When conveying a message may hurt the relationship: Cultural differences in the difficulty of using an answering machine

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Abstract

Cultures differ in their emphasis on the two core functions of communication, conveying information and maintaining the relationship. Because answering machines primarily serve the former function, their use may show cultural differences. Leaving a message is cognitively more taxing for Japanese than Americans, as indicated by poorer performance on a secondary task (Study 1). This performance decrement reflects that Japanese allocated more cognitive resources to tailoring the message to the recipient, consistent with their culture’s higher emphasis on relationship goals. Such cross-cultural differences were not restricted to the laboratory situation. Although equally likely to own an answering machine, Japanese reported a higher rate of hanging up when reaching an answering machine than Americans (Study 2). The difficulties that Japanese experience when leaving a message on an answering machine are partly due to the lack of feedback channel. Theoretical implications are discussed.

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Have you ever made a large request over an answering machine? Did you worry about how the recipient of your message would feel and react? And did you suddenly find yourself being cut off by the time limit of the answering machine? If you are Japanese, this may sound more familiar to you than if you are American. The present studies address this possibility. In all cultures, communication serves informational as well as social-relational functions. However, interdependent cultures put more emphasis on the relational function of communication than independent cultures (Scollon & Scollon, 1994, 1995). This is likely to impose higher attentional demands on interdependent communicators, in particular in situations that lack the feedback channels crucial to monitoring the other’s responses. Leaving a message on an answering machine is a common exemplar of such communication situations and we expect, and find, that interdependent communicators find the use of answering machines more demanding than independent communicators.

Culture and communication practices

How people relate to each other is culture dependent (Fiske, Kitayama, Markus, & Nisbett, 1998; Markus & Kitayama, 1991; Triandis, 1989). Members of independent cultures view themselves as bounded entities mainly defined by their internal attributes, whereas members of interdependent cultures view themselves as dependent on the relationship between self and others (Markus & Kitayama, 1991). Persons with an independent self-construal are assumed to be motivated to express themselves, whereas persons with an interdependent self-construal are assumed to be motivated to enhance their relatedness to others. These different social orientations are reflected in different communication practices (Becker, 1986; Kim, 1993, 1994; Kim & Wilson, 1994). For example, Scollon and Scollon (1994, 1995) suggested that there are two key functions to communication: one is to convey the information, and the
other is to maintain the relationship through the act of communication. While both are relevant in all cultures, American culture places more emphasis on the informational function of communication, whereas Japanese culture places more emphasis on its relational function. In addition, Kim and her colleagues (Kim, 1993, 1994; Kim et al., 1996; Kim, Sharkey, & Singelis, 1994; Kim & Wilson, 1994) suggested that whereas people with independent self-construals tend to place more emphasis on outcome-oriented aspects of the communication, such as clarity and effectiveness, people with interdependent self-construals tend to place more emphasis on other-oriented aspects of the communication, such as avoiding hurting the hearer’s feelings and minimizing imposition. Furthermore, Japanese attention to the relational function is reflected not only in communication practices but also in language use, in particular the use of honorifics (e.g., Ide, 1982). Japanese speakers have to attend to the hierarchy and intimacy between the interlocutors to decide, for example, which verb to use when they describe the interlocutors’ behavior.

Empirical findings are consistent with the high emphasis on relational aspects in Japan. Kitayama and Ishii (2002) used a modified Stroop task in which the emotional tone and the meaning of the word had either negative or positive valence. Whereas the emotional tone of the spoken word interfered more with Japanese participants’ performance, Americans’ performance was more disrupted by the meaning of the spoken word. If Japanese listeners place emphasis on maintaining the relationship, they may constantly provide feedback to the speaker to indicate their attentiveness to the relationship. In support of this conjecture, White (1989) observed that backchannels (i.e., listener responses, such as “uh-huh” and “yeah”) are displayed more frequently by Japanese than by American listeners.

In addition, Holtgraves and Yang (1992) and Ambady, Koo, Lee, and Rosenthal (1996) observed that Americans adjust the politeness of their response to the content of the message, whereas Koreans adjust the politeness of their response to the relationship. For example, Koreans’ politeness strategies were influenced by the relationship with the receiver of the message (e.g., boss, peer or subordinate), whereas Americans’ politeness strategies were influenced by the content of the message (e.g., whether it was good or bad news; Ambady et al., 1996).

