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Gaze, questioning, and culture

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"There is nothing so brutally shocking, nor so little forgiven, as seeming inattention to the person who is speaking to you [...] I have seen many people who, when you are speaking to them, instead of looking at, and attending you, fix their eyes upon the ceiling or some other part of the room [...] Nothing discovers a little, futile, frivolous mind more than this, and nothing is so offensively ill-bred."

Lord Chesterfield 1752 (Letters to his son, Letter CCLXXVIII)¹

Introduction

This chapter is about gaze behavior in conversation. Using data from three unrelated cultures (or more properly, speech communities), we ask whether there are, on the basis of these three cultures, plausible candidates for universal patterns of gazing during interaction, and where, on the contrary, we may expect to find culturally specific patterns. This focus is already rather different than the tenor of most of the other papers in this volume. Moreover, because of this focus, a central part is played by basic descriptive statistics, rather than the qualitative analysis of specific episodes.

Despite these foci and the methods adopted, we see this paper as addressing some central issues posed by conversation analysis (CA). We are interested in a pervasive conversational practice, namely when participants gaze at one another during conversation. There has been relatively little published work in CA on the systematics of gaze, and what there has been (e.g., by Goodwin 1981) will be shown by our data not to provide a possible general analysis of the phenomena. Extensive work by one of us (Rossano 2009) shows that gaze (in Italian conversation at least) can indeed be understood in CA terms, that is, in terms of a sequential analysis

of actions, but not directly in terms of the turn-taking apparatus or displays of engagement and attentiveness as had been supposed (e.g., Goodwin 1981).² Instead, what this work shows is that gaze is used, for example, to coordinate the development and closure of sequences and courses of action, to pressure for responses and pursue them, to indicate special states of reciprocity. This means that gaze to speaker can be used to signal that the recipient recognizes that the speaker is launching on an extended turn at talk (as in a story), or gaze away from the other participant can be used to signal the closing of larger units, for example, that the recipient recognizes that a multi-turn sequence is completed. On the foundation of this prior qualitative work, there is a good set of hypotheses that can be addressed by a statistical approach, where the various units and actions over which gaze is coded are fully informed by CA findings. This approach is not alien to recent CA research (cf. Heritage and Maynard 2006),³ where several works, usually in institutional settings, have looked at an interactional phenomenon and used quantitative methods to assess the association between that phenomenon and some exogenous variable whether that be time (e.g., in Clayman *et al.* 2007), prescribing outcomes (e.g., in Mangione-Smith *et al.* 2003) or race and class (e.g., in Stivers and Majid 2007).

One reason for adopting a statistical approach is our general goal of trying to understand whether gaze as an interactional practice has universal properties across cultures or not. We cannot make easy judgments about sameness and difference in conversational practices unless we can be sure that the extracts we analyze are reasonably representative of interactions in the culture in question – we need plenty of instances, across different speakers and recipients, where the actions and context are in some sense comparable. To achieve this, we have here adopted the following expedient. First we have established the relevance of looking at gaze in question–answer sequences in three different cultures because of the differences they could reveal with claims made in prior literature. We have, then, piggy-backed off a larger project concerned with the cross-linguistic comparison of question–answer pairs (Stivers *et al.* 2009), and focused in on gaze behavior in a sample of 300 question–answer pairs from each of the three cultures, as used by roughly ten distinct dyads (or *c.* twenty individuals) from

each culture who are engaged in naturally occurring conversation in informal settings. The three languages and cultures are completely unrelated: (1) Italians of northern Italy; (2) speakers of Yéli Dnye, a language isolate spoken on Rossel Island, a remote island off Papua New Guinea; and (3) speakers of Tenejapan Tzeltal, a Mayan language spoken in an indigenous community in the highlands of southern Mexico.

As we will show, this restricted sample is quite enough to show that earlier analyses of the occurrence of gaze in interaction are not general across functions and cultures. The results are also suggestive of more positive general hypotheses, which would need to be followed up by qualitative analysis of a wider range of actions and sequence types. Given the work earlier referred to (Rossano 2009), it is clear that we cannot expect a full understanding of gaze in interaction without such a wider analysis – question–answer pairs, for example, constitute a very different sequential environment if compared with storytellings. But we hope that these preliminary results will already serve as a useful orientation for this future work.

Earlier work on gaze in interaction

Human gaze behavior is a highly evolved system: Unique amongst primate species, the human orbit has evolved to display the sclera or white of the eye, the function of which can only have been to make gaze direction discernable to others at a distance (Kobayashi 1997, 2001; Morris 1985). Moreover, it has long been established that humans can judge the direction of other humans' gaze to within a few degrees of arc (Gibson and Pick 1963), and this capacity has been claimed to be crucial for the development of joint attention and human social cognition (Tomasello 1999). The social functions of gaze have been much commented upon, not least by Darwin (1872), who was especially interested in the role of gaze aversion in the display of shame and shyness, and of gaze engagement in the display of mastery, lust, and aggression, and who noted that infants do not display any sensitivity to these roles.⁴ Simmel also wrote about the “uniquely sociological function” of the eye and the “union and interaction of individuals [being] based upon mutual glances” (1969: 358). In particular he claimed that “the

totality of social relations of human beings, their self-assertions and self-abnegation, their intimacies and estrangements, would be changed in unpredictable ways if there occurred no glance of eye to eye” (1969: 358). Although there is no doubt that the social functions of gaze are important, one should not forget that gaze is also straightforwardly an indication of visual attention. Foveal vision directly indexes the centre of attention, despite the fact that movement in particular is easily picked up in peripheral vision. If one puts together these observations, there cannot be the slightest doubt that gaze engagement in interaction is a potentially potent tool, carefully deployed.

Most of the detailed work on gaze in interaction has been conducted by social psychologists or kinesic researchers working on interaction in English or other European languages. Much of this has inevitably been in laboratory settings. General conclusions include the fact that participants spend a considerable proportion of interaction time looking at each others’ face, and that these moments have some “central importance” in interaction (Argyle and Graham 1976: 6; see also Argyle and Dean 1965; Exline 1963; Goodwin 1981; Gullberg 2003; Gullberg and Holmqvist 2006; Kendon 1967; Nielsen 1962). Gaze in other directions seems likely to be attracted by objects relevant to the tasks at hand (cf. Argyle and Graham 1976), but gaze beyond that might be held accountable (e.g., as lack of interest, cf. Goodwin 1981, 1984).

A few researchers have explored the notion that gaze is more than just an ancillary index of interest or attention, namely that it plays a crucial role in organizing and regulating interaction. Besides claims about the importance of gaze for monitoring each other’s behavior and facial expressions (e.g., M. H. Goodwin 1980; Kendon 1967), Kendon (1967) and Duncan and colleagues (Duncan 1975; Duncan and Fiske 1977; Duncan and Niederehe 1974) have argued that speaker gaze has a “floor apportionment” function in conversation and can function as a turn yielding cue,⁵ but Beattie (1978, 1979) has countered that the speaker’s gaze away during early utterance production and reengagement during final production are occasioned purely by the need to reduce cognitive load and do not have any regulating function in terms of turn-taking.⁶ Nevertheless, the idea that gaze is closely related to participant role (speaking, or being addressed, in particular) has

been persistent. Specifically, it has long been claimed that in dyadic interaction people tend to look at the other participant more when they are listening than when they are speaking (Argyle and Cook 1976; Argyle and Dean 1965; Argyle and Graham 1976; Bavelas *et al.* 2002; Duncan and Fiske 1977; Exline 1963; Goodwin 1981; Kendon 1967, 1973, 1990; Kleinke 1986; Nielsen 1962; Rutter 1984).⁷ Kendon (1967, 1990; see also Sebeok 1981) provided a more precise description of the different patterns of speaker and hearer gaze: Hearers give speakers long looks interrupted by brief glances away, while speakers alternate looks toward and looks away from the recipient of approximately equal length. Goodwin, relying on a case-by-case analysis of the data, further supported by quantification in a small corpus, proposed two rules (1980: 275, 287; 1981: 57) that should account for participants' gaze behavior:

1. "A speaker should obtain the gaze of his recipient during the course of a turn at talk."
2. "A recipient should be gazing at the speaker when the speaker is gazing at the hearer."

