SUMMARY

- Investigates how individuals from different cultures perceive questioning and pausing/interrupting behavior
- Demonstrates that culture can affect how different individuals perceive and interpret the same situation

Mutual Intercultural Perception: How Does It Affect Technical Communication?

Some Data from China, the Netherlands, Germany, France, and Italy

JAN M. ULIJN AND KIRK ST.AMANT

INTRODUCTION

To date, technical communication has been strongly related to written forms of communication. However, articles in past issues of *Technical communication* have revealed that oral modes of communicating technological, scientific, and business information (including technical presentations and business negotiations) have increasingly become an essential part of professional technical communication practices. Moreover, the importance of oral communication is not a uniquely American professional development, for several relatively recent publications indicate that it has also become an important aspect of international business and communication practices (see Barclay and others 1991; Sullivan 1991; Carliner 1992; Gilbert 1992; Kohl and others 1993; Leonard 1993; Boiarski and others 1995; and Southard and Reaves 1995).

The question then becomes "What happens when individuals from different cultures attempt to share or to exchange ideas?" In many cases, different cultural expectations and practices can affect the way in which individuals from different cultures both present and interpret spoken or written information. Thus, if professional communicators wish to achieve effective intercultural communication, they first need to understand how these cultural factors can affect professional interactions if effective intercultural communication is to be achieved. This article attempts to provide insight into these cultural communication factors by presenting the results of an experiment involving how individuals from China, the Netherlands, Germany, France, and Italy perceived a videotaped example of intercultural business negotiations. By comparing cultural perceptions of the same event, the researchers hoped to better understand how culture affects the way individuals from different international backgrounds perceive the same professional communication situations.

LITERATURE REVIEW

Previous researchers and theorists have addressed important questions relevant to this study.

- How important is negotiation as part of the international technical communication process?
- What exactly does *culture* mean, and how does it affect communication?
- How do cultural negotiation practices affect communication?
- How important are questions and silence in negotiation?

Understanding the importance of negotiation in technical communication

How important is negotiation as part of the international technical communication process? According to one survey conducted by Southard and Reaves (1995), many profes-

Manuscript received 15 August 1998; revised 27 September 1999; accepted 18 October 1999.

sional technical communicators believe that technical communication programs should require students to learn negotiation skills first and then focus on teaching students how to write (for a summary of other studies making the same point, see Ulijn and Strother 1995, chapter 2). The survey results also revealed that when ranking skills essential to the profession, technical communicators placed interpersonal communications skills—including negotiation and teamwork skills—after clear and concise writing skills, but before computer technology, editing, organization, presentation, and critical thinking skills.

From an international perspective, well-developed negotiating skills allow professional technical communicators to become increasingly involved in the global strategic management of their companies. (For more information on this topic, see the recent special issue of *Technical communication* on strategic planning [August 1997].) Surveys about the ideal profile of an international manager (quoted by Merk 1994) also confirm the importance of negotiation skills, with 40% of the business executives interviewed reporting such skills to be of key importance.

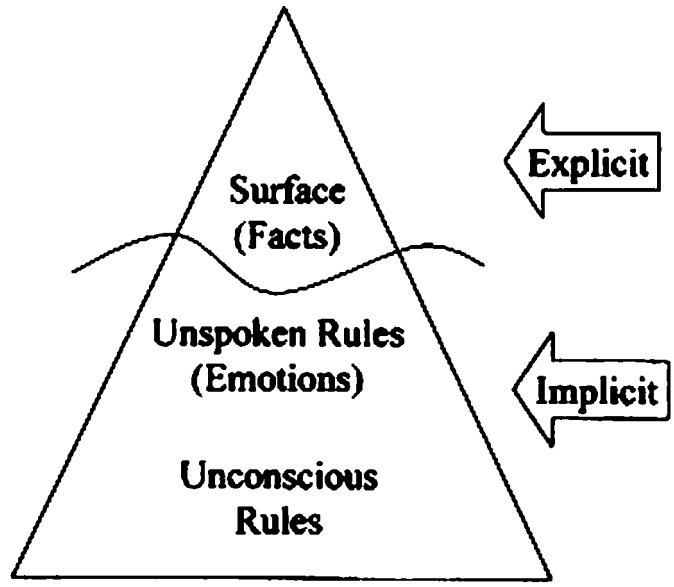

Figure 1. What is culture? The iceberg model.

Understanding how culture affects communication

Using both writing and negotiation to communicate effectively with international clients requires a certain level of cultural sensitivity, but to establish the appropriate level of cultural sensitivity, one must first determine exactly what *culture* means. Ulijn and Kumar (1999) discuss this definition problem and conclude that Hofstede's definition (1980) combined with the iceberg model (see Figure 1) might work to define national culture as opposed to other sources of cultural variation (for example, business, profession, sector, gender, age, ethnicity, and so forth) and do so without ignoring the overlaps of these factors.

Those sources of variation lead to a collective programming of the human mind, a programming that distinguishes one group from another in terms of norms, values, and attitudes. In this case, such programming relates to one's national identity. The concept of national identity, however, raises the problems of determining what a *nation* is and how *national identity* is related to cultural identity. For example, should Belgium be considered one nation with two distinct ethnic groups (Dutch and French), or as two cultural nations united by a similar socio-political system and an agreed on national border? Such cases need to be addressed before one can accurately discuss how *culture* can affect *international* relations. Perhaps one of the best solutions to this problem is to use the iceberg model to establish an understanding of the aspects we use to define *culture*.

The iceberg model (see Figure 1) developed by French and Bell in 1979 and later adapted by Mytrof and Kilman in 1985 attempts to reduce culture to a bare minimum profile or sketch comprised of two primary parts:

1. A visible top that represents the facts, the technology, the price, the rationale behind things, the brain (and hands of an engineer?), the written contract of a negotiation in an explicit way

2. An invisible bottom of emotions, the human relation, the unspoken and unconscious rules of behavior in an implicit way

By presenting culture in terms of two interrelated parts (one readily known and the other hidden), the iceberg model helps communicators understand the complexities of culture. It is this new understanding that helps communicators avoid thinking of *culture* exclusively in superficial terms.

In contrast to the iceberg model of culture, Hofstede (1980 and 1991) and Bond and Hofstede (1989) undertook an impressive survey project involving principally IBM employees from more than 40 nations. Instead of saying that culture is comprised of two parts (obvious, or explicit, and hidden, or implicit), Hofstede identifies five characteristics, or *dimensions:*

- Power distance (the degree and kind of contact between superiors and subordinates)
- Individualism (the importance of the individual compared with the importance of the group)
- Masculinity/femininity (egocentric/altruistic—thinking in terms of oneself versus thinking in terms of others)

- Uncertainty avoidance (how comfortable individuals are with the new and the unknown)
- Confucian dynamism (the notion of relationships over time—short term versus long term)

Hofstede believes that these five dimensions can help us understand the different aspects and subtleties of various human cultures. Yet even a study as comprehensive as Hofstede's cannot solve the problem of truly identifying all the nuances that together create cultural perceptions. More specifically, Hofstede's five dimensions do not automatically lead to conclusions about how cultural groups perceive each other and how they communicate in an intercultural communication situation.

The anthropological work done by Hall (1959, 1976, and 1998) and the linguistic work of Kaplan (1966) (see Ulijn 1995, and Ulijn and Kumar 1999) have more direct implications for communication and language in an intercultural context. This research suggests that, in a general global picture, Northern and Western (Germanic) countries would be low context, explicit cultures that use direct, linear discourse when communicating and that Southern (Latin) and Eastern (Asian) cultures would be high context, implicit cultures that prefer indirect, digressive/circular communication patterns. An explicit message would imply an overall importance of visible and controllable facts (technology, price, law, and written rules), concepts that are less subject to changing external conditions, whereas the implicit message would be network- and relation-oriented, and therefore sensitive to external conditions.

For example, a Japanese (implicit culture) business letter dealing with price negotiations might first begin with an "unrelated" paragraph in which the writer compliments the reader on the success of the reader's company, and then proceed to a discussion of the business facts (Driskill 1996, and Murdick 1999). This introductory paragraph often relates the implicit or underlying purpose of the letter, which is to recognize the achievements of the reader's company in an attempt to establish a long-term business relationship with that company. This implicit written communication strategy is a cultural communication factor related to the bottom, unseen part of the iceberg. The later, explicit discussion of the business facts, however, relates to the direct or explicit, short-term purpose of the letter, which is to clarify a particular business interaction, and this direct or obvious communication strategy relates to the top, clearly visible part of the iceberg.