Cultural differences in answering machine communication

These conjectures and findings suggest cultural differences in the use of answering machines. Answering machines are communication devices that deprive the speaker of backchannel responses from the recipient of the message, thus making it difficult to monitor the relational aspects of the communication (Kogo, 1993). To compensate for the lack of backchannels, speakers may need to allocate attentional resources to mentally simulate the recipient’s likely responses, resulting in a more complex task (for a review see, Krauss & Chiu, 1998). Given cultural differences in the emphasis on the relational function of communication, Japanese speakers may therefore find it more taxing to leave an important message on an answering machine than American speakers.

Study 1 tests this possibility in a dual-task paradigm and assesses if leaving a message on an answering machine interferes more with Japanese than Americans’ performance on a concurrent secondary task. If so, we may further expect that Japanese speakers are more likely to avoid the use of answering machines in daily life. Study 2 tests this prediction and further examines the factors that make it difficult for Japanese to leave a message on an answering machine.

Study 1

For the reasons discussed above, we predict that leaving a message on an answering machine presents a more demanding cognitive task for Japanese than for American speakers. While all speakers need to attend to conveying the intended message, Japanese speakers may need to allocate more attention to the relational aspects of the communicative act than American speakers. If so, leaving a message on an answering machine should interfere more with the performance of Japanese than of American speakers on a concurrent task.

To test this hypothesis, we asked Japanese and American participants to leave a message on an answering machine while working on a concentration test. We compared their test performance while leaving a message to a baseline measurement, thus controlling for possible cultural differences in task performance. The key hypothesis holds that leaving a message results in a more pronounced performance drop for Japanese than for American speakers, relative to baseline.

To obtain direct evidence for cultural differences in participants’ attention to their relationship with the recipient, we asked participants to call either a professor or a peer and coded the content of each message. According to Brown and Levinson’s (1987) politeness theory, speakers who pose a request to others can use several politeness strategies, which serve to protect face. One of them is to emphasize the closeness between the speaker and the hearer (positive politeness) and another is to minimize the perceived imposition on the hearer (negative politeness). Based on Holtgraves and Yang’s (1992) findings, we hypothesized that Japanese become more positively polite when they call their peer but more negatively polite when they call their professor. In either case, they need to spend cognitive resources on tailoring the message to the recipient.

Method

Respondents

Participants were 36 American undergraduates (16 male and 20 female) from the University of Michigan and 41 Japanese undergraduates (20 male and 21 female) from
KYOTO UNIVERSITY. THEY PARTICIPATED IN THE EXPERIMENT FOR PARTIAL CLASS CREDIT.

PROCEDURE

PARTICIPANTS PARTICIPATED INDIVIDUALLY. THEY WERE TOLD THAT THE STUDY WAS ABOUT TELECOMMUNICATION STYLE, AND THAT THE EXPERIMENT ADDRESSED HOW WELL PEOPLE COULD COMMUNICATE WHILE ENGAGING IN A DUAL TASK.

PARTICIPANTS FIRST WORKED ON A CONCENTRATION TEST (THE D2-TASK, DESCRIBED BELOW) TO PROVIDE A BASELINE MEASUREMENT. NEXT, THEY WERE GIVEN THE SCENARIO SHOWN IN APPENDIX A AND INSTRUCTED TO IMAGINE THAT THEY WERE IN THE DESCRIBED SITUATION. AFTER READING THE SCENARIO AND JUST BEFORE PLACING THE CALL, PARTICIPANTS WERE GIVEN THE FOLLOWING PASSAGE:

JUST BEFORE YOU PLACE YOUR CALL, YOU REMEMBER THAT YOUR PROFESSOR (CLASSMATE) IS NOT AT THE LAB TODAY. THEREFORE, YOU REALIZE THAT YOU ARE ABOUT TO CALL YOUR CLASSMATE (PROFESSOR).

BEFORE YOU MAKE YOUR CALL, PLEASE TAKE A MOMENT TO IMAGINE THE CLASSMATE (PROFESSOR) YOU ARE ABOUT TO CALL. WHEN YOU SEE YOUR CLASSMATE (PROFESSOR) CLEARLY BEFORE YOUR MIND’S EYE, PLACE YOUR CALL.