If the recipient looks most of the time, then the speaker will find him or her gazing back any time the speaker looks toward the recipient. If the recipient is not looking at the speaker, the latter has resources (phrasal breaks, pauses, restarting the turn) to solicit and obtain the recipient's gaze. By proposing these as rules, Goodwin claims that participants' gaze behavior is interrelated rather than independent and suggests a system of norms to which participants are oriented during any turn-at-talk.⁸

This focus on turns at talk ("utterances" in Kendon's terms) as the level at which gaze behavior is organized is shared by those researchers (e.g., C. Goodwin 1980, 1981; Kendon 1967) who were particularly interested in its regulatory functions, which is to say how gaze affects and coordinates the exchange of turns between participants and how it displays engagement and disengagement in the conversation.

In contrast, based on sequential analysis of Italian conversations, Rossano (2005, 2006a, b, 2009) suggests that gaze in interaction is not organized primarily by reference to turns at talk. He argues that gaze behavior is mainly organized in relation to sequences of

talk and the development of courses of action, so that most of the variation in gaze direction should be observed at the beginning or at possible completion of courses of action accomplished through one or more sequences of talk.⁹ In addition, speaker gaze to recipient seems to serve as a way of putting pressure on the recipient to provide feedback (Bavelas *et al.*, 2002; Kendon 1967) or to produce a response and thus to pursue a response when one is missing (Rossano 2006b, 2009; Stivers and Rossano, in press).

All these claims have been based largely on research done on Indo-European languages or at least in Western societies. They are often challenged by ethnographic reports of anthropologists who have studied the languages and cultures of non-Western societies. Walsh (1991) and Evans and Wilkins (2000), for example, have suggested that the conversational style of Australian Aboriginal communities is fundamentally different from that of white middle-class Australians. While white Australian interaction is usually dyadic and face-to-face, Aboriginal interaction is held to be non-dyadic, talk is broadcast, and eye contact is not important. According to these authors,

a preferred seating pattern among friends is side by side (or even back to back) and people will only be “face to face” if there is a significant distance between them or they are separated by something like a fire, and even then the gaze will typically not be directed toward an interlocutor for any significant length of time. (Evans and Wilkins 2000: 582)

Hansen and Hansen (1992) make a related argument suggesting that the gaze patterns typical of European conversation are perceived as *offensive in many parts of Aboriginal Australia*. Two of the present authors have also claimed that they discern strong cultural differences in the use of gaze in connection with “response systems,” that is, in ways in which active reciprocity is demonstrated (Brown and Levinson 2005; Levinson and Brown 2004). Tzeltal recipients appear to avoid gaze and tend to produce verbal responses, repeating part of the prior speaker’s utterance, while Yélí Dnye recipients assume speaker gaze and thus are enabled to deploy a range of facial signals instead of, or in conjunction with, verbal responses (e.g., an eyebrow flash signals “yes,” a nose-wrinkling signals “wow!”).

One of our goals in this paper is to test whether this kind of cross-cultural difference can be demonstrated on sound numerical

grounds. The following section provides some qualitative ground that accounts for the development of our coding scheme for the comparison and displays initial evidence that prior claims about gaze behavior might not be appropriate for the cultures here examined.

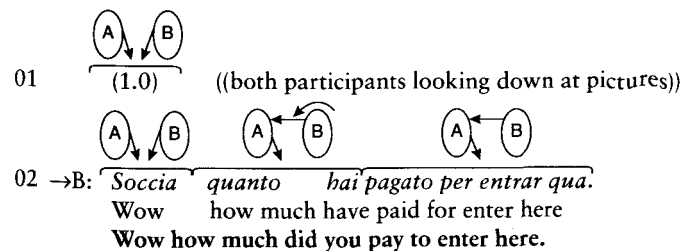
A different landscape: Some qualitative counter-evidence to prior claims

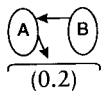
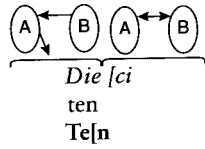
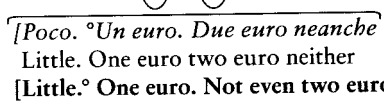

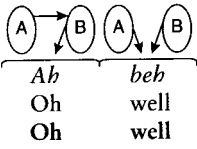

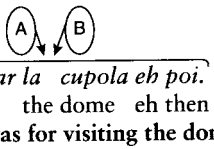

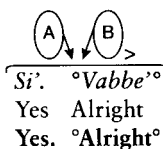

In this section we provide a few examples that motivate the development of the coding scheme and show a different organization of gaze in interaction. Extract 1 is taken from a dyadic conversation in Italian, and it shows that:










1. In a situation where participants tend to look at objects (pictures) relevant for the task at hand, the speaker nonetheless tends to look at the addressee while asking a question.
2. The speaker looks at the addressee during the questions but the addressee does not look back.
3. No remedial action is taken (cut-off, pauses, restarts, sound stretches) to get the recipient's gaze.
4. There are questions during which none of the participants looks at the other.

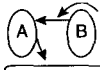
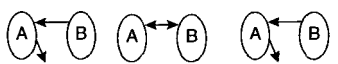
In Extract 1, two male friends in their twenties are sitting side by side and are looking at some pictures on the table. The pictures were taken by A during his holidays, and B starts the sequence at line 2 by asking how much it had cost to enter St. Peter's church in Rome (the picture they are looking at was taken inside this church). We focus on the questions at lines 2, 15, 19, and 21. (See Appendix B for gaze-marking conventions.)

(1) Italian 2PCOMP 9:33



- 03 
- 04 B: 
Die [ci
ten
Te]n
- 05 A: 
[Poco. °Un euro. Due euro neanche
Little. One euro two euro neither
[Little.° One euro. Not even two euros
- 06 
- 07 B: 
Ah beh
Oh well
Oh well
- 08 
- 09 A: 
Per visitar la cupola eh poi.
For visit the dome eh then
And it was for visiting the dome eh.
- 10 
- 11 B: 
Si. °Vabbe'°
Yes Alright
Yes. °Alright°
- 12 

- 13 A:  $\overline{\uparrow \text{Anzi niente.}}$
 Actually nothing
 \uparrow Actually nothing.
- 14  $\overline{(0.2)}$
- 15 \rightarrow B:  $\overline{\text{Ni|ente.}}$
 Nothing
 No[thing].
- 16 A:  $\overline{[\text{Perche' sono andato su' a piedi.}]}$
 Because be.1s gone up by feet
Because I went up on foot.
- 17  $\overline{(0.2)}$
- 18 A:  $\overline{[\text{Se pr[endi] l' ascensore paghi.}]}$
 If take.2s the elevator pay.2s
If you t[ake] the elevator you pay.
- 19 \rightarrow B:  $\overline{[\text{eh?}]}$
 eh
[eh?]
- 20  $\overline{(.)}$
- 21 \rightarrow B:  $\overline{\text{Si'}}$
 Yes
Yes.

- 22 A: 
Si?
 Yes
 Yes
- 23 B: 
Allora ci vado anch' io.
 Then cl. go.1s also I
 Then I will go too.

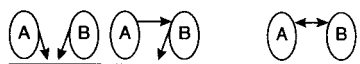
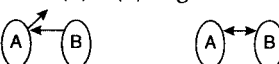


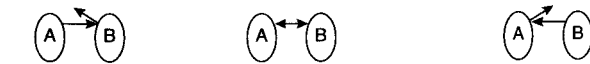
At line 2, B asks a question about the cost of entering the building represented in the picture. The speaker (B) turns toward the recipient (A) at the beginning of the question while the latter keeps looking at the picture. After a delay in responding, B starts a candidate answer quantifying the possible cost (ten), but at this point A looks toward B and provides an answer. At line 13, A modifies the answer provided at line 5 by claiming that to enter that place he did not pay anything. Even though A starts the turn with a pitch reset and emphasizes the word “nothing,” A does not look at B. At line 15, B produces an other-initiation of repair by asking for confirmation (and displaying disbelief at the claim that A did not pay anything). B starts turning toward A during the silence at line 14 and therefore starts the initiation of repair already looking at the addressee. B holds his gaze toward A until the end of line 19, where he is not initiating repair but rather pushing for a “yes”/“no” answer to his question at line 15 (“eh” can be used as a tag in Italian questions). At line 21, B asks for confirmation of the last claim about the free entrance to the building, but this time he is looking at the pictures and looks toward B only at line 23, when he produces a closing remark that accounts for the occurrence of the question at line 2 (his possible interest in visiting the place represented in the picture).

