviewer and the peers. Peer/Audience Perusing not only made sense but fit well into the framework once the writer recalled Guba and Lincoln (1981) insight described above and repeated here below.

Subject-inquirer relationship
Subject-other subjects relationship
Subject’s own feelings about himself/herself

**The Result**

The pattern that emerged was a two-by-two framework: two types and two directions.

1. Two types of expressions: subject’s affects and subject’s posture or stance.
   - Affect expressions revealed the emotional tone which some times betrayed or truly validated the spoken statements.
   - Posture expressions helped the observers determine how to weight the comments or if more meanings needed to be read between the lines.

2. Two directions of messages: concerns shown toward the interviewer or peers.

The following checklist on the next page was produced as a result of this project.
## Interview Observation Checklist of Facial Expressions

Circle applicable items in the first column & check the middle &/or right column(s) to show to whom the affects or postures are related or directed.

<table>
<thead>
<tr>
<th>Facial Expression</th>
<th>In relation to inquirer</th>
<th>In relation to Others/Peers</th>
<th>Interpretation Application Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subject's affects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive</td>
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<tr>
<td>Friendly, open</td>
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<tr>
<td>Sincere, truthful</td>
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<td>Serious</td>
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<td>Moved/touched</td>
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<td>Relaxed/comfortable</td>
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<td>Calm</td>
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<td>Nervous</td>
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<td>Shy</td>
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<tr>
<td>Sad/regretful</td>
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<tr>
<td>Others*</td>
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<tr>
<td><strong>Subject's posture</strong></td>
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<tr>
<td>Firm, strong, emphatic</td>
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<tr>
<td>Animated</td>
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<tr>
<td>Affirming</td>
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<tr>
<td>Eager to convey/convince</td>
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<tr>
<td>Seeking agreement/approval</td>
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<tr>
<td>Checking comprehension</td>
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<tr>
<td>Making an appeal</td>
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<tr>
<td>Lacking confidence</td>
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<tr>
<td>Hiding feelings &amp; withdrawing</td>
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<tr>
<td>Argumentative</td>
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<tr>
<td>Disagreeable</td>
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</table>

*It is possible that certain interview topics can evoke strong emotions necessitating additional affective terms. Surprise, fear, disgust, anger, happiness, distress-anguish, contempt-scorn, shame are believed to be universal (Ekman P., 1994).
Discussion

The results supported the efficacy of a qualitative approach to creating a preliminary checklist and the efficacy of the checklist itself in providing guided facial expressions observation and a means to increasing the awareness of nonverbal cues. The portion of the study confirmed the usefulness of the checklist in cross-cultural application. Until comparisons are made with other settings, the utility of this checklist is limited to the context in which it was studied comprising observations of video-recorded, group interviews of Japanese students. In addition, the trial with a group of all female observers may have realized an unintended gender bias.

The most interesting discovery of this study was the two-by-two framework. As it usually is in the case with qualitative research, hindsight such as this can be gleaned only by systematic rounds of categorizations of the data. The distinction between the affects and posture of facial expressions became apparent in earlier analyses. The affects seemed to be the leakage, as psychologists call the inadvertent expressions of the communicator’s feeling toward the topic, inquirer or the peers. Postures seemed a more orchestrated sequence of nonverbal cues for the communicator to show his/her stance on the topic, toward the inquirer or peers. When the direction of the nonverbal messages whether vertically toward the inquirer versus laterally toward peers, emerged as a significant distinction, it afforded the two types of expressions above more meaningful and integrated ways to interpret.

Another remarkable finding was that the checklist produced a high level of agreement in the trial study where four out of five observers often selected the same descriptors for a given segment. This indicated the adequate and yet manageable variety of descriptors supplied in the checklist. It implicitly supported the efficacy of the two-by-two organization as well.

This study provided some answers as well as other questions for future investigation. One question in particular is about the suggestive power of the checklist which was intended to guide and assist the observers. The students in the trial run were asked to suggest their own descriptors and later to comment on the usefulness of the checklist. Students’ responses in these two tasks indicated a possible stifling effect of the list on their creativity.

Various descriptors were generated by the observers in the trial study. The only descriptors that may merit consideration for future adoption were “quite comfortable,” and “reaffirming with nodding.” Other descriptors written in by the American students were mostly shades of the existing items on the list such as, “more confident than previous”, “a bit nervous”, “quite relaxed”, “a little timid”, etc. The fact that the observers generated mostly related descriptors may mean either the list offered what they needed or acted as a limiting influence. One student commented that the list kept her from creating her own descriptors. Other responses to the question of the usefulness of the list included “reduced the amount of brainstorming time” or “forced sorting of all the descriptors.” An alternative study design in which American observers come up with their own descriptors without any checklist from their cultural peers may be able to determine if in fact the checklist produced a negative effect.
REFERENCES


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