HALF OF THE PARTICIPANTS WERE INSTRUCTED TO CALL THEIR CLASSMATE, AND THE OTHER HALF WERE INSTRUCTED TO CALL THEIR PROFESSOR. THIS INFORMATION WAS PROVIDED AFTER THE SCENARIO TO PREVENT PARTICIPANTS FROM READING THE SCENARIO DIFFERENTIALLY CAREFULLY DEPENDING ON WHETHER THEY WERE TO CALL THEIR CLASSMATE OR PROFESSOR.

THEN, PARTICIPANTS PUT ON A HEADSET AND SAT IN FRONT OF THE COMPUTER. AFTER THEY DIALED THE NUMBER, THEY STARTED TO WORK ON THE D2-TASK ON THE COMPUTER WHILE TALKING ON THE PHONE THROUGH THE HEADSET. ALL CALLS WERE CONNECTED TO AN ANSWERING MACHINE. BOTH THEIR MESSAGE AND THEIR PERFORMANCE ON THE D2-TASK WERE RECORDED. FINALLY, PARTICIPANTS RATED THE CLOSENESS OF THEIR RELATIONSHIP WITH THE OTHER PERSON (0 = EXTREMELY DISTANT TO 6 = EXTREMELY CLOSE) AND THE RELATIVE POWER OF THE OTHER PERSON (0 = MUCH LESS POWER THAN YOU TO 6 = MUCH MORE POWER THAN YOU).

ALL INSTRUCTIONS AND STIMULI WERE TRANSLATED INTO JAPANESE BY A JAPANESE BILINGUAL AND THEN BACK-TRANSLATED BY ANOTHER JAPANESE BILINGUAL INTO ENGLISH. THE ORIGINAL ENGLISH INSTRUCTION AND THE BACK-TRANSLATED VERSION WERE COMPARED, AND WEENSURED THERE WERE NO SUBSTANTIAL DISCREPANCIES BETWEEN THEM.

THE CONCENTRATION TEST: D2

THE D2-TEST IS A STANDARDIZED TEST FOR MEASURING SELECTIVE ATTENTION AND MENTAL CONCENTRATION (BRICKENKAMP & ZILLMER, 1998). IT PRESENTS THE LETTERS D OR P WITH ONE, TWO, THREE, OR FOUR DASHES ON THE COMPUTER SCREEN, ONE AT A TIME. RESPONDENTS ARE TO PRESS THE D-KEY FOR EVERY LETTER D OR FOUR DASHES ON THE COMPUTER SCREEN, ONE AT A TIME.

BASED ON POLITESSITY THEORY (BROWN & LEVINSON, 1987), EACH MESSAGE WAS CODED FOR ITS POSITIVE, AND NEGATIVE POLITESSITY ON 7-RATING RATING SCALES (0 = NOT AT ALL TO 6 = VERY MUCH). POSITIVE POLITESSITY WAS DEFINED AS PHRASES OR SENTENCES THAT IMPLIED CLOSNESS OR ATTEMPTED TO BRING ABOUT CLOSNESS (E.G., SMALL TALK, JOKES, INFORMAL GREETINGS, AND OFFERS OR PROMISES TO RECIPROCATE); NEGATIVE POLITESSITY WAS DEFINED AS PHRASES OR SENTENCES THAT INDICATE THE REQUESTER’S AWARENESS OF THE IMPOSITION OR ATTEMPTS TO MINIMIZE THE IMPOSITION (E.G., ASKING FOR FORGIVENESS, INDICATING RELUCTANCE, AND GIVING REASONS FOR THE REQUEST). CODERS WERE FAMILIARIZED WITH THE CONCEPTS OF POLITESSITY THEORY, AND INSTRUCTED TO TAKE ALL COMPONENTS OF THE MESSAGE INTO ACCOUNT WHEN MAKING JUDGMENTS.

TWO BILINGUAL CODERS, ONE JAPANESE AND ONE AMERICAN, WERE TRAINED. ONE BILINGUAL CODER WAS A JAPANESE MALE, WHO WAS Brought UP IN AN AMERICAN SCHOOL IN JAPAN AND HAD A COLLEGE DEGREE FROM A US UNIVERSITY, AND THE OTHER BILINGUAL CODER WAS A JAPANESE FEMALE, WHO HAD STUDIED AT A US UNIVERSITY FOR THREE YEARS. THESE TWO BILINGUAL CODERS CODED THE AMERICAN AND JAPANESE MESSAGES, WHILE TWO NONBILINGUAL CODERS CODED MESSAGES GENERATED IN THEIR RESPECTIVE COUNTRY. OVERALL, THREE CODERS RATED AMERICAN MESSAGES, AND THREE CODERS RATED JAPANESE MESSAGES. THE CODERS WERE FIRST TRAINED IN THE CODING PROCEDURE BY CODING PRETEST MESSAGES. THE CODERS THEN CODED THE MESSAGES INDEPENDENTLY.