With Extract 1, we have illustrated, among other things, that even in situations where objects relevant for activities at hand are present, speakers tend to look at recipients while asking questions. With the following extract we want to show what happens when two participants are just talking about future plans and are not dealing with relevant objects in the surrounding environment. Extract 2 shows:

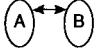


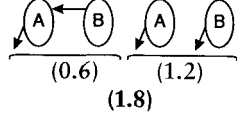
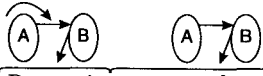
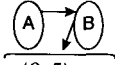
1. Speaker and recipient tend to look up mid-question during the question that initiates a new course of action (see also line 2 in Extract 1).
2. During the course of action, speakers tend to look from beginning to end of each question.
3. Recipients sometimes look away before completion of the question (presumably to plan the answer to the question), though not during every question.

In Extract 2, the participants are two female friends sitting at a table (at a 90-degree angle), and the conversation has just started. We focus on the gaze behavior during lines 1, 3, 6–7, 12, 16, and 20.

(2) Italian 2GGOSS-stasera 00:15

- 01 →B:  *.hh A(h)l' l o r à stas(h)era cos' e' che fate*
 S(h)o tonight what is that do.2s
.hh S(h)o t(h)onight what are you doing
- 02 A:  *Eh andiamo a Villa Chiara =*
Eh go.1p to Villa Chiara
Eh we go to Villa Chiara =
- 03 →B:  *= Ma a che ora vi incontrate*
 But at which hour you meet.2p
 = But at what time do you meet
- 04 A:  *Vado alle nove e mezza dalla Gloria.*
 Go.1s at nine and half to Gloria
 I go to Gloria's (house) at nine thirty.
 05 ((long side sequence about Gloria's recent guests))
- 06 →B:  *Nove mezza ma andate subito a Villà Chiara*
 Nine and half but go.2p immediately to Villa Chiara
 Nine thirty but do you go immediately to Villa Chiara

- 07 →B: $\frac{\text{A} \leftrightarrow \text{B}}{\text{alle nove e mezza?} =}$
 At nine and half
 at nine thirty? =
- 08 A: $\frac{\text{A} \leftrightarrow \text{B} \quad \text{A} \leftrightarrow \text{B}}{= \text{Con- le dieci con gli altri.}}$
 With the ten with the others
 = With- at ten with the others.
- 09 $\frac{\text{A} \leftrightarrow \text{B}}{(0.4)}$
- 10 A: $\frac{\text{A} \leftrightarrow \text{B}}{\text{Ci incontriamo.}}$
 Cl. meet.1p
 We meet.
- 11 $\frac{\text{A} \rightarrow \text{B}}{(0.6)}$
- 12 →A: $\frac{\text{A} \rightarrow \text{B} \quad \text{A} \leftrightarrow \text{B}}{\text{Ci [v i e n i?]}$
 Cl. come.1p
 Do you come there? ((to Villa Chiara))
- 13 B: $\frac{\text{A} \rightarrow \text{B} \quad \text{A} \leftrightarrow \text{B} \quad \text{A} \rightarrow \text{B} \quad \text{A} \leftrightarrow \text{B}}{[Io esco alle nove_ (0.5) ah io 'pero' se arrivo]}$
 I get.1s out at nine oh I but if arrive.1s
 [I get out at nine_ (0.5) oh but if I come
- 14 $\frac{\text{A} \leftrightarrow \text{B}}{\text{arrivo a mezzanotte eh}}$
 arrive.1s at midnight eh
 I arrive at midnight eh
- 15 $\frac{\text{A} \leftrightarrow \text{B}}{(0.6)}$ ((A displays shocked facial expression))

- 16 →A: 
Alle nove esci?
 At nine get.1s out
 At nine you get out?
- 17 B: 
Eh
 Eh
 Y[es ((confirming something already said))
- 18 A: 
[Cazzo
 Dick
]Shit ((and then A nods, looking down))
- 19 
 (0.6) (1.2)
 (1.8)
- 20 →A: 
Domani sera che fai?
 Tomorrow evening what do.2s
 Tomorrow evening what do you do?
- 21 
 (0.5)

At line 1, the recipient starts looking at the speaker before the latter turns toward her; by the time the question at line 3 starts, both participants are looking at each other, and only the recipient withdraws from mutual gaze before completion of the question. The same happens during the question at lines 6–7. All three questions can be taken to be requests for information by B about A's plans for the night, probably meant to get an invitation by A. At line 12, A does indeed invite B to go out with her and her friends, and, again, we see that the speaker is looking at the recipient from the beginning to the end of the question, while the recipient (B) looks toward the speaker mid-turn when she has already started producing the turn at lines 13–14. The question at line 16 is not only a repair initiation but also a way of displaying surprise and disbelief (as can be seen from the

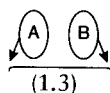
co-occurring facial expression) and in this case both participants are looking at each other from beginning to end of the turn. The course of action reaches its completion at line 18 and both participants look down toward the table. At line 20, however, A starts a new sequence and asks B about her plans for the following day. Here we see that the speaker starts looking at the addressee only after the beginning of the question and the recipient does not look at the questioner at all. Also in this case (see questions in Extract 1), no remedial action is taken by the speaker to obtain the recipient's gaze back and the recipient is not looking at any other relevant objects on the table.

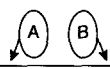
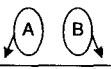
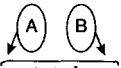
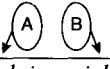
These two extracts, which represent patterns observed throughout ten hours of dyadic interactions in Italian, suggest that many of the claims about the organization of gaze in interaction previously proposed do not apply to Italian data. In particular, if we focus on questions, it appears that there is much less gaze mobility throughout the question than compared to previous general claims about gaze in any utterance,¹⁰ and there is no particular sensitivity to the lack of recipient gaze (differently from C. Goodwin 1980, 1981). Moreover, speaker gaze appears to be much more predictable and relevant during questions than recipient gaze.

If we then look at two typical patterns of gaze during questions in Tzeltal and Yéli Dnye, we can see that while in the former case participants can produce entire sequences without ever looking at each other (see Extract 3), in the latter case participants can be seen to sustain gaze toward each other during questions without any withdrawal (see Extract 4).

Extract 3 is taken from an interaction between two middle-aged Tzeltal sisters. Both participants are sitting, side by side on a bench, with their backs against a wall, approximately two meters away from each other. They are looking straight ahead, away from each other's faces. B has been telling A about a relative of theirs, who had come supposedly to the village for a meeting but had gone straight back to town without waiting for the meeting. Lines 2 and 4 are our focus.

(3) Tzeltal 2005_v5A_Q19 11:53

01  (1.3)

- 02 →A: 
ma'yuk li' y-ak' junta tz'i bi
 not.at.all here 3E-give meeting PT TAG
He didn't hold a meeting at all here then eh?
- 03 B: 
ma'yuk laj
 not.at.all QUOT
Not at all, reportedly
- 04 →A: 
ju'uk
 no
No?
- 05 B: 
ma'yuk laj jalaj ix
 not.at.all QUOT last.long ACS
He did not stay long (enough) at all, reportedly.

During both questions, both participants keep looking away from each other and do not turn to each other even during the production of the answers. This contrasts quite clearly with what can be observed in interactions in our dataset for Yélí Dnye, where, in dyadic interactions, participants seem to look at each other most of the time. Extract 4 is taken from an interaction between two Rossel men who are sitting face-to-face, less than one meter apart. A is complaining about the fact that some individuals who owe him money have not repaid him yet. The gaze behavior at lines 4, 6, and 7 is our focus.