Note that most American (explicit culture) business letters would focus only on the direct purpose of the letter (the explicit factors or top of the iceberg), and the American businessperson would probably find the implicit rhetorical strategies used by many Japanese communicators irrelevant to what Americans consider the purpose of the letter (to discuss the actual, immediate business conditions). In this way, cultural uses of implicit and explicit information presentation strategies can have an impact on intercultural business interactions.

Figure 2. The optical illusion "The Young Girl—Old Woman" (Attneave 1971) provides a classic example of how individuals can draw different interpretations from the same evidence. In this case, the young woman's chin is also the old woman's nose.

Perhaps unexpectedly, and not withstanding the upcoming venue of Internet communication, the Germanic need for explicitness often results in a lot of time spent checking the facts. As a result of this fact-checking behavior, information flows slowly in Germanic cultures. The Latin and Asian implicit network habits, however, make a fast (oral) information flow possible. With such cultural communication differences at work in our world, the question becomes "What steps can professional communicators take to ensure that the message they send is correctly interpreted, understood, and accepted by their international clients and audiences?"

The first and perhaps most important step toward successful intercultural communication involves *appropriate audience perception.* The optical illusion "The Young Girl—Old Woman" provides a classic example of how

individuals can draw different meanings from the same situation (see Figure 2).

Some individuals perceive the image to be that of an ugly old woman with a long nose, while others instead see the profile of a beautiful young woman whose head is turned slightly away from the viewer, her neck exposed. If individuals who saw the "Old Woman" image attempted to discuss the picture with persons who saw the "Young Girl" image, confusion would result, for while both parties were looking at the same picture, each perceived a different image. These different perceptions of the same image would result in each speaker wondering why the other wished to discuss a totally unrelated image. Such confusion could easily lead to frustration and misgivings as each party tried to understand why the other person wished to discuss a completely unrelated image.

In relation to this exercise, the Johari window model of perception and communication (Jourard 1964) suggests that if both communication partners see the same thing, they can discuss them, but they still have their individual blind spots (an inability to "see" a particular item) and might even unconsciously share blind spots. Such factors can become sources for misperception and often result from intercultural differences that could explain how individuals from different cultures can have strikingly different perceptions of the same event. In Dutch-French business interactions, for example, Dutch negotiators often perceive their French counterparts differently depending on the Dutch person's success in a business interaction with that French counterpart. If a business meeting between the Dutch and the French is profitable, the Dutch negotiator will often attribute this success to the following factors:

1. The negotiation issue—43.6%
2. The Dutch negotiator (him- or herself)—31.8%
3. The cultural background of the partners—24.6%

(Hendriks 1991)

However, should negotiations fail, the Dutch often attribute this failure primarily to culture (45.5%), with the other factors involved being seen as almost equal in the effects they had on the negotiation process (29.2% compared with 25.0%) (Hendriks 1991). Similarly, as Darley and Cooper (1998) have noted, in social interactions, the concept of *attribution* as characterized by Edward Jones also plays a role.

Understanding cultural negotiation practices

Dealing with conflicts is perhaps the most difficult skill related to international business encounters. In a survey of hierarchy of competencies in the ideal Euro-manager profile, cited by Merk (1994), 69% of those surveyed cited dealing with conflict as the chief problem in such situations. Moreover, written communication is not an island in a sea of oral business communication, for it often makes

Figure 3. An example of intercultural (mis)perception: On the left, how we see the Far East—diffuse, high context (moving from general to specific), implicit. On the right, how they see us—specific, low context (moving from specific to general), explicit.

conflicts more explicit. In business negotiations, national culture seems to relate to profit and can serve as a scapegoat for a lack of success. An American technical document that fails in Japan or in China could be attributed to the original American technical writer's inaccurate perception of those cultural audiences (see Etz 1992; Mirshafiei 1994; Ulijn 1996; Ulijn and Kumar 1999).

What is the cause of such misperception or erroneous attribution? One key aspect could be that high context cultures, such as many Asian cultures, tend to perceive the directness (straight line and explicit getting to the point) used by many low context, Western cultures as a mode of drifting away from the interaction's basic purpose (building long-term relationships between the two parties).

For example, many Japanese businesspeople might believe that the goal of an initial business meeting is to build relationships with their new business contacts; thus, the primary focus of the business meeting is to build a relationship and not to discuss business issues. Most Americans, however, might believe that the purpose of a business meeting is to get directly to the point and discuss business issues. These cultural differences in goals can cause problems as the Japanese try to figure out why the Americans wish to spend so much time deviating from the primary goal of the meeting (establishing relations) and to instead talk about secondary issues—business issues.

Conversely, individuals from low context cultures (mainly Western cultures) tend to view the high context (Asian) rhetorical style of circling/speaking around the topic of the conversation as out of focus and beating around the bush (see Figure 3).

As a result of such cultural differences, the negotiation strategies that are effective in one culture might not prove as successful in another. This article provides an overview of an experiment that examined how various cultural communication practices and perceptions affected the way in which individuals from different cultures perceived the same negotiation process.

Understanding the importance of questions and silence in negotiation

Part I: Questions The strategic use of questions has long been considered a key strategy in general business management. Asking "just the right questions" can help reduce uncertainty, and if properly answered in different settings, such questions can provide information that can be used to stimulate business leadership (Pagen and Selden 1994). As Robert Focazio, Regional President at AT&T (now Lucent) once phrased it, "If you improve your questions by 10%, you improve your productivity by 20%—and that's being conservative" (Dascalu and others 1998). Similarly, questions have certain strategic benefits: they demand answers, stimulate thinking, provide information, put you in control, show that you care, and encourage people to talk (Dascalu and others 1998). As listening seems to be central to intercultural negotiation success, understanding how questions can be used to prompt members of different cultures to speak or to listen is crucial to successful intercultural negotiations.

Graham (1993) used a series of Kelley games—mock business negotiation situations—in which participants from 10 different cultures enacted the roles of sellers or buyers who were negotiating the price of three technical commodities (laser printers, computer monitors, and software). The game was played over and over again with different individuals from different cultures in different roles, and through these games, Graham learned that questions are one of the most important components of successful negotiation activities. Moreover, he discovered that, when negotiating, individuals from certain cultures tended to ask more questions than did individuals from other cultures. For example, Russian negotiators appeared to ask twice as many questions as Germans did (27 compared with 11), and Northern/Mainland Chinese seemed to ask more than twice as many questions than did Southern/Taiwanese Chinese (34 compared with 14).

This article provides an overview of an experiment that examined how various cultural communication practices and perceptions affected the way in which individuals from different cultures perceived the same negotiation process.

Using Graham's definition of a question as "A statement in which the source asks the target to reveal information about itself," Ulijn and Strother (1995, chapter 7) identified five key types of question involved in intercultural business interactions. They also explained that these five question types occur in a particular order that paves the way to an agreement. The order in which these question typologies are used is

1. **Open questions** used to obtain information; they start with the words *who, what, where, why, when, which, how.*
2. **Reflecting questions** used to gain a clear understanding of backgrounds, a factor that lead to a certain position.
   a. *I don't think the terms of the settlement are satisfactory.*
   b. *You don't think they are satisfactory?*
3. **Closed questions** used to determine the exact indication within a category of the degree to which something has been agreed on. These are often questions that can only be answered with a *yes* or *no.*
4. **Leading or suggestive questions** used to force the other party into the direction that weakens its position to the benefit of the speaker. Such questions would include *"Do you really find your proposal realistic?"* and *"Do you know our product?"* (In these instances, the client does not know it, but if he or she says *no,* that response will trigger a full situational explanation that will waste his or her time)
5. **Directive questions** used to conclude a certain phase by means of a summary or a conclusion: *Can we draw up a contract?*

While empirical evidence about the use of all types of questions is rare, Ulijn and Verweij (in press) with van Dalen (1995) used the Kelley game together with the Stiles scheme of verbal response modes (1981) to analyze 480 questions from a sample of two Spanish and three Dutch monocultural negotiations and three Spanish-Dutch, intercultural negotiations that were conducted in English. The researchers found that, culturally speaking, the Dutch used significantly more questions in the form of a disclosure (revealing information about oneself) while the Spanish used more questions of an acknowledgment form (questions used to check whether the listener understands what was being said—for example, "You know what I mean?").