RESULTS

MANIPULATION CHECK

PARTICIPANTS PERCEIVED THEIR PROFESSOR TO HAVE MARGINALLY MORE POWER OVER THEM (M = 4.50) THAN THEIR PEER (M = 4.02), F(1, 69) = 2.95, p < .10. THERE WERE NO CULTURAL DIFFERENCES IN THESE PERCEPTIONS. THE RELATIVELY SMALL DIFFERENCE PRESUMABLY REFLECTS THAT BOTH THE PROFESSOR AND THE PEER HAD CONTROL OVER PARTICIPANTS’ OUTCOMES IN THIS SCENARIO. IN ADDITION, JAPANESE PERCEIVED THE RELATIONSHIP TO BE MARGINALLY CLOSER (M = 4.51) THAN AMERICANS DID (M = 4.11), F(1, 69) = 2.88, p < .10, INDEPENDENT OF THE RECEIVER’S STATUS.

PERFORMANCE

CORRECTNESS OF THE MESSAGE. PARTICIPANTS HAD TO CONvey SIX POINTS (MARKED IN THE SCENARIO, SEE APPENDIX A). EACH POINT WAS CODED AS CORRECTLY CONVEYED (VALUE OF 2), MENTIONED BUT NOT CORRECTLY CONVEYED (1), OR NOT MENTIONED AT ALL (0). AS EXPECTED, BOTH JAPANESE (M = 10.07 OUT OF 12 POSSIBLE POINTS) AND AMERICANS (M = 9.58) CONVEYED THE MESSAGES CORRECTLY TO THE SAME DEGREE, F(1, 69) = 2.32, N.S.
**d2-performance**. The baseline measurement showed no cultural difference in the accuracy of participants’ responses, $F<1$, but an unexpected main effect of culture on response time: Japanese participants responded faster than Americans, $F(1,69)=3.90$, $p<.06$. To control for this difference, participants’ speed during baseline performance was used as a covariate in the analysis of d2-performance.

As expected, leaving a message on an answering machine did differentially affect the performance of Japanese and American participants. As shown in Table 1, Japanese took longer to respond ($M=928\text{ms}$) than Americans did ($M=869\text{ms}$), $F(1,68)=7.89$, $p<.01$, partial $\eta^2=.10$. Moreover, Japanese were marginally less accurate ($M=.71$) than Americans were ($M=.77$), $F(1,68)=2.98$, $p<.09$, partial $\eta^2=.04$. Thus, even though Japanese participants took more time, they still made more errors—an observation that contrasts sharply with their faster speed, and equally good performance, at baseline. This supports our hypothesis that making a request on an answering machine is a more demanding task for Japanese than Americans, presumably because Japanese need to allocate more attention to the relational aspects of the communicative act. If so, we should find that Japanese speakers are more likely to tailor their message to the recipient than American speakers. Next we address this issue.

### Evidence for message tailoring

**Politeness.** The overall inter-rater reliability ($z$ coefficient) for the coding of politeness was .86 for Japanese messages and .71 for American ones. The means of the three coder’s ratings were used as the measures of negative and positive politeness.

As expected, we obtained a significant triple-interaction of politeness type, power, and culture, $F(1,69)=5.77$, $p<.05$, partial $\eta^2=.08$, shown in Fig. 1. Decomposition of this interaction shows that Japanese as well as American participants expressed more positive politeness when they called their peer rather than their professor, $F(1,69)=26.89$, $p<.0005$, partial $\eta^2=.28$, for the simple effect of power. Conversely, they expressed more negative politeness when they called their professor rather than their peer, $F(1,69)=39.34$, $p<.0005$, partial $\eta^2=.36$, for the simple effect of power. More important, this adjustment of politeness strategies was more pronounced for Japanese, $F(1,37)=41.95$, $p<.0005$, partial $\eta^2=.53$, than for Americans, $F(1,32)=12.14$, $p<.005$, partial $\eta^2=.28$, for the simple interactions of politeness type and power within the respective culture. This difference in message tailoring is consistent with the assumption that Japanese participants needed to spend more cognitive resources on tailoring the message than American recipients, resulting in the observed differences in d2-performance.