(4) Yélí r03_v19_s2 00:13:53

- 01 A: *awêde nga anî tóó, u pyiné*
 today here 1sFUT.PUNCT sitting 3POSS quest
d:a ngmêê, ngmepe
 1sIMMPAST.PUNCT exchange.PROX paying.back
I am here today, to search for it ((the shell money)), to pay it back
- 02 A: *law nkwodo até nî kmungo.*
 law on.top just 1sIMMPAST.PUNCT put.inside
I took it up to the law (told the Peace Officer)

- 03 (0.4)
- (A) ↔ (B)
- 04 →B: $\frac{n:uu\ ye \quad ngmepe}{\text{Who that.near.Addr paying.back}}$
Who is paying it back (to you)
- (A) ↔ (B)
- 05 $\frac{(0.4)}{(0.4)}$
- (A) ↔ (B)
- 06 →A: $\frac{:êê}{uh}$
 uh?
- (A) ↔ (B)
- 07 →B: $\frac{n:uu\ ye \quad ngmepe}{\text{Who that.near.Addr paying.back}}$
Who is paying it back (to you)
- (A) ↔ (B)
- 08 $\frac{(0.4)}{(0.4)}$
- (A) ↔ (B)
- 09 A: $\frac{kî \quad pini \quad dy:eemi \quad knî}{\text{that.distal man.spec man.and.brother-in-law AUGM}}$
That man and his brothers-in-law

In this extract, we can see that participants sustain mutual gaze throughout the three questions: a request for information, its repetition, and a repair initiation. Altogether, the participants sustain mutual gaze across silences and into the answer at line 9, showing the opposite pattern of what was shown in Extract 3. It is noticeable that not only in Italian but also in Yéfi Dnye a speaker can sustain gaze toward the addressee from the beginning to the end of the question, without looking away before uttering it or looking toward the addressee only while approaching the completion of the turn.

These extracts raise multiple questions. How representative are they of the common gaze patterns during question–answer sequences in each culture? Are the clear differences from prior

claims in the literature indicative of a different type of organization of gaze in interaction, at least in these three cultures? Are there cultures where participants tend not to look at each other at all or tend to look all the time? And if we believe Simmel's claim (1969) about the importance of mutual gaze for human sociality, what would be changed in the interactions and social relationships of human beings living in a culture that appears to minimize the occurrence of mutual gaze (e.g., Tzeltal)?

All these issues invite the development of a proper coding scheme and the collection of a larger sample to assess how many of the patterns here observed are still systematic in a larger dataset. For this purpose, we used extensive video recordings of natural conversation from these three cultures and developed a comparative coding scheme, as described below.

Data and method

The data we used for our comparative analysis of gaze behavior in interaction comes from a total of twenty-nine dyadic interactions¹¹ in three different languages: Italian, Tzeltal, and Yéî Dnye.¹² Italian is a Romance language spoken primarily in Italy, Tzeltal is a Mayan language spoken in Chiapas, Mexico, and Yéî Dnye is an isolate, presumably of Papuan origin, spoken on Rossel Island, Papua New Guinea. More precisely, each dataset has been collected in a specific part of the area where each language is spoken, and we believe the data are representative of the three different cultures, which are relatively homogeneous within each dataset.¹³ Figure 7.1 shows the location of the three cultures – as the geographical dispersion suggests, there has been no cultural contact between any of them, and thus any similarities in gaze pattern can be presumed to derive from universal tendencies or from systematic functions within an underlying shared interaction system.

The ten dyadic interactions in Italian were recorded with two cameras, one on each participant, while the ten interactions in Tzeltal and the nine in Yéî Dnye were recorded with one camera, but with an angle that allowed for a good view of both participants' faces. Twenty different individuals are included in the Italian dataset, seventeen in the Tzeltal one and eighteen in the Yéî Dnye one. The conversations recorded were ordinary and casual and not

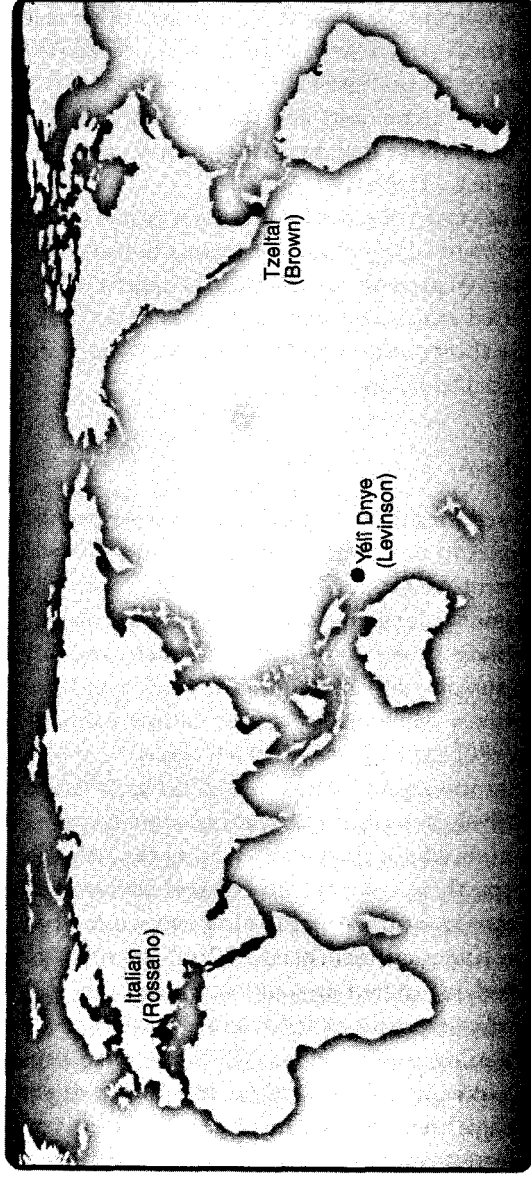


Figure 7.1 Location of three cultures

solicited by the researchers. The participants of each interaction knew each other, being either relatives, friends or acquaintances. The interactions analyzed were dyadic because the presence of just two participants simplifies issues such as next-speaker selection (see e.g., Lerner 2003) and who has been addressed by the speaker (Goodwin 1979). Specifically, in a dyadic interaction if one person is talking, the other person is the one addressed. This means that if the speaker looks at the addressee during a turn, this is not done in the service of disambiguation to show who is being addressed and who is being selected to speak next. This allows gaze, freed from an address function, to serve a range of other interactional functions.

This extensive database of interactions in the three cultures was sampled in a systematic way. Within each cultural sample, we selected roughly ten dyads and searched for question–response sequences until we had 300 such sequences for each cultural sample. By “question” we understood any utterance that functioned as an information soliciting action, regardless of whether it was in interrogative form or otherwise marked morphosyntactically, lexically or prosodically. For example, many “yes”/“no” questions in Tzeltal and Yéî Dnye are delivered in declarative format with falling intonation – they are recognizable as questions just because they appear to be statements about facts that are privileged information of the recipient’s, of the kind “You have a stomach ache” (cf. Labov and Fanshel’s 1977 “B-event statements”).¹⁴ Note also that we excluded requests for things other than information: We were interested only in utterances that required a verbal or visible communicative response, which could thus be coded as an “answer,” “nonanswer response” or missing response.

The question–response sequences collected in this way are not homogenous in function. Schegloff’s (1984) point is well taken: An utterance can be a question and, at the same time, much more besides. Still, it is by virtue of being the first pair part of an adjacency pair (cf. e.g. Sacks 1987; Schegloff 2007b; Schegloff and Sacks 1973), calling for a specific type of second pair part, that questions do the multifarious things they do. For this study we have focused on just three gross functions: requests for new information, requests for repair (e.g., for repetition or clarification), requests for confirmation (of previously established information or

presumed facts). The reason for distinguishing these is the different degree to which they push the ongoing business forward (i.e., different degrees of “progressivity”; (see Schegloff 2007b; Stivers and Robinson 2006), as opposed to invoking prior utterances or sequences. An other-initiated repair, for example, is a momentary hitch, occasioning the insertion of a sequence into whatever business is at hand – it is hoped and expected that completion of the repair sequence is immediate upon response, and work on the interrupted sequence can resume.