However, it seems as if cultural differences in questioning behavior might be linked to language and language proficiency. In the case of the Dutch-Spanish interactions observed in Ulijn and Verweij's study, the Dutch used fewer disclosure questions (provided less explicit, decision-making information) when speaking English than they did when speaking their native Dutch. The Spanish, how-

TABLE 1: OVERVIEW OF ALL INTERCULTURAL PERCEPTION RESULTS (BY 60 OBSERVERS)

Average

	Chinese	Dutch	Germans	French	Italians
Number of observers	12	12	12	12	12
Open	1.75	6.17	3	3.83	2.32
Reflective	2.75	3.08	3.5	2.42	0.84
Closed	2.58	3.33	2.67	6.08	1.28
Leading	3.33	4.67	3	2.58	1.84
Directive	1.58	5.58	3.83	3.25	2.04
Long Pauses	2.75	0.92	3.92	5.5	0.36
Interruptions	12.67	15.42	12.5	22.5	4.6

Germanic (Dutch and German) vs. Latin (French and Italian)

	Germanic	Latin
Number of observers	24	24
Open	9.17	6.15
Reflective	6.58	3.26
Closed	6	7.36
Leading	7.67	4.42
Directive	9.42	5.29
Long Pauses	4.83	5.86
Interruptions	27.92	27.1
Total (Average of all question types)	38.84	26.48

Negotiators Observers	Chinese Chinese	Chinese Dutch	Negotiators Observers	Dutch Chinese	Dutch Dutch
Open	0.83	2.33	*Open*	0.92	3.83
Reflective	1.5	1.17	*Reflective*	1.25	1.92
Closed	0.58	1.08	*Closed*	2	2.25
Leading	1	1.83	*Leading*	2.33	2.83
Directive	0.42	1.17	*Directive*	1.17	4.42
Total	4.33	7.58	*Total*	7.67	15.25
Long Pauses	1.17	0.42	*Long Pauses*	1.58	0.5
Interruptions	2.67	4	*Interruptions*	10	11.42

ever, seemed to transfer their frequent use of acknowledgment questions from their native Spanish to the English-language negotiations. This difference, however, might depend to some extent on foreign language skills because the Spanish subjects in the Dutch-Spanish interactions appeared to be less fluent in English than were the Dutch speakers. In this case, acknowledgment questions might have been used to check linguistic understanding (that is, "I speak English poorly, so I will use these questions to make sure you understand what I am trying to say in English.").

A similar kind of correlation seems to occur with cultural concepts of politeness, for one study of Dutch-French

interactions revealed that whenever a Dutch subject had a poor grasp of the French language, that person used Dutch politeness strategies when speaking in French. In this way, polite questions such as "Do you understand?" are a pretext that allow the speaker to monitor the development of relations with the listener. Thus, a poor command of the language of a given discussion can be advantageous, for it allows nonnative speakers to use politeness questions for two different purposes: to check for both linguistic understanding (explicit purpose) and monitor the development of the overall relationship between those parties involved (implicit purpose). In this way, the results of this study illustrate the Sapir-Whorf hypothesis (Sapir 1949; Whorf 1956), which, at least in its weak version, holds that culture frames language and language frames culture. The concept of linguistic determinism introduced by Edward Sapir and Benjamin Lee Whorf implies that language functions as a way of shaping one's experience, including culture. To what extent, for instance, would the use of English as a language of negotiation affect the way in which nonnative speakers of English like the Chinese process technical information presented in English? Is it possible to disentangle language and culture in this respect? Will English "acculturalize" according to the needs of its Chinese users who are the large majority over its native users, for instance, by becoming more implicit? Linguistic determinism would predict that the English language would indeed shape the concept of technology for many Chinese clients, and in so doing change their culture to one that is more explicit. Who, therefore, adapts to whom?

Part II: Silence In addition to questions, time use as related through silence is a crucial aspect of the negotiation process, for pausing says a lot about the speaker's thinking process (see Ulijn and Strother 1995, chapters 5 and 8). Different stages of time gaps and speech overlap occur between turns: a timeout or long silent period (> 10 seconds), a silence (> 0.5 seconds), a rest (< 0.5 seconds), or a successful interruption (0 seconds) (see Graham 1993). In many instances, the term *successful interruption* often means that a listener succeeds in taking over the turn of a speaker, while the term *pause* is often used to mean a lack of speech within turns. For practical reasons, however, this study used the term *pause* or *silence* to indicate periods of > 0.5 seconds of silence and the term *interruption* to mark instances of speech overlap.

As with questions, both silences and interruptions can be used in strategic ways. Slowing down, postponing, and keeping messages short and devoid of an accusatory, unduly apologetic, or timid tone might be ways to stop an aggressive, interruptive speaker. If, on the other hand, a person does not want to talk very much, that individual can use a long silence to encourage other parties involved in the negotiation to talk. However, when longer pauses (> 0.5 seconds) occur within a sentence, they show that the communication partner is trying to think while keeping the floor and maintaining control of the conversation. In other cases, shorter pauses indicate that the communication partner is formulating what he or she wants to say (see Ulijn and Strother 1995 for the psycholinguistic analysis of this speaking process). Different cultural perceptions of interrupting and of pausing, however, can make intercultural negotiations very competitive as members from different cultures draw different interpretations from and react differently to the same nonverbal cues.

Graham's (1993) Kelley game studies of multicultural business negotiations also examined long silent periods, or timeouts (> 10 seconds), as well as conversational overlaps (interruptions). Graham found that Koreans, Taiwanese, Germans, and Brazilians participating in the study did not use silent periods; hence, not all East Asian cultures (in this case, Koreans and Taiwanese) are silent. Rather, Graham's ordering of increasing silence according to culture is Korea, Taiwan, Germany, Brazil (no silence), France (least silent), and the U.S., China, Japan, the U.K., Russia (most silent)—hence, silence is not a communication concept exclusive to Asian cultures. According to Graham's findings, Latin cultures are the least silent, but not all Asian cultures are silent. The order of decreasing number of interruptions in a given negotiation process was Korea, Germany, France, Mainland China, Brazil, Russia, Taiwan, Japan, the U.K., and the U.S. According to these research results, speakers from Latin cultures appear to interrupt more often than do speakers from Germanic cultures, a factor that might explain the negative attitudes some Americans have toward interruptions. On the East Asian side, however, Koreans and Mainland Chinese often appear to interrupt more than Taiwanese and Japanese do.

In intercultural interactions involving a second language, however, proficiency in that second language might affect the way in which individuals from other cultures use silence. For example, a cultural stereotyping exercise during a recent International Relations Seminar held in the U.S. presented the premise that Chinese negotiators were often silent. The Chinese panelist participating in the exercise admitted that this statement was partially true, but while some Chinese might be silent when interacting in English with Americans, this silence was due in large part to the fact that some Chinese negotiators do not speak English very well and might not want to lose face by making too many grammatical mistakes in English. However, when using their native language with members of their own culture, the same people tend to be quite talkative. Thus, linguistic ability and culture together could greatly affect the ways in which silence and interruptions are used and perceived in intercultural interactions.

TABLE 2: COMPARISON OF THE NUMBER OF COUNTED QUESTIONS, REFLECTIONS, AND ACKNOWLEDGMENT FORMS (HILGERS 1994) AND LONG PAUSES AND INTERRUPTIONS (ULIJN AND LI1995) WITH BOTH MONO- AND INTERCULTURAL PERCEPTIONS

	Chinese				Dutch			
			Perceived				Perceived	
	Number	%	by Chinese	by Dutch	Number	%	by Chinese	by Dutch
Questions	24	***3.78****	4.33	7.58	27	***4.72***	7.67	15.25
Reflection**	16	***2.52***	1.5	1.17	23	***4.02***	1.25	1.92
Acknowledgment***	228	***35.91***			130	***22.73***		
Total statements	**635**				**527**			
Pauses (0.5 to 10 seconds)	13	***4.7***	1.17	0.42	26	***11.2***	0.5	1.58
	1:4		1:2.5	1:10	=		1:20	1:6
Interruptions	50	***18.2***	2.67	4	22	***9.5***	11.42	10
Total turns****	**275**				**231**			

- ** Percentages of the totals are given in bold italics; they do not total 100% because Hilgers also uses other Stiles categories to characterize statements, and the missing percentage from Ulijn and Li's study represents "normal" turn switches that are not marked by either a pause or an interruption (or speech overlap).*
- *** Hilgers (1994) counts all reflection forms including questions; perception data include only questions.*
- **** Item acknowledgment forms; perception data is not available.*
- ***** The difference in number of statements and turns is explained by the fact that one turn may include several statements.*

METHODOLOGY

Research hypotheses

The research reported in this article focused on how individuals from cultures as distinct as those of the Netherlands and China might perceive a negotiation between individuals from their respective countries. Researchers used individuals from these two cultures as well as individuals from other "neutral" cultures (neither Dutch nor Chinese) as a test group for investigating the validity of four central hypotheses. Each of these hypotheses was based on a prior knowledge of the communication patterns used by members of these two cultures, and these hypotheses focused on a series of questions observers were asked to answer after watching a videotape of a staged Dutch-Chinese negotiation process. The four hypotheses were

1. The Chinese tend to be less tolerant of questions than are the Dutch; therefore, the Chinese might perceive more questions in the Dutch behavior than will the Dutch because the Dutch will consider such questioning behavior "normal."