**Number of reasons given.** In addition, speakers may spontaneously add reasons to legitimate their request when they care about the feelings of the receiver. In fact, when making specific requests (“Look up the address on the website” and “Send them by Fedex”), Japanese participants justified their request with more reasons ($M=1.29$) than did American participants ($M=.75$), $F(1,69)=11.29$, $p<.001$. Typical reasons given were, “Because I don’t know the address” or “Because I need them by the day after tomorrow.”

**The number of “ahs”**. Moreover, if leaving a message is a more difficult task for Japanese, we may expect more pauses which need to be filled with utterances like “ah.” Indeed, Japanese messages included more “ahs” ($M=7.34$) than American messages ($M=3.97$), $F(1,69)=13.24$, $p<.001$.

**Length of message.** Additional efforts to justify one’s requests may lead Japanese to use more words and spend more time on the message. We found in fact that, in general, Japanese left longer messages ($M=48.44\text{s}$) than did Americans ($M=37.83\text{s}$), $F(1,69)=13.65$, $p<.001$. Moreover, message length was significantly correlated with the amount of message tailoring, $r=.29$, $p<.05$, calculated by subtracting the amount of positive politeness from negative politeness in the professor condition and by subtracting the amount of negative politeness from positive politeness in the peer condition.

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**Table 1**

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<th></th>
<th>Americans</th>
<th>Japanese</th>
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<tr>
<td><strong>Response time (ms)</strong></td>
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<tr>
<td>Baseline performance</td>
<td>642</td>
<td>605</td>
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<tr>
<td>Actual performance</td>
<td>869</td>
<td>928</td>
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<tr>
<td><strong>Accuracy rate</strong></td>
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<tr>
<td>Baseline performance</td>
<td>.92</td>
<td>.93</td>
<td>n.s.</td>
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<tr>
<td>Actual performance</td>
<td>.77</td>
<td>.71</td>
<td>+</td>
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(+) $p<.10$; (**) $p<.01$. Significance tests of the actual performance control for baseline performance.

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**Fig. 1. Ratings of negative and positive politeness by culture and power.**

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Mediation analysis

If the observed cultural differences in the drop of concurrent d2-performance are due to Japanese participants’ higher attention to relational aspects of the communication, message characteristics should relate to d2-performance. Empirically, this is the case. Using message length as a global indicator of message tailoring, the data indicate that accuracy on the d2 decreased, \( r = -.38, p < .005 \), and reaction time increased, \( r = .28, p < .05 \), with message length. Thus, those who spent more time on tailoring their messages showed lower performance on the d2-task. More important, mediation analyses (shown in Fig. 2) indicate that the observed cultural difference in d2-performance is significantly mediated by message length, Sobel test = 1.97, \( p < .05 \) (Sobel, 1982), as expected on theoretical grounds.

Discussion

In sum, we used a dual-task paradigm to assess whether leaving a message on an answering machine is a more demanding task for Japanese than for American speakers. We found that Japanese and Americans were equally likely to correctly convey the content of a relatively complex message. Doing so, however, interfered more with Japanese than with American participants’ performance on a concurrent concentration test. This presumably reflects that Japanese participants needed to allocate more attention to the relational aspects of the communicative act than American participants, consistent with the communicative practices of their culture (Scollon & Scollon, 1994, 1995). Supporting this interpretation, Japanese participants showed more pronounced message tailoring than American participants by adjusting the form of politeness to the type of relationship. In addition, Japanese participants added more legitimizing explanations to their request and their messages contained more pause fillers, consistent with the assumption that formulating their messages required more attention. These differences resulted in a pronounced difference in message length, with Japanese speakers leaving longer messages than American speakers. Finally, using message length as a global indicator of message tailoring, we found that message length significantly mediated the observed cultural difference in participants’ performance on the concurrent concentration test.

These experimental data suggest that the messages left on answering machines in Japan may often be longer than the messages left on answering machines in the United States. If so, we may expect that Japanese answering machines are designed to accommodate longer messages. To explore this possibility, we compared answering machines manufactured in Japan and the United States and found that answering machines made by Japanese companies offered a longer time limit for each incoming message than those made by American companies.¹ This observation suggests that the cultural difference in message length, observed under laboratory conditions in Study 1, is sufficiently common to have entered the design of answering machines in the respective countries.