Question–response sequences have a number of advantages for this study focusing on gaze behavior. First, the category is “emic,” a category for participants – an unanswered question is a potential matter for complaint. Second, like in all adjacency pairs, there is turn-transition relevance (cf. Sacks *et al.* 1974) immediately after the first pair part; moreover, normally a question is delivered as a simplex unit, a single turn-constructive unit in the great majority of cases (see Extracts 1–4). Third, the two parts, question and response, potentially form a complete sequence, and again in the majority of cases actually do so. Thus over the course of a question–response sequence, two turns have been traversed, the former speaker has become a ratified recipient, and the former recipient a ratified speaker, and, in addition to speaker change occurring, a whole sequence has been jointly engendered. These are all important loci where gaze has been thought, or might be thought, to play a crucial role in organizing interaction. We should add that most if not all the prior claims and rules about gaze in interaction did not specify whether they would apply only within a specific culture or to specific actions. They are usually presented as applying generally to every single turn at talk whenever two people are talking to each other. If we find that those claims do not hold for at least one type of action (questions) and for one or more cultures, the generality and universality of such claims can be considered disproved. This would further confirm the importance of restricting claims in terms of the domain under investigation and, even more importantly, the necessity of moving beyond the “turn level” and including the details of the actions performed and the sequential organization of participants’ talk as important variables that affect gaze in interaction, as proposed by Rossano (2005; 2006a; 2009).

We coded for the participant role (e.g., speaker vs. recipient), the primary action being implemented with the question, the question type, and the occurrence or not of a visible and/or verbal response. We then developed a refined coding for gaze for both speaker and recipient. We wanted to capture, *inter alia*, absence of gaze at interlocutor and its possible cause, full gaze, unilateral vs. mutual gaze, and gaze at crucial loci within the first pair part. Details about the coding can be found in the appendix. The inter-reliability coding performed on 40 percent of the gaze coding for the Tzeltal data showed a Cohen Kappa statistic $k = .875$, S.E. = 0.03, $p < 0.0001$ (Cohen 1960) which is considered an almost perfect agreement (Landis and Koch 1977).¹⁵

Results

In this section, we report the main outcomes of the statistical analyses, commenting briefly on the import of each finding but leaving aside extended discussion until the next section.

First, let us compare speaker gaze and recipient gaze during the question utterances, asking whether speakers or recipients gaze at their interlocutor at least once during the question (from here on we refer to these as Q-speakers and Q-recipients, to remind the reader that we are referring to speakers and recipients of questions only). A first surprise is that, as made clear in Table 7.1 and Figure 7.2, in each language *Q-speakers look at Q-recipients more often than vice versa*. In particular, speakers gaze at addressees in 65.7 percent of the questions in Tzeltal, in 73 percent in Italian, and in 79.7 percent in Yéli Dnye. Recipients gaze at speakers in 42.3 percent of questions in Tzeltal, in 63.3 percent in Italian, and in 67.3 percent in Yéli Dnye. This is unexpected because it contrasts with all the above-mentioned works that found that participants

Table 7.1 *Instances of Q-speaker and Q-recipient gaze toward other participant, by language*

	Tzeltal	Italian	Yéli Dnye
Speaker	197 (65.7%)	219 (73%)	239 (79.7%)
Recipient	127 (42.3%)	190 (63.3%)	202 (67.3%)

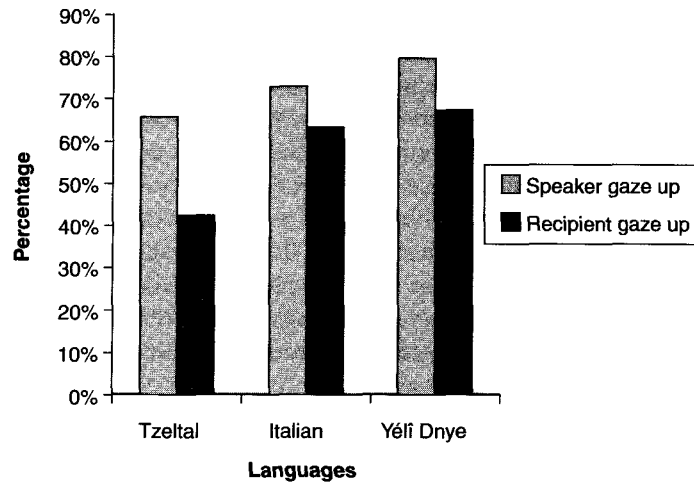


Figure 7.2 Gaze toward other participant, by language

generally look more while listening than while speaking (see section “Earlier Work on Gaze in Interaction”), while it confirms what was shown in Extracts 1 and 2 in Italian. We therefore carefully checked the statistical reliability of more speaker than recipient gaze in each language through logistic regression analysis.¹⁶

Table 7.2 shows the results of the logistic regressions run for each language in which the standard error has been corrected for the clustering of the data by interaction.¹⁷ The difference between speaker and recipient gaze behavior is statistically significant for each language.

Table 7.2 shows that when a Tzeltal participant acts as a Q-speaker, he or she is 2.61 times more likely to gaze at the addressee than when he or she acts as a Q-recipient. It shows that when an Italian participant acts as a Q-speaker, he or she is 1.57 times more likely to gaze at the addressee than when he or she acts as a Q-recipient. It finally shows that when a Yéli Dnye participant acts as a Q-speaker, he or she is 1.90 times more likely to gaze at the addressee than when he or she acts as a Q-recipient.

We turn now to consider possible cross-cultural differences in gaze behavior. Figure 7.3 compares the gaze behavior of Q-speakers and recipients across the three languages. It shows that, in both, Q-speaker and recipient role participants look at each other more

Table 7.2. Logistic regression analysis predicting gaze toward other participant in relation to role (Q-recipient as reference group), by language

Predictor	β	S.E. β	p	Odds ratio	95% C.I.
Role Tzeltal (speaker)	0.96	0.17	0.000	2.61	1.86, 3.66
Constant	-0.31	0.28	0.023		

Note: Model Evaluation: Wald $\chi^2(1) = 30.53, p < 0.001$

Predictor	β	S.E. β	p	Odds ratio	95% C.I.
Role Italian (speaker)	0.44	0.15	0.002	1.57	1.17, 2.09
Constant	0.55	0.30	0.073		

Note: Model evaluation: Wald $\chi^2(1) = 9.37, p < 0.01$

Predictor	β	S.E. β	p	Odds ratio	95% C.I.
Role Yéli (speaker)	0.64	0.23	0.006	1.90	1.21, 2.99
Constant	0.72	0.32	0.276		

Note: Model Evaluation: Wald $\chi^2(1) = 7.68, p < 0.01$

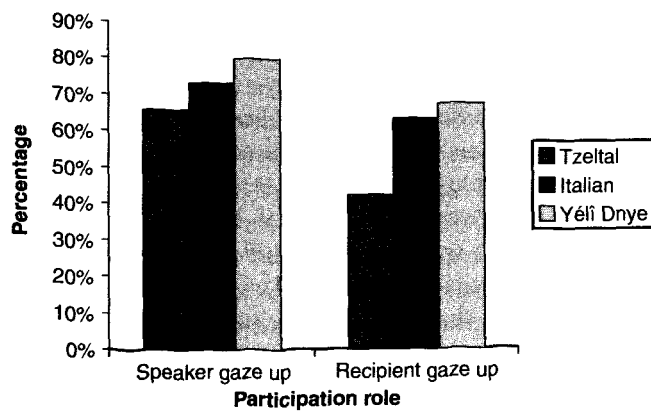


Figure 7.3 Gaze behavior across the three cultures clustered by participation role

Table 7.3. *Logistic regression analysis predicting Q-speaker gaze toward Q-recipient in relation to language (Italian and Tzeltal as reference group)*

Predictor	β	S.E. β	p	Odds ratio	95% C.I.
Tzeltal (speaker)	-0.35	0.40	0.385	0.71	0.32, 1.54
Yéli (speaker)	0.37	0.29	0.212	1.45	0.81, 2.59
Constant	0.99	0.25	0.000		

Note: Model evaluation: Wald $\chi^2(2) = 4.85$, $p = 0.09$

Predictor	β	S.E. β	p	Odds ratio	95% C.I.
Italian (speaker)	0.35	0.40	0.385	1.41	0.65, 3.09
Yéli (speaker)	0.72	0.35	0.039	2.05	1.04, 4.05
Constant	0.65	0.30	0.036		

Note: Model evaluation: Wald $\chi^2(2) = 4.85$, $p = 0.09$

in Yéli Dnye than in Italian and more in Italian than in Tzeltal, although the significance of these differences in frequencies will be shown to vary depending on the participation role.