2. The Dutch tend to be less tolerant of silence, and therefore, they might perceive more silences on the part of the Chinese and will consider such silence "unpleasant." (The Chinese might consider such silences "normal.")

3. The Dutch tend to be less tolerant of interruptions than the Chinese, and therefore, the Dutch might perceive the Chinese as making more interruptions than the Chinese themselves will notice. (The Dutch will often consider such interruptions as impolite and not to be expected from the Chinese, whom the Dutch perceive as polite. Thus, any interruptive behavior on the part of the Chinese might be considered "aberrant" by Dutch expectations and readily attracts the attention of Dutch observers.)

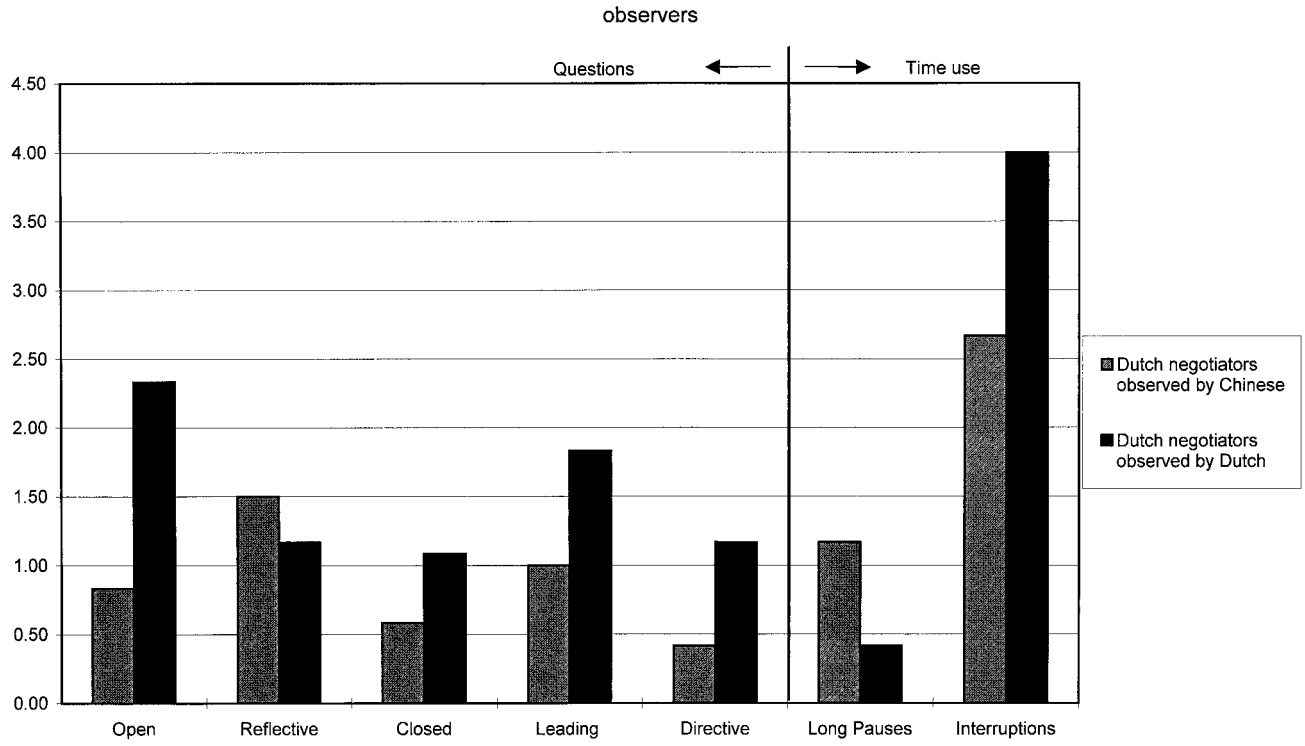

Figure 4. Mono- and intercultural perception of the Dutch negotiation team by Chinese and Dutch observers.

4. Neutral observers (individuals who are neither Dutch nor Chinese) might perceive fewer differences in questioning and time-use behavior than the Dutch or the Chinese observers will notice. In addition, the perceptions of individuals from a Latin background (French and Italian) might be more similar to the Chinese point of view, while the perceptions of German observers would be similar to the Dutch because both are Germanic cultures.

Using these statements as an observational baseline, the researchers created a test situation that allowed them to measure the way in which individuals from different cultures perceived the same negotiation meeting.

Experimental scenario

The experiment involved a Dutch-Chinese business relationship that contrasted the Dutch need for open directness with the Chinese desire for harmony. Researchers made a videotape of an actual Chinese-Dutch negotiation involving partly experienced negotiators discussing Dutch-supplied textile-printing equipment that broke down just after the warranty period ended. In the videotaped scenario, the Dutch repaired the equipment in a timely manner, but they then sent the Chinese a bill for the repairs (a practice that corresponded to their Western understanding of contracts, but that was unexpected by the Chinese).

To resolve the dispute resulting from this action, two four-person teams (one Chinese, the other Dutch) met to discuss the situation. Both teams included a technical manager, a marketing manager, and a general director. In addition, the Dutch team had a financial manager, and the Chinese team had a go-between/interpreter who spoke both Dutch and Chinese and who acted as a leader behind the scenes. The negotiation ended with a deal that could have been interpreted differently by the two parties involved.

The position of both leader-speakers deserves some explanation. On the Dutch team, the leader of the team was the manager, the eldest person on the team and also the group's spokesperson. This individual acted as the most important person on the team and took advice from his teammates only when such advice was necessary. The Chinese team, in contrast, preferred to shield the leader (who was also the eldest person on the team) by intercepting and responding to all the questions asked by the Dutch. Instead of letting the Chinese leader speak, even though he was bilingual (Dutch and Chinese) and an apt person for the speaker-position, his teammates did the speaking for him. The Chinese leader acted from behind the actual speaker and was silent during the entire negotiation. Dur-

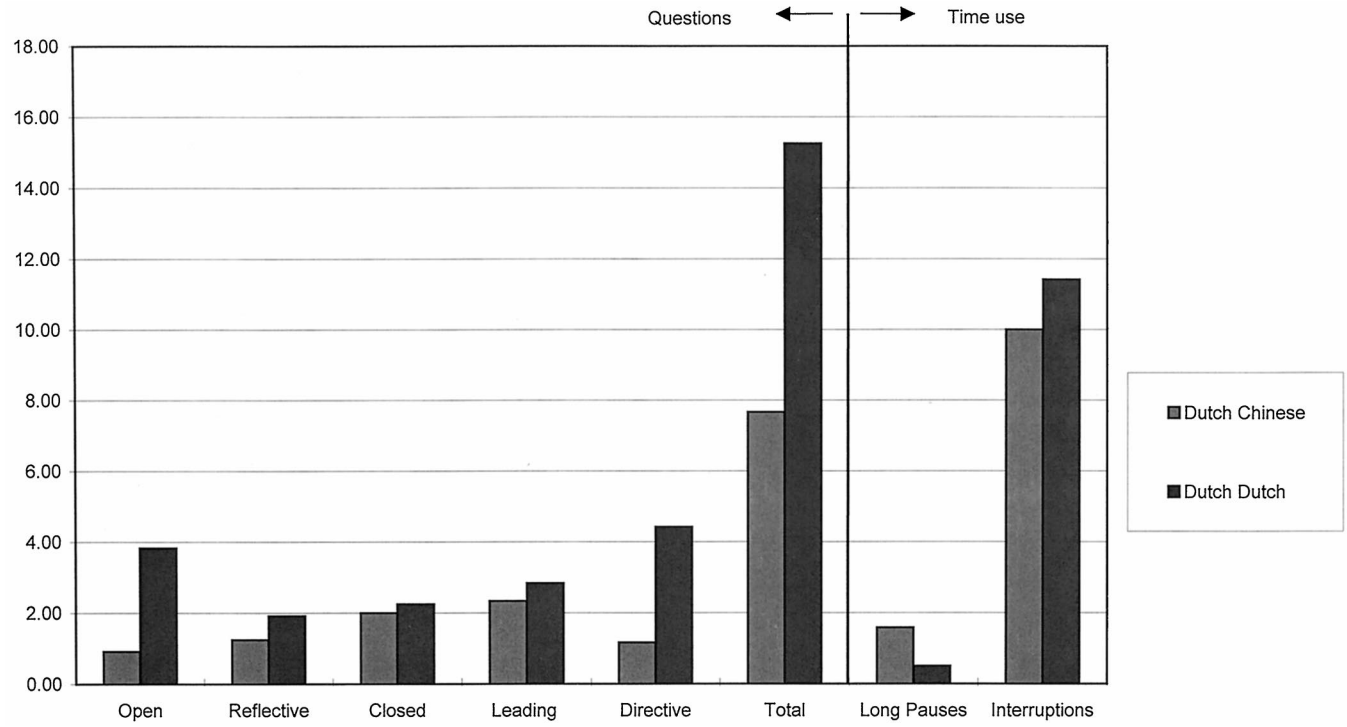

Figure 5. Mono- and intercultural perception of the Dutch and Chinese negotiation teams by Dutch observers.