Study 2

The findings of Study 1 suggest that leaving a message on an answering machine presents a more demanding task for Japanese than for American callers. If this observation extends to daily life, Japanese may be more likely than Americans to avoid the use of answering machines. To address this possibility, we conducted an Internet survey. We asked respondents if they owned an answering machine, how often they use it, and how often they hang up when they reach answering machines. In addition, we

¹ We analyzed reviews of answering machines manufactured by Japanese (Sony, Casio, Panasonic, and Uniden) and American (AT&T, Radio Shack, Bell South, Southwestern, and GE) companies (Consumer Reports, 1999, 2000). One American answering machine was excluded from the analysis because it did not set a time limit for individual incoming messages, apart from total recording capacity. This resulted in a total of 7 Japanese and 10 American answering machines available for analysis. The time limit for each message served as the dependent variable and the total recording time, which may reflect the capacity of the machine, as a covariate. As expected, answering machines made by Japanese companies offered a longer time limit for each incoming message (\( M = 4.22 \) min) than those made by American companies (\( M = 2.52 \) min), \( F(1,14) = 10.54, p < .01 \).
explored which aspects of using an answering machine may make it difficult for Japanese to leave a message. To do so, we asked respondents to report in an open-response format what they disliked most about answering machines.

Method

Respondents

American undergraduates at the University of Michigan, randomly chosen from the student directory, and Japanese undergraduates at Kyoto University, registered for the psychological subject pool, received e-mail asking them to participate in an international survey on telecommunication style. Those who agreed to participate accessed the website and completed the survey. Two to four months later, all students received a second e-mail asking those who did not fill out the survey to do so. The response rates were 17.80% (47/264; 22 males, 23 females, 2 unspecified) for the American and 29.12% (53/182; 11 males, 42 females) for the Japanese sample. Although not representative, these samples represent comparable groups of undergraduates at large selective universities.

Questionnaire

To compare the use of answering machines across culture, we asked respondents (i) whether they owned an answering machine, (ii) if they did, how often they used it during a typical week, and (iii) how often they hang up when they reach an answering machine. Finally, respondents were asked to report what they dislike most about answering machines, in an open-response format.

Procedure

Respondents filled out the survey on the website. They were told that they might skip any questions that they did not want to answer. It took about 5 min to complete the survey.

Results and discussion

A majority of the Japanese (86.79%) as well as American (88.64%) students owned answering machines, $\chi^2 (1) = .08$, n.s. However, American owners of an answering machine reported that it was more often turned on ($M = 5.90$ days a week) than did Japanese owners ($M = 2.30$ days a week), $F(1,84)=23.05$, $p < .001$. Most strikingly, Americans reported hanging up about half of the time they reached an answering machine ($M = 51.15$ out of 100 calls), whereas Japanese reported hanging up more than four out of five times when reaching answering machines ($M = 85.74$ out of 100 calls), $F(1,98) = 54.17$, $p < .001$.

Respondents also reported what they dislike most about answering machines. Each response was coded for whether the reason pertained (i) to informational (e.g., “people sometimes don’t check it” or “I cannot be sure whether the message was conveyed to the person.”) or (ii) relational aspects (e.g., “It is hard to sound personal on the answering machine” or “It is hard to speak because there are no responses.”). Thirty-eight Americans and 45 Japanese who responded to this question were included in this analysis.

A logistic regression was performed with culture as a between-subject variable and type of communication function (informational vs. relational) as a within-subject variable. As shown in Fig. 3, 31.58% of the Americans listed informational aspects as disadvantages of answering machine, whereas only 17.78% of the Japanese did so. Conversely, 57.78% of the Japanese listed relational aspects as a disadvantage, whereas only 36.84% of the American respondents did so. A planned contrast corresponding to the interaction of culture and informational versus relational function confirmed the reliability of this pattern, $Wald = 6.50$, $df = 1$, $p < .05$.

Further analysis of the relationship related answers showed that 22.20% of the Japanese mentioned the lack of a feedback channel as a disadvantage (e.g., “I cannot tell the reaction of the receiver.”), whereas none of the American respondents did. The examples of other relational disadvantages listed by participants were that communication tends to be one-directional (11.11% of Japanese and none of Americans), and that answering machines are impersonal (8.89% of Japanese and 21.05% of Americans).