Let us first take the question of speaker gaze: Are Q-speakers more likely to gaze at their recipients during questioning in one of the languages compared to the others? If we compare Italian and Yéli Dnye, the answer is no: Taking Italian as the comparison language, there is no significant difference between Q-speakers' gaze behavior in Italian and Yéli Dnye (see Table 7.3, top half) and equally no significant difference between Q-speakers' gaze behavior in Italian and Tzeltal. However, when we take Tzeltal as the comparison language, there is a significant difference in Q-speaker gaze between Tzeltal and Yéli Dnye (see Table 7.3, bottom half). Tzeltal Q-speakers are significantly more economical with their gaze to recipients than Yéli Dnye Q-speakers. These latter results, however, should be taken with extreme caution, as the model evaluation shows that the Wald statistic is not significant. This means that the predictor (language) should be rejected as a good predictor of the outcome (Q-speaker gazing at Q-recipient). Language in general does not significantly predict speaker gaze, at least for these three languages.

Table 7.4 . Logistic regression analysis predicting Q-recipient gaze toward Q-speaker in relation to language (Italian and Tzeltal as reference group)

Predictor	β	S.E. β	p	Odds ratio	95% C.I.
Tzeltal (recipient)	-0.85	0.40	0.035	0.43	0.19, 0.94
Yéli (recipient)	0.18	0.42	0.677	1.19	0.52, 2.74
Constant	0.55	0.29	0.062		

Note: Model evaluation: Wald $\chi^2(2) = 7.36$, $p < 0.05$

Predictor	β	S.E. β	p	Odds ratio	95% C.I.
Italian (recipient)	0.85	0.40	0.035	2.33	1.06, 5.16
Yéli (recipient)	1.03	0.41	0.013	2.79	1.24, 6.27
Constant	-0.30	0.27	0.273		

Note: Model evaluation: Wald $\chi^2(2) = 7.36$, $p < 0.05$

In short, Table 7.3 shows that Italian Q-speakers' gaze behavior does not differ significantly from Tzeltal and Yéli Q-speakers' gaze behavior, while Tzeltal and Yéli differ significantly but in a model that suggests language does not properly predict differences in Q-speaker gaze behavior.

Let us now turn to the gaze behavior of the recipient during questioning. Once again, there is no significant difference between Italian and Yéli gaze behavior, now considering Q-recipients (Table 7.4, top half). But both Italian and Yéli are strikingly different from Tzeltal in this regard: The difference between Q-recipient gaze behavior in Tzeltal and the other two languages is significant (see Table 7.4, bottom half) and so is the model used to test these differences (see model evaluation of Table 7.4).

Table 7.4 shows that Yéli Dnye Q-recipients' gaze behavior is not significantly different from Italian Q-recipients' gaze, whereas Tzeltal Q-recipients' gaze behavior is significantly different from Italian and Yéli Q-recipients' gaze. In particular, Italian and Yéli Q-recipients are respectively 2.33 times and 2.79 times more likely to look at the speaker during a question than a Tzeltal Q-recipient is.

In sum, Q-speakers' gaze behavior is fundamentally similar across the three languages.¹⁸ Although there is a significant

difference between the two extremes (Tzeltal and Yélí Dnye), Italian stands in the middle and is not significantly distinct from either. Moreover, the evaluation of the model shows that language is not a good predictor of differences in speaker gaze. All three languages show a significantly greater proportion of speaker gaze compared to recipient gaze during questioning. On the other hand, gaze behavior by the Q-recipient shows more fundamental differences in the case of Tzeltal: Now Italian and Yélí Dnye show similar, relatively high patterns of gaze by the Q-recipient to the speaker, while Tzeltal shows significantly less.

These results suggest a strong tendency to uniformity in speaker gaze behavior, despite the literature (reviewed above) that suggests that speaker gaze in general varies radically across cultures. In contrast, there is a clearer cultural difference in the way in which gaze is deployed by recipients, and the implication is of course that gaze plays a differential role across cultures as a signal of active reciprocity.

If we now look at the occurrence of mutual gaze between Q-speaker and Q-recipient, that is, whether mutual gaze is engaged sometime during the course of asking a question, we find that mutual gaze occurs in just over 50 percent of questions in Italian and Yélí Dnye, but in only 33.7 percent of questions in Tzeltal (see Table 7.5). Once again, this aligns Italian and Yélí Dnye as high-gaze cultures, with Tzeltal as a low-gaze culture, along the lines shown in Brown and Levinson's previous comparative work on Tzeltal and Yélí Dnye (2005; Levinson and Brown 2004).

Table 7.6 shows that Tzeltal is significantly different from Italian and Yélí Dnye in terms of the occurrence of mutual gaze during a question, while Italian and Yélí Dnye do not differ significantly.

We noted earlier that some of the gaze literature (e.g., C. Goodwin 1980; Goodwin 1981) suggests that as a rule speakers check that the recipient is attending, expecting to find a recipient gazing back at that point. This predicts of course that mutual gaze should occur in nearly all cases in which the speaker looks at the recipient, and where not, remedial action (e.g., getting attention by restarting an utterance) might be undertaken. The numbers for our data do not support any such rule, at least for question-answer sequences. Consider that in approximately 20 percent of questions in Italian and Yélí Dnye, and in more than 30 percent of questions in Tzeltal,¹⁹ the

Table 7.5. *Instances of mutual gaze by language*

	Tzeltal	Italian	Yéli Dnye
Mutual gaze	101 (33.7%)	159 (53%)	173 (57.7%)

Table 7.6. *Logistic regression analysis predicting mutual gaze in relation to language (Italian and Tzeltal as reference group)*

Predictor	β	S.E. β	p	Odds ratio	95% C.I.
Tzeltal (MG)	-0.83	0.41	0.042	0.44	0.20, 0.97
Yéli (MG)	0.18	0.42	0.672	1.19	0.53, 2.69

Note: Model evaluation: Wald $\chi^2(2) = 6.37$, $p < 0.05$

Predictor	β	S.E. β	p	Odds ratio	95% C.I.
Italian (MG)	0.83	0.41	0.042	2.29	1.03, 5.06
Yéli (MG)	1.00	0.43	0.020	2.72	1.17, 6.35

Note: Model Evaluation: Wald $\chi^2(2) = 6.37$, $p < 0.05$

speaker is gazing at the recipient and the recipient does not gaze back before completion of the turn (see Table 7.7), and no remedial action is taken (see Extracts 1 and 2 for further qualitative evidence).

We turn now to consider the distribution of gaze across finer coding categories. As mentioned, questions can implement rather different actions, and our coding scheme characterized these according to their “progressivity,” distinguishing information-seeking questions from repair initiation questions and from confirmation-seeking questions. Table 7.8 and Figure 7.4 show the distribution by language of these main classes of action. The residual category “Other” includes different actions such as offers, invitations, requests for further clarification, topic profferings, etc., that were implemented through the questions – they did not amount to a large number of instances for any given action for each language.

There are slight differences in the occurrence of these different types. For example, Yéli Dnye has more requests for information

Table 7.7. *Questions in which speakers look at recipients and recipients do not look back, by language*

	Tzeltal	Italian	Yéli Dnye
Speaker gaze, no recipient gaze	96 (32%)	59 (19.7%)	66 (22%)

Table 7.8. *Distribution of actions performed by questions, by language*

	Tzeltal	Italian	Yéli Dnye
Request for information	107 (35.7%)	126 (42%)	143 (47.7%)
Other-initiated repair	34 (11.3%)	43 (14.3%)	53 (17.7%)
Request for confirmation	115 (38.3%)	68 (22.7%)	84 (28%)
Other	44 (14.7%)	63 (21%)	20 (6.6%)

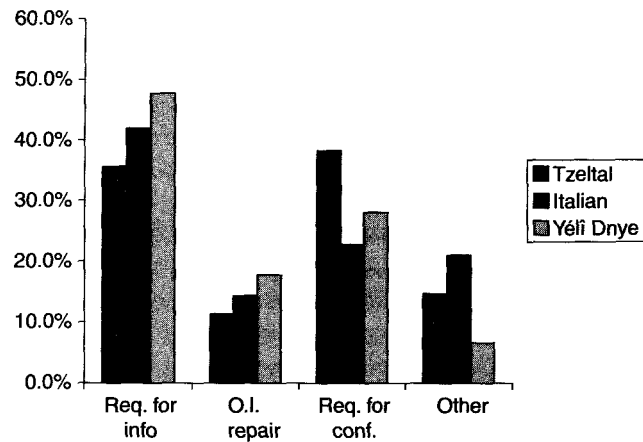


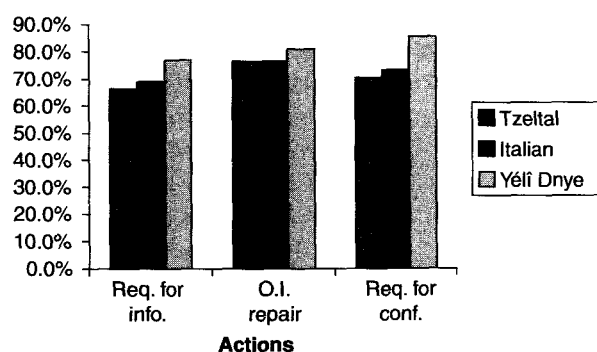
Figure 7.4 Distribution of actions by languages

and other initiation of repair than the other two languages, while Tzeltal has more requests for confirmation.