ing the negotiation process, the actual Chinese spokesperson appeared to have no power, for all her actions seemed supervised by the team's silent leader. In sum, one could say that the Chinese team used an intermediary to cover their team leader while the Dutch team's leader willingly exposed himself by acting as both the team's leader and its speaker.

While the Dutch team consisted entirely of men, the Chinese team designated a woman as its speaker. In the context of modern Mainland Chinese culture, it is not surprising to see a woman in a speaker position due to the Communist principles of equality between men and women despite the possible lower status of women in some Asian cultures. Apart from the two leaders, the Chinese technical manager was also an experienced negotiator, and all the other negotiation participants were advanced-level engineering students (three Dutch) and students majoring in English (two Chinese). The fact that there was only one female negotiator (on the Chinese side) present seems to be somewhat unusual in such predominantly male business settings, although the number of female negotiators is growing, particularly in the case of Western teams. In sum, all the participants were rather fluent in English, except for perhaps one or two Dutch students and the Chinese technical manager, all whom had weak to intermediate English-language skills.

In the context of the video, the Dutch were hosting their Chinese clients, who had come to Europe to discuss the warranty problem. In this context, technical documents—which facilitated the correct use, maintenance, and service of the equipment—served as a key part of the negotiation process that was designed to settle the conflict about the bill. An agreement was reached after 60 minutes of bargaining. The working language of the negotiation was English, and no interpreter was employed in the negotiation. While the background of the Dutch and Chinese guaranteed genuine culture differences, the language used in the negotiation process might have been critical. The Chinese used their own language among themselves, but for some reason the Dutch delegation did not speak Dutch among themselves.

The videotaped negotiation was watched by similar numbers of students from each of the participating cultures (12 Dutch and 12 Chinese). The videotaped negotiation was also watched by groups of "neutral" observers from three other countries (12 from Germany, 12 from France, and 12 from Italy), and these neutral observers were randomly selected by one of the researchers as he conducted various seminars abroad. Because the researcher did not have access to any Asian cultures during his trips abroad,

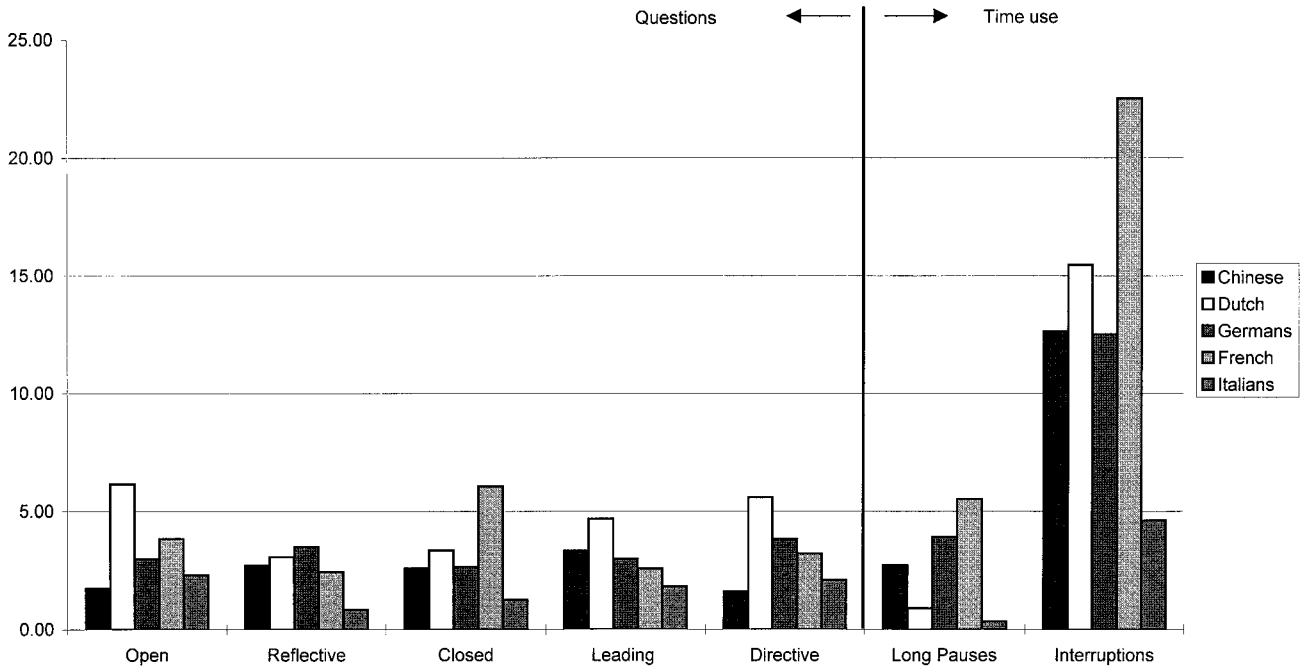

Figure 6. Average estimated frequency of five question and two time-use types by all 87 observers from five different national clusters

no members of these cultures were a part of the neutral observation pool. For this reason, the authors of this paper suggest that any future research relating to this project attempt to include neutral observers from one or more Asian cultures.

All observers were asked to watch the video and to count the number of long silences, interruptions, and questions according to a series of definitions that ranged from *open* to *very direct.*

Due to a technical problem in China, the Chinese observers were able to see only half of the negotiation tape, but the results of the overall experiment were corrected by multiplying the results of the Chinese portion of the questioning by two. Because one of the researchers observed an equal distribution of tallying activity over the halves of the video by all non-Chinese groups, there were no systematic reasons to believe that the nature of the negotiation would be different across the two halves for the phenomena observed (see Table 2 for the frequencies on the basis of a transcript analysis of the audiotrack of the videotape). In reality, questions, pauses, and interruptions were about equally distributed over Dutch and Chinese audiences (see the frequency counts based on transcript analyses of the same tape by Hilgers 1994 and Ulijn and Li 1995).

All observers did this exercise as part of an international negotiation seminar that included questioning and time-use techniques, and the seminar was conducted in English. The student observers came from various fields, including engineering, business, economics, and communication, and all the observers were in their third to fifth year of study. Also, roughly one-third of the observers were female. All the students were selected on the basis of their advanced English skills, and half of the Chinese observers were pursuing an MA in English.

All observers first received a sheet that contained short definitions and examples of the five kinds of questions identified by Ulijn and Strother (1995), including

- Open questions
- Reflecting questions
- Closed questions
- Leading or suggestive questions
- Directive questions

(A detailed discussion of these question types is presented earlier in this article.)