General discussion

In combination, our studies indicate that Japanese find it more difficult than Americans to leave a message on an answering machine. Although all speakers need to attend to the informational as well as social-relational aspects of communicating, Japanese cultural practices put a stronger emphasis on the relational aspects than American cultural practices (Scollon & Scollon, 1994, 1995). Accordingly, our Japanese participants cited the lack of verbal and nonver-
backchannel responses as a major disadvantage of answering machines, whereas none of the American participants mentioned this aspect (Study 2). To compensate for the lack of backchannels, Japanese speakers may need to allocate cognitive resources to simulate the recipient’s likely reaction (for a review see, Krauss & Fussell, 1996). As a result, leaving a message on an answering machine is a more taxing task for Japanese speakers, as reflected in our Japanese participants’ poorer performance on a concurrent concentration test (Study 1). It is therefore not surprising that Japanese callers use their answering machines less often, and are more likely to hang up when they reach one, than American callers (Study 2). When our Japanese participants left a message under laboratory conditions, they were more sensitive to the nature of the relationship as reflected in more pronounced message tailoring (Study 1). This tailoring took more time and resulted in longer messages. Mediational analyses showed that tailoring, as indexed by message length, mediated the cultural difference in participants’ performance on the concurrent concentration test (Study 1). Finally, answering machines produced in Japan accommodate these longer messages by providing more time per message, suggesting that the observed difference is not limited to our laboratory study. Throughout, these observations are consistent with the assumption that, although communication requires attention to informational as well as relational aspects in all cultures, American culture places more emphasis on the former, whereas Japanese culture places more emphasis on the latter.

Our interpretation traces the decline of Japanese participants’ concurrent task performance to the cognitive demands of tailoring the message to the recipient. On the other hand, Kim (2002) observed impaired performance of Asian Americans on an anagram task when they had to report their thinking process out loud, whereas the performance of European Americans was not affected. This finding is sometimes assumed to indicate that any form of speaking out loud is more demanding for Asians, perhaps because of higher habitual attention to the social context. If so, Japanese participants’ performance impairment in Study 1 may not be limited to answering machine communication. Alternatively, Kim’s (2002) finding may be limited to performance situations where speaking out loud can provide insight into a possibly faulty reasoning process, giving rise to evaluation apprehension.

Addressing the conceptual alignment between communicators, Pickering and Garrod (2004) recently suggested that dialogue communication is qualitatively different from monologue communication. According to their analysis, conceptual alignment between partners can be achieved automatically, without requiring much cognitive effort, in dialogues, but not in monologues. Our findings suggest that the same may hold for relational alignment. When speakers are deprived of the backchannels available in personal communication, alignment requires simulation of the recipient’s likely response, disrupting what may otherwise be a largely automatic process. Future research may fruitfully address this possibility by exploring the impact of relational alignment on secondary task performance under monologue and dialogue conditions.

In closing, it is worth noting that our research also suggests a possible source of cross-cultural misunderstandings. Our findings indicate that Japanese speakers find a lack of backchannel feedback from the recipient more disturbing than American speakers do. Unfortunately, they may encounter this lack of feedback even in face-to-face communication with Americans, because American listeners generally provide less feedback than Japanese listeners (White, 1989). Hence, Japanese may sometimes find speaking to Americans akin to talking to an answering machine, resulting in strained conversations that are, in part, due to differences in communication practices rather than a lack of language proficiency. Future research may fruitfully address this possibility.

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Appendix A. Scenario used in the Study 1

Please think of the most respected professor from whom you are taking a class this semester and a classmate of your own gender.

Imagine that you are an undergraduate student working with this professor on a thesis paper. Your research turned out well and you are invited to present your study at a conference in San Francisco. You are now at the airport and about to take the plane. Then, you suddenly notice that you do not know the address of the conference center, you have to ask the person to search for its address on the conference website. You are going to present on the day after tomorrow, so those charts have to be sent as soon as possible by Fedex. In addition, if you reach an answering machine, you also have to ask the person to call you back at the Holiday Inn Hotel to confirm that your message was received.

To summarize, the things you have to convey to the person are,

1. 1. the charts are on your office desk,
   2. 2. send it to “San Francisco International Conference Center,”
   3. 3. search for its address on the Conference website,
   4. 4. it should reach you by the day after tomorrow,
   5. 5. it should be sent by Fedex,
   6. 6. if you reach an answering machine, also tell the recipient to call you back at the Holiday Inn Hotel to confirm that your message was received.
Do not look back at this scenario when you place your call. If you reach an answering machine, please leave a message on it within 45 s.

References