Again, the possibility arises that these differences in the frequencies of action types could account for some of the cross-cultural differences in gaze. If, for example, gaze is especially associated with requests for information and repair-initiating questions, given

Table 7.9. *Q-speaker looking at Q-recipient, by action and by language*

	Tzeltal	Italian	Yéli Dnye
Request for information	71 (66.4%)	87 (69%)	110 (76.9%)
Other-initiated repair	26 (76.5%)	33 (76.7%)	43 (81.1%)
Request for confirmation	81 (70.4%)	50 (73.5%)	72 (85.7%)

**Figure 7.5** Distribution of percentages of each action in which the Q-speaker looks at the addressee, by language

that there are more of these in Yéli Dnye than in Tzeltal, this could explain the distribution of gaze shown in Figure 7.3. However, Table 7.9 and Figure 7.5 show that this is not the case. For each action, Q-speakers look more in Yéli Dnye than in Italian and more in Italian than in Tzeltal, although the difference between Q-speaker's gaze behavior in Italian and Tzeltal is minimal, exactly as shown in the general distribution.

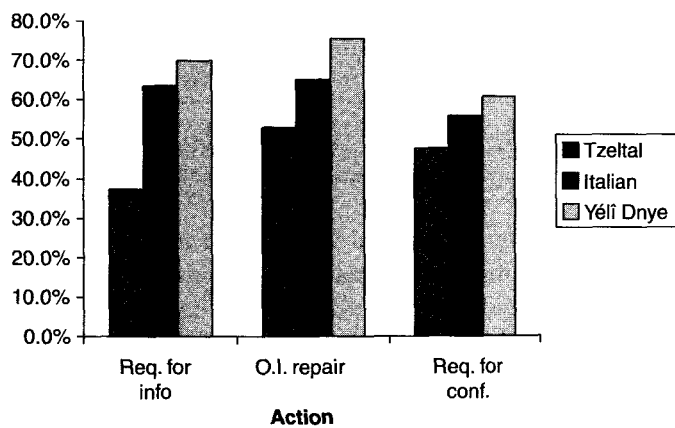
It is noticeable here that, of the three actions, in each language requests for information are produced less often with speaker gaze than are other-initiations of repair and requests for confirmation. Considering Rossano's (2005, 2009) claim that gaze behavior is mainly organized around larger structures than turns (sequences and courses of action) and that most of the shifts in gaze direction should occur at the beginning and end of these structures and around self-repair and speech disfluencies (on this point cf. Beattie, 1979), the differences in the amount of gaze per action

could be accounted for by their sequential position. The fact that other-initiations of repair do not occur at the beginning of a sequence or course of action, and the same usually holds for requests for confirmation, whereas requests for information can occur in first position, may account for this difference. Another general fact emerging from all three cultures is that questions initiating repair are especially likely to involve both speaker and recipient gaze. One possibility is that gaze here reinforces that the Q-speaker, though speaking, is committing to a more attentive engagement as a listener in the conversation. The speaker of the repair initiation is asking the recipient to repair his or her prior talk because of some problem, and the speaker of the repair question can ask to delay the progressivity of the talk by projecting a full reciprocity once the repair is produced. Moreover, if speaker gaze can exert pressure for a response, this pressure can be particularly valuable given the social cost of asking a prior speaker to repair his or her own prior talk and the additional social cost of not being able to provide an appropriate response in case of troubles in hearing or understanding. Alternatively, one may take other-initiation of repair to convey disaffiliation, non-alignment or some other problematic stance toward the prior utterance; it may therefore be a kind of interactionally “loaded” moment, comparable to challenges, which are usually delivered while looking at the addressee. Independently of which is the favored account, it is clear that delaying the progressivity of the conversation and asking for repair is an interactionally problematic action, and the occurrence of more gaze by both speakers and recipients might be related to this potential problematicity.

We turn now to consider Q-recipient gaze within each action type. Table 7.10 and Figure 7.6 show that, for each action, the distribution of Q-recipient gaze follows the general distribution of recipient gaze as shown in Figure 7.3. This means that Yélfí Dnye and Italian Q-recipients look more during each action than Tzeltal speakers do, and the difference between Italian and Yélfí Dnye is less marked than the difference between these two languages and Tzeltal. It is noticeable that in each language other-initiation of repair tends to get gaze more often from the Q-recipient than the other two actions. Moreover, in Italian and Yélfí Dnye, requests for confirmation are the actions that are least likely to elicit gaze from

Table 7.10. *Q-recipient looking at Q-speaker, by question type and by language*

	Tzeltal	Italian	Yéli Dnye
Request for information	40 (37.4%)	80 (63.5%)	100 (69.9%)
Other-initiated repair	18 (52.9%)	28 (65.1%)	40 (75.5%)
Request for confirmation	55 (47.8%)	38 (55.9%)	51 (60.7%)

**Figure 7.6** Distribution of percentages of each action in which the Q-recipient looks at the Q-speaker, by language

recipients, while in Tzeltal it is requests for information that are the actions least likely to get gaze from the recipient.

As we noted at the outset, questions are perceived as first pair parts of adjacency pairs, making a response by the recipient the relevant next action. This is the case independently of whether they are initiating a sequence, they are inserted in it, or they are working as post-expansion. Table 7.11 shows how many of our questions got proper answers, responses that would not count as proper answers (e.g., “I don’t know, maybe”) or no response at all. The results show that in each language proper answers are produced in response to questions two-thirds of the time or more. Moreover, the number of questions that receive no response at all is minimal (on average, in 12 percent of cases).²⁰ It is clear that overwhelmingly questions get responded to (on average, in 88 percent of cases; see Table 7.12).

Table 7.11. *Distribution of response types by language*

	Tzeltal	Italian	Yéli Dnye
No response	15 (5%)	45 (15%)	50 (16.7%)
Non-answer responses	41 (13.7%)	71 (23.7%)	52 (17.3%)
Answers	245 (81.7%)	184 (61.3%)	198 (66%)

Table 7.12. *Distribution of responses to questions, by language*

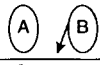





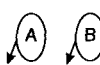

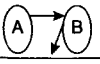


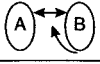


	Tzeltal	Italian	Yéli Dnye
No response	14 (4.7%)	45 (15%)	50 (16.7%)
Response	286 (95.3%)	255 (85%)	250 (83.3%)

Gaze per se does not, nor did we expect it to, account for the occurrence of an answer or a nonanswer response, as action types, question format, and many other factors can come into play here. There is, however, an interesting correlation between lack of Q-recipient gaze (and of mutual gaze as a consequence) and the fact that an answer does not get a response. If we take Q-recipient gaze to be a means for displaying reciprocity, we should expect that when Q-recipient gaze is lacking there should be some interactional consequence. Given that here we are looking at questions, the most notable consequence would be problems in responding to a question. We are here considering only the most macro display of “trouble” in responding: i.e., not responding at all. It is clear that other micro-consequences can occur and would be worth examining in future work. Notice that we are not expecting that every time the recipient is not looking there will be no response but rather that absence of Q-recipient gaze can be a good predictor of upcoming trouble in responding, or, more specifically, of no response.

Extract 5 (as well as Extract 1) provides a qualitative example of cases when the Q-recipient is not looking at all during the question and there seems to be a problem and a response is lacking. In Extract 5, two male Italian undergraduate students are preparing for an exam. B is asking A questions and is holding the notes they have used to prepare for the exam. B has already passed the exam while A has to take it the following day. The topic being discussed

is the kinds of diseases that one should report to the officials while working as a veterinarian. We focus on the questions at line 1, 3, and 5.