This sheet also contained definitions for two key time-use types:

- Long pauses (timeouts of > 10 seconds; pauses of more than 0.5 seconds are sometimes perceived as long, despite their actual duration)
- Interruptions (defined individually by each observer)

Observers were then instructed to watch the videotaped Dutch-Chinese negotiation and to note every time they

TABLE 3: INTERCULTURAL PERCEPTIONS (BASED ON RESULTS DISPLAYED IN FIGURE 4)

The Dutch Side	The Chinese Side
1. The Dutch observers perceived members of their own culture as using more open, reflecting, closed, leading, and directive questions than they observed for the Chinese.	1. The Chinese observers perceived members of their own culture as using fewer open, closed, leading, and directive questions than they observed for the Dutch.
2. The Dutch observers believed that members of their own culture used more reflecting questions than they observed for the Chinese.	2. The Chinese observers seemed to think that members of their own culture used more reflecting questions than they observed for the Dutch.
3. The Dutch observers saw the Chinese as using slightly fewer long pauses than what they observed for individuals from their own culture.	3. The Chinese observers seemed to view members of their own culture as using fewer long pauses than the Dutch (almost twice as many as the Dutch observers perceived).
4. The Dutch observers perceived members of their own culture as interrupting more often than did Chinese observers. (In fact, Dutch observers seemed to perceive the Dutch as interrupting 3 times more often than did the Chinese—11.42 for the Dutch vs. 2.67 for the Chinese.)	4. The Chinese observers also seemed to perceive the Dutch subjects as interrupting more often than did the Chinese subjects. The Chinese observers, however, appeared to perceive the Dutch as interrupting 4 times more often than did the Chinese.

observed an instance of one of the question types or time-use types as well as to record which party (Dutch or Chinese) used this question or time-use type. (The researchers believed that the use of such question and time distinctions would provide a more in-depth understanding of how individuals from different cultures perceive the same interaction because, in a negotiation, asking questions and a proper dealing with time both serve as an efficient communication strategy.)

The observational data was tabulated and then compared using two chi-square tests for independent samples. One test compared the Chinese and the Dutch observers because each of those groups shared their culture with one of the negotiating teams. The other test compared the neutral observers (Germans, French, and Italians) with the Dutch and the Chinese, and distinguished Germanic from Latin cultural styles and preference. These tests helped the researchers determine whether there was a correlation between the cultural background of the observer and what that person observed. They served to see whether there were dependencies between the cultures. If so, intercultural perception differences might not matter at all, for the existence of an intercultural dependency would mean that culture is not an independent predictor of differences among the groups and that differences might be due to something else. Unfortunately the samples were too small to test this dependency by question type or time-use type.

An overall inspection of the data was made using simple sign tests and a rank correlation. Additionally, a statistical analysis with p levels of 0.001 was used to determine whether there was a correlation between the culture of the observer and the kinds of activities (question and time-use types) involved as a measure for the intercultural independence of the samples.

RESULTS

The researchers collected and reviewed data from these observational sessions and placed this data into a table to gain a preliminary understanding of the kinds of activities observers from different cultures were noticing. Table 1 groups the initial observational question and time-use type findings according to culture and provides some insight into how individuals from different cultures can have different perceptions of the same event.

The researchers then segregated the Chinese and the Dutch observational findings from those of the other cul-

TABLE 4: DUTCH AND CHINESE MONOCULTURAL (SELF-) PERCEPTIONS (BASED ON RESULTS DISPLAYED IN FIGURE 5)

- The Chinese observers appeared to perceive almost twice as many long pauses for members of their own culture than the Dutch see for theirs (1.17 vs. 0.50).
- The Dutch observers appeared to perceive almost five times more interruptions for their own culture than the Chinese did for theirs (11.42 vs. 2.67).
- The Dutch observers appeared to perceive the Chinese subjects as using more open, closed, leading, and directive questions as well as more interruptions than did Chinese observers (1.17/1.50 and 0.42/1.17).

tural observers. Both the Dutch and the Chinese perceptions of the kinds and the frequencies of question and time-use type that occurred during the negotiation were then first compared with the actual numbers and kinds of question and time-use types researchers had found using strict linguistic definitions for question and time-use types (see transcript analyses by Hilgers 1994 and Ulijn and Li 1995). The results of the Chinese and the Dutch perceptions, as well as the way these perceptions related to actual numbers established by researchers, are displayed in Table 2.

Finally, the researchers used graphs of this data to determine relationships and trends between culture and communication. Figure 4 reveals how both Chinese and Dutch observers perceived the question and time-use behavior of Chinese negotiators. Figure 5 displays how the Dutch perceived the same kinds of behavior in both Chinese and Dutch negotiators, and Figure 6 reveals how all the various cultural observers (Chinese, Dutch, French, German, and Italian) perceived question and time-use type in the videotaped negotiation.

The graphs of this observational data revealed the trends indicated in Table 3.

These results were then compared with similar observational data gathered on non-Chinese and non-Dutch participants (see Table 1 and Figure 6). In addition to the data collected on the Chinese and the Dutch observers, the scores for the five different national groups (Chinese, Dutch, German, French, and Italian) appeared to be highly independent on the basis of a chi-square test (degree of freedom [*df*] 24, value 268.49, $p < 0.001$). These results mean that the perception score differences depend on the given national culture of the perceivers. Therefore, intercultural perceptions exist in this data.

The scores of the neutral observers were also split into a Germanic group (Dutch and German) and a Latin group (French and Italian). The perceptions of these observers of the Chinese negotiators were examined to test the question "Is there a cultural bias in the perception if people do not observe their own culture in a negotiation?" A chi-square test indicated that those samples appeared to be highly independent (*df* 6, value 97.58, $p < 0.001$). These findings indicate that the perception score differences depend significantly on the Germanic/Latin dichotomy. So again, intercultural perception differences occur, but there is not an overall Germanic view as opposed to a Latin one.

This combined data from Chinese, Dutch, and neutral observers indicates that culture has some impact on how individuals perceive negotiation behavior, especially in relation to the use of reflecting questions (item 2), the perception of how often and when pauses occurred (items 3 and 5), and the use of interruptions (items 4 and 6). How do these trends relate to the original hypotheses that formed the focus of this study? The results are presented in Table 5.

To what extent are those results affected by effects of the observers' gender and English skills? According the observation of one of the authors (Ulijn) who attended both the original session and all videotape presentations, the sole female negotiator displayed no presupposed "shy" Chinese behavior. Rather, she used both English and Chinese to do a lot of talking and interrupting, and to orchestrate the turns of her Chinese teammates in a rather harmonious manner (among themselves). Because females were well represented in all the cultural groups of observers, no typical gender effect (for example, the notion that men would dominate a woman and that gender would offset the way in which an individual perceived the videotaped negotiation) was observed.

The researchers also believed that because all the observers had approximately the same level of English language skills (near-fluent), they would all be able to correctly identify any question, silence, or interruption because of linguistic competency. For this reason, the researchers believed that the effects of language on cultural perception would be minimal.

If we include the two national groups involved in the negotiation themselves, one might conclude that Dutch and French observers perceive the most questions and time-use types and that the Chinese and the Italian observers perceive the fewest (see Figure 6). Thus, in relation to the research subjects, some congruity seems to exist between Chinese and Italian patterns of perception and between Dutch and French patterns of perception (see Figures 4 and 5). However, the difference among Dutch, French, and German observers is not very substantial. The Chinese and the Italian observers

TABLE 5: HYPOTHESES AND FINDINGS

Hypothesis	Findings
1. The Chinese are less tolerant of questions than are the Dutch; therefore, the Chinese will perceive more questions in the Dutch behavior than the Dutch will because the Dutch will consider such behavior "normal."	1. **False.** The Dutch always perceive more of the same question type in Dutch behavior than do the Chinese (see Figure 5). In reality, however, the Chinese ask slightly fewer questions (see Table 1).
2. The Dutch are less tolerant of silence; therefore, the Dutch will perceive more silences on the part of the Chinese and will consider such silence "unpleasant." (The Chinese themselves will consider such silences to be "normal.")	2. **False.** The Chinese perceive more silence in Chinese behavior than do the Dutch (1.17 compared to 0.42). See Figure 4 for details. In reality, the Dutch use more pauses, a fact that is confirmed by the Chinese perceivers (1.58 compared to 1.17). See Table 1 for details.
3. The Dutch are less tolerant of interruptions than the Chinese are; therefore, the Dutch will perceive the Chinese as making more interruptions than the Chinese themselves will notice. (The Chinese will consider such interruptions as impolite and not expected from the "polite" Chinese, who wish to impress their Dutch audience.)	3. **True.** The Dutch average 4.00 of the overall interruptions compared to 2.67 for the Chinese (see Table 1). The data, however, shows that many more interruptions occur for the Chinese than for the Dutch (see Table 2).
4. Neutral observers (individuals who are neither Dutch nor Chinese) might perceive fewer differences in questioning and time-use behavior than the Dutch or the Chinese observers will notice. In addition, the perceptions of individuals from a Latin background (French and Italian) might be more similar to the Chinese point of view while the perceptions of German observers would range in the Dutch camp as both are Germanic cultures.	4. **Partly true.** The Dutch perceived more question and time-use types than did the Chinese (see Figure 5), and of the "neutral observers," Germans perceived more questions and time-use types than did Italians (see Figure 6). The French, however, seemed to perceive more questions and time-use types than did their German counterparts (see Figure 6). In sum, the Germanic observers appeared to be more perceptive of question types than were their Latin counterparts (total average of 38.84 for Germanic observers as compared to 26.48 for observers from Latin cultures). Their observation time-use type was about the same (32.75 compared to 32.96 total average per person).

seemed to perceive the fewest distinctions while the Dutch and the French observers seemed to perceive the most, followed almost immediately by the German observers (see Figure 6). So the data on Dutch and German observers reveals some congruity in perception, but less consistency is found between the Chinese and the Latin observers' perceptions of behavior.

The more an individual encounters a particular behavior, the more he or she becomes accustomed to it. Thus, an individual could become so used to members of his or her own culture using certain nonverbal behaviors that the individual might actually become blinded to how often this behavior actually takes place in his or her own culture. As a result, that individual could perceive persons from another culture as using a particular behavior far more often than they actually do because, in the new and unknown context of another culture, such behavior seems to stand out more. For example, in the context of this experiment, the Chinese observers seemed to perceive more reflection and silence for themselves than the Dutch observers did,

and the Chinese observers also seemed to perceive much more interrupting behavior in the Dutch subjects than in the Chinese subjects (see Table 2). Similarly, the Chinese observers perceived the Dutch as using many more questions when, in reality, the Dutch subjects asked only slightly more than did the Chinese in the same negotiation (Hilgers 1994). Other such cultural-based perceptions could include the following observations:

- The Chinese observer might claim to be from a culture of reflection (an expression of Confucian, Asian philosophy), and might therefore perceive more reflecting questions used by members of the same culture in this negotiation than they observe for the Dutch. Dutch observers, however, seem to do the opposite, and based on the transcript analysis by Hilgers (1994) of the same negotiation, the Dutch negotiators used even more reflection forms, including questions, than their Chinese counterparts (4.02% of all speech acts counted compared with 2.52%).
- The Chinese interrupt twice as often as the Dutch, according the transcript counts (18.2% compared with 9.5)%, yet the Chinese observers seem to think that the Dutch are doing most of the interrupting, and the Dutch observers seem to agree with this perception.
- The Dutch pause a lot more than do the Chinese (11.2% compared with 4.7%), and this behavior is confirmed by both Dutch and Chinese observers, but the Chinese perceptions of pauses more closely parallel the actual number of pauses found in the transcript (see Table 2). Are the Chinese simply more sensitive to this behavior (see the discussion of silence in the literature review section of this article, as well as Table 1)?
- The Dutch ask slightly more questions than do the Chinese (4.72% compared with 3.78%), but the Dutch perceive this behavior more in the Chinese than the Chinese do in the Dutch. They seem, to some extent, to "blame" each other for asking questions.

Perception, however, might depend on the observer's cultural background to the extent that the Dutch observers appear to perceive quite a variety of questions whereas Italians and Chinese observers with the same amount of training appeared to perceive fewer kinds of questions. The essential question would then become "Who sees the truth?" What you see might not always be true for participants from other cultures and might not even correspond to the "objective" reality of the situation. This objectivity factor would confirm that neutral observers tend to have a less biased perception of an interaction than would individuals from the cultures involved in that interaction. The facts differ also from the perception, so there is some bias or inaccuracy in observing, but that bias does not necessarily result only because the observer comes from a specific cultural background (see Table 2). Other factors, particularly personal characteristics—as could be seen from fluctuating standard deviations from the average observations of the perceivers—might also play an important role related to bias and the perception of events.

AREAS FOR FUTURE INVESTIGATION

This study has some limitations, partly because of its exploratory nature and partly due to its practical limitations. A better design might have allowed for a more refined statistical analysis. The sign test and rank correlation we used are rather impressionistic due to the size of the overall subject/observer base. The researchers did not ask the negotiators themselves to take the perception test, the results of which could have served as an anchor point. The averages generated by the data collection and tabulation process are often very low, meaning that many perceivers filled in almost nothing on their answer sheets and that a standard deviation might be very high even within a national group. We can offer only an impression and an exploration of the intercultural perception phenomenon and no real proof. We must therefore caution against far-reaching conclusions and implications. There seem to be some "hard facts," however, and these facts include the following concepts.

- The reflection and silence aspect related to the Chinese subjects and the Chinese observers' perception of their interruptive behavior (observers from non-Chinese cultures perceived the Chinese as interrupting far more often than did the Chinese observers)
- The Dutch observers' perceptions of the Dutch subjects' directive attitude (the Dutch observers see the same number of directive questions in the Chinese negotiators, as the Chinese observers see in the Dutch negotiators—1.17)
- The fact that all 60 observers cover all question types and long pauses at comparable frequencies, a finding that supports the psychological plausibility of the strategic typology of questions designed by Ulijn (see Ulijn and Strother 1995, chapter 6) for practical negotiation training purposes
  This typology (see Table 1) can be used to train business negotiators in how to use particular kinds of question for a strategic negotiating advantage (for example, gain control of the negotiations).

These facts, in turn, provide a foundation for those individuals who wish to conduct more in-depth research, including investigations of the differing dynamics and perceptions that can affect how members of these two cultures interact in a negotiation.

Although this is not a preliminary study, we wish to qualify some of our results to avoid overgeneralization involving both theories of international technical communication and the practices of technical communicators who deal with international audiences on a regular basis. Further research could be designed to reflect psycholinguistic theory about communication and relate better to the Whorfian view of language and culture, and assist in future strategic international communication processes with respect to using questions and time in negotiations. Psycholinguistically, it would be interesting to determine when one should ask which question type in a successful negotiation process, as the Ulijn typology suggests (see the discussion of questions in the literature review and Table 1 in this article).

Similarly, it would be interesting to examine when pauses and interruptions best fit into the negotiation process and how one could use the pauses of a partner to determine when to positively interrupt. (Note that such interruptions are best done at the formulation stages and not the conceptualization of a sentence, where pauses are long and "invite" a takeover of the speaking turn (see Ulijn and Strother 1995 for more details of this speech production process). It is also our belief that further research into this area should attempt to involve the following topics or approaches:

- An efficiency test to measure the effects of pauses at the beginning of an intercultural negotiation process and of more interruptions toward the end of that process
- Further intercultural perception data-gathering under strictly controlled conditions that focus on the main points resulting from this study (directive versus reflective questions, and silence versus interruptions)
  A more specific point might be the interrupting behavior that semed to be displayed by the Chinese subjects. If this behavior is meant to be cooperative, a distinction between positive and negative interruption should be established and tested in comparable monocultural and intercultural settings, keeping the negotiation issue constant.
- Studies that establish the link between the Sapir-Whorf hypothesis and the implicit/explicit dichotomy of the iceberg metaphor
  Such studies should examine how explicit the technical information needs to be if the target language of the client is Chinese and how implicit the technical documents and oral supports must be to achieve effective international communication if English is used among both native and nonnative speakers.

By exploring these various aspects of intercultural communication, researchers can begin to develop communication systems that account for the communication difficulties that result from cultural differences.

By exploring these various aspects of intercultural communication, researchers can begin to develop communication systems that account for the communication difficulties that result from cultural differences.

CONCLUSION

Mutual intercultural perception appears to affect international oral communication. The previously mentioned elements might help professional communicators better understand the various intercultural audiences with whom they have to share technical information about their company's product. In the context of this study, Dutch and Chinese observers' perceptions of the same event might reveal how communication researchers can use psycholinguistic concepts to evaluate intercultural communication data in ways that can benefit professional technical communicators. Current patterns of Internet use will probably reinforce this need to bring the implicit and explicit presentation styles together without a clear distinction between strictly oral and strictly written, and such a situation will certainly make the need for such intercultural communication studies even more pressing.

Although pause and interruption data from intercultural negotiations might not be of direct use for technical writing, it does have important implications for the overall technical communication profession. By realizing how different cultures might perceive and interpret the same nonverbal cues differently, professional communicators can begin to understand how intercultural confusion could occur, especially in the context of a business negotiation. And this increased understanding can help communicators anticipate and reduce the degree of confusion that could occur at such negotiations. The findings of this study might also be helpful for the technical communicator who has to negotiate management information tasks and who finds him- or herself in an increasingly multicultural workplace, whether abroad or at home. TC

ACKNOWLEDGMENTS

The students in Xi-an, Eindhoven, Darmstadt, Lille, and Rome attending the seminar in international business negotiation conducted

by Jan Ulijn were great observers. We thank them for the post-seminar discussions on how to use those perceptions for our own business. In particular, we are grateful to the Darmstadt student research team who used their biculturalism with Spain (Christian Wrusch) and Romania (Mircea Dascalu and Mircea Teodorescu). Thank you all for your hard work on the data gathered during the course of this study. Thank you also to Andreas Lincke and Yunus Karakaya, who assisted with the figures and the tables in this study. Finally, our thanks to Saul Carliner and to two anonymous reviewers, all of whom helped the authors clarify some tough academic aspects of the study and make it more practical.

We would also like to note that this article is the result of an intercultural collaborative effort with the primary author (Jan Ulijn of the Netherlands) conducting the experiment, gathering the data, and writing the initial draft of the article, and the secondary author (Kirk St.Amant of the U.S.) revising and redrafting the article.

REFERENCES

Attneave, F. 1971. "Multistability in perception." *Readings from* Scientific American 225 (December):91–99.

Barclay, R. O., T. E. Pinelli, M. L. Keene, J. M. Kennedy, and M. Glassman. 1991. "Technical communication in the international workplace: Some implications for curriculum development." *Technical communication* 38, no. 3:324–335.

Boiarski, C., B. Northrup, L. Grove, M. Phillips, L. Myers, and P. Earnest. 1995. "Men's and women's oral communication in technical/scientific fields: Results of a study." *Technical communication* 42, no. 3:451–459.

Bond, M., and G. Hofstede. 1989. "The cash value of Confucian values." *Human systems management* 8:195–200.

Carliner, S. 1992. "What should you get from a professionally oriented master's degree program in technical communication?" *Technical communication* 39, no. 2:189–199.

Darley, J. M., and J. Cooper. 1998. *Attribution and social interaction, The legacy of Edward E. Jones*. Washington, DC: American Psychological Association.

Dascalu, M., M. Teodorescu, and C. Wrusch. 1998. "Negotiation: The role of intercultural perception." Unpublished thesis for the International Business Negotiation Seminar, Fachbereich 1: Law and Economics, Technical University of Darmstadt (Germany).

Driskill, L. 1996. "Collaborating across national and cultural borders." In *International dimensions of technical communication*, ed. D. Andrews. Arlington, VA: Society for Technical Communication, pp. 23–44.

Etz, D. V. 1992. "Confucius for the technical communicator: Selection from *The analects." Technical communication* 39, no. 4:641–644.

French, W. L. and C. H. Bell. 1979. *Organization development*. Englewood Cliffs, NJ: Prentice Hall.

Gilbert, F. 1992. "The technical presentation." *Technical communication* 39, no. 2:200–201.

Graham, J. L. 1993. "The Japanese negotiation style: Characteristics of a distinct approach." *Negotiation journal* 9, no. 2:123–140.

Hall, E. T. 1959. *The silent language*. New York, NY: Doubleday.

Hall, E. T. 1976. *Beyond culture*. New York, NY: Doubleday.

Hall, E. T. 1998. "Three domains of culture and the triune brain." In *The cultural context in business communication*, ed. S. Niemeier, C. P. Campbell, and R. Dirven. Amsterdam, the Netherlands: John Benjamins, pp. 11–30.

Hendriks, E. 1991. "Research on intercultural business negotiations: An introduction." In *Business communication in multilingual Europe*, ed. C. Braecke and H. Cuyckens. Antwerp, Belgium: UFSIA, pp. 169–186.

Hofstede, G. 1980. *Culture's consequences: International differences in work-related values*. Beverly Hills, CA: Sage.

Hofstede, G. 1991. *Culture and organization: The software of the mind*. New York, NY: McGraw Hill.

Hilgers, F. 1994. "Beleefdheid beleefd: een onderzoek naar beleefdheidsgedrag van Chinezen en Nederlandersin een technisch-commerciële onderhandeling [A study of the politeness behavior of Chinese and Dutch business negotiator]." Master's thesis, University of Utrecht, the Netherlands.

Jourard, S. 1964. *The transparent self*. Princeton, NJ: Van Nostrand.

Kaplan, R. 1966. "Cultural thought patterns in intercultural education." *Language learning.* 16:1–20.

Kohl, J. R., R. O. Barclay, T. E. Pinelli, M. L. Keene, and J. M. Kennedy. 1993. "The impact of language and culture on technical communication in Japan." *Technical communication* 40, no. 1:62–73.

Leonard, D. C. 1993. "Understanding and managing conflict in a technical communication department." *Technical communication* 40, no. 1:74–80.

Merk, V. 1994. "The Euromanager profile: A hierarchy of competencies." In *Europe on the move: Fusion or fission*, ed. D. Marsh and L. Salo-Lee. *Proceedings of SIETAR Europa*. Yyväskylä, Finland: University of Yyväskylä, pp. 309–316.

Mirshafiei. M. 1994. "Culture as an element in teaching technical writing." *Technical communication* 37, no. 2:276–282.

Murdick, W. 1999. *The portable business writer*. Boston, MA: Houghton Mifflin Company.

Mytrof, I. I., and R. H. Kilmann. 1985. "Corporate taboos as the key to unlocking culture." In *Gaining control of the corporate culture*, ed. R. H. Kilmann, M. J. Saxton, and R. Serpa. San Francisco, CA: Jossey Bass, pp. 184–199.

Page, C. W., and C. J. Selden. 1994. *Asking "just right" business questions*. Oxnard, CA: Graham Page.

Sapir, E. 1949. *Culture, language and personality*. Berkeley, CA: University of California Press.

Southard, S. G., and R. Reaves. 1995. "Tough questions and straight answers: Educating technical communicators in the next decade." *Technical communication* 42, no. 4:555–565.

Stiles, W. B. 1981. *Describing talk: A taxonomy of verbal response modes*. London, UK: Sage.

Sullivan, P. 1991. "Collaboration between organizations: Contributions outsiders can make to negotiation and cooperation during composition." *Technical communication* 38, no. 4:485–492.

Ulijn, J. M. 1995. "The Anglo-Germanic and Latin concept of politeness and time in cross-Atlantic business communication: From cultural misunderstanding to management success." In *Hermes* (Scandinavian journal of linguistics special issue on intercultural negotiation) 15:1–28.

Ulijn, J. M. 1996. "Translating the culture of technical documents: Some experimental evidence." In *International dimensions of technical communication*, ed. D. Andrews. Arlington, VA: Society for Technical Communication, pp. 69–86.

Ulijn, J. M., and R. Kumar. 1999. "Technical communication in a multicultural world: How to make it an asset in managing international business, lessons from Europe and Asia for the 21st century." In *Managing global discourse: Essays on international scientific and technical communication*, ed. P. J. Hager and H. J. Scheiber. New York, NY: Wiley, pp. 319–348.

Ulijn, J. M., and X. L. Li. 1995. "Is interrupting impolite? Some temporal aspects of turn witches in Chinese-Western and other intercultural business encounters." *TEXT* 15, no. 4:589–627.

Ulijn, J. M., and J. B. Strother. 1995. *Communicating in business and technology: From psycholinguistic theory to international practice*, New York, NY and Frankfurt, Germany: Lang.

Ulijn, J. M. and M. Verweij. In press. "Question behavior in monocultural and intercultural business negotiations: The Dutch-Spanish connection." *Discourse studies* 2, no. 2:1–32.

van Dalen, H. 1995. "To ask or not to ask: Is that the question?" Master's thesis, Eindhoven University of Technology, the Netherlands.

Whorf, B. L. 1956. *Language, thought and reality*. London, UK: Chapham and Hall Ltd.

JAN M. ULIJN is coauthor, with Judith B. Strother, of *Communicating in technology and business: From psycholinguistic theory to international practice* and has extensively researched and published in this field. He has taught academic and business audiences on this topic and related issues in the Netherlands, the U.S., China, Germany, and central and eastern Europe. He received his postdoctoral research training in linguistics and psychology at the University of Nijmegen (the Netherlands), the University of Besançon (France), and Stanford University (U.S.). Presently he holds the Jean Monnet chair in Euromanagement at Eindhoven University of Technology in the Netherlands and is a part-time visiting professor in international management and communication at Ghent University in Belgium. A fellow of STC, he is also a member of the IEEE Professional Communication Society, the Association for Business Communication (and winner of its Outstanding Researcher Award in 1998), and the Academy of Management. Contact information: J.M.Ulijn@tm.tue.nl

KIRK ST.AMANT received his MA in technical and scientific communication from James Madison University and is currently a graduate student in the Rhetoric and Scientific and Technical Communication Program at the University of Minnesota. A student member of STC, he is interested in international and intercultural communication, especially its practices in the online environment. Contact information: stam0032@tc.umn.edu