(5) ITALIAN 2PEXAM-sapere (42:49)

- 01 →A:  
Ma lei vuol sapere ste cose qui?
 but she want.3s to know these things here
Does she want (us) to know these things here?
- 02 
 (1.6)
- 03 →A: 
Eh?
 eh
Eh?
- 04   
 (1.0) (0.2) (0.4)
 (1.6)
- 05 →A:   
Lei son ste cose qua [che vuole sapere?]
 she are these things here that want.3s to know
Are these the things [that she wants (us) to know?]
- 06 B:   
[Lei vuole sapere] quelle
 she want.3s to know those
[She wants (us) to know those
- 07 
'segnalazioni immediate' = si' questo e' importante
 signaling immediate yes this is important
'inform immediately' = yes this is important

In all three questions the recipient is not looking at the speaker but at the notes (although the answer to the questions is not in the notes). The question at line 1 is not answered, and A pursues it at lines 3 and 5, until he finally gets an answer at lines 6–7 (and

Table 7.13. *Distribution of questions that do not get responded to in which the recipient does not look at the speaker*

	Tzeltal	Italian	Yéî Dnye
No recipient gaze	9/14 (64.3%)	23/45 (51.1%)	32/50 (64%)

B looks toward A while producing it). Notice that even though B answers, the formulation of the answer is not straightforward (the “yes” comes only mid line 7). B was not looking at A during the questions and it is clear that he had problems dealing with the question(s). See also Extract 1 for similar evidence.

If we focus purely on the numbers from our dataset, we see that in Italian and Yéî Dnye, the proportion of gaze absence by the recipients of the questions that are not responded to is higher than in the total of the questions (see Table 7.13).²¹

We can test whether lack of recipient gaze is a good predictor of lack of response by dividing the response possibilities into response vs. no response, as in Table 7.12. We tested this hypothesis by creating a model that takes into account other variables such as speaker gaze, recipient gaze, and language spoken (Table 7.14).

Table 7.14 shows that, in general, lack of Q-recipient gaze is a good predictor of lack of response after a question, while speaker gaze and language spoken are not (at least for this dataset).

Table 7.15 shows that lack of recipient gaze works differently in each language. It is a significant predictor of lack of response in Italian and Yéî Dnye, but not for Tzeltal. This means that while the proportion of no responses preceded by lack of Q-recipient gaze is significantly higher than for all questions in Yéî Dnye and Italian, this is not the case for Tzeltal.

These results are particularly relevant because they show that, in Italian and Yéî Dnye, Q-recipient gaze appears to be related to the doing of reciprocity, and, in this respect, the lack of it can predict possible upcoming trouble in terms of the occurrence of a response to the question. However, in Tzeltal, recipient gaze does not seem to have this function, and this fits with the general tendency for Tzeltal recipients to gaze less at the speaker than in the other two

cultures. This raises important issues about the general function of gaze as a display of reciprocity: It suggests that this role for gaze is not universal, and there must be other possible ways in which good reciprocity can be signaled.

All the results just outlined distinguish questions in which the participants looked at any time toward the other participant from those in which the participant never looks at the other. The coding scheme we had developed, however, was more specific, as it distinguished thirteen possible scenarios (six distinct locations for gaze for each of speaker vs. recipient, and the possibility of mutual gaze). Once these data are taken into account, the results are again surprising, as they contrast with claims by Kendon (1967) for a wider range of actions about when speakers typically look away and when they typically look at the recipient *within* the turn. Tables 7.16 and 7.17 show that, in each language, only in a small minority of questions do participants look up during the question if they were not already looking at its beginning. In particular, for Tzeltal Q-speakers, this happens in 10.7 percent of the questions, in Italian in 16.4 percent, and in Yéli Dnye in 12.3 percent (these percents are the sums of rows 4, 5, and 6 in Table 7.16). More specifically, if looking toward the recipient near the completion of an utterance invites speaker transition (see Kendon 1967), row 5 in Table 7.16 shows that in our question–answer data this happens very infrequently. For Tzeltal this happens in 7.7 percent of the questions, for Italian in 5 percent, and for Yéli Dnye in 5 percent.

Table 7.17 shows percentages for Q-recipients of gaze “immobility” within a question similar to those in Table 7.16 for

Table 7.14. *Logistic regression analysis predicting no response*

Predictor	β	S.E. β	p	Odds ratio	95% C.I.
No recipient gaze	0.61	0.25	0.015	1.84	1.12, 3.02
Speaker gaze	-0.31	0.23	0.191	0.73	0.46, 1.17
Tzeltal	-1.00	0.54	0.063	0.37	0.13, 1.06
Yéli	-0.29	0.41	0.481	0.75	0.33, 1.68
Constant	-1.78	0.35	0.000		

Note: Model evaluation: Wald $\chi^2(6) = 84.25$, $p < 0.00001$

Table 7.15. *Logistic regression analysis predicting no response if Q-recipient is not gazing, by language*

Predictor	β	S.E. β	p	Odds ratio	95% C.I.
No recipient gaze (Tzeltal)	0.11	0.54	0.842	1.11	0.39, 3.21
Constant	-3.00	0.42	0.000		

Note: Model evaluation: LR $\chi^2(2) = 0.40$, $p = 0.84$

Predictor	β	S.E. β	p	Odds ratio	95% C.I.
No recipient gaze (Italian)	0.70	0.33	0.031	2.02	1.07, 3.83
Constant	-2.03	0.23	0.000		

Note: Model evaluation: LR $\chi^2(2) = 4.61$, $p < 0.05$

Predictor	β	S.E. β	p	Odds Ratio	95% C.I.
No recipient gaze (Yéli)	1.59	0.33	0.000	4.92	2.58, 9.37
Constant	-2.29	0.39	0.000		

Note: Model evaluation: LR $\chi^2(2) = 25.22$, $p < 0.001$

Table 7.16. *Q-speaker gaze, by language*

	Tzeltal	Italian	Yéli Dnye
1. No gaze	103 (34.3%)	81 (27%)	61 (20.3%)
2. Gaze up all the time	146 (48.7%)	162 (54%)	187 (62.3%)
3. Gaze up at beginning, away before completion	19 (6.3%)	8 (2.7%)	15 (5%)
4. Gaze up on new referent	2 (0.7%)	8 (2.7%)	7 (2.3%)
5. Gaze up approaching completion	23 (7.7%)	15 (5%)	15 (5%)
6. Gaze up any other time	7 (2.3%)	26 (8.7%)	15 (5%)

Q-speakers. In particular, a Q-recipient looks toward the speaker's face after the beginning of a question in 15.4 percent of questions in Tzeltal, in 16 percent in Italian, and in 7.7 percent in Yéli Dnye (the sums of rows 4, 5, and 6 in Table 7.16).

Table 7.17. *Q-recipient gaze, by language*

	Tzeltal	Italian	Yéli Dnye
1. No gaze	173 (57.7%)	110 (36.7%)	98 (32.7%)
2. Gaze up all the time	63 (21%)	120 (40%)	162 (53.3%)
3. Gaze up at beginning, away before completion	18 (6%)	22 (7.3%)	17 (5.7%)
4. Gaze up on new referent	0 (0%)	4 (1.3%)	1 (0.3%)
5. Gaze up approaching completion	29 (9.7%)	14 (4.7%)	11 (3.7%)
6. Gaze up any other time	17 (5.7%)	30 (10%)	11 (3.7%)

These results contrast with the patterns claimed by Kendon (1967) to occur in English and suggest, as argued by Rossano for Italian (2005; 2009), that the utterance *per se* is not an adequate level for describing gaze behavior in interaction, as very little seems to happen to gaze direction in dyadic interactions during a single utterance.²²

Finally, we noticed that looking away, or better our coding “no gaze toward addressee” could actually refer to three different situations:

1. The participant is just looking down or away but at nothing in particular.
2. The participant is looking away because of the content or the delivery of the question (e.g., someone is pointing and looks in the direction of the point, or is talking about an object present in the surrounding environment and looks at it).
3. The participant is involved in a competing activity (e.g., eating, weaving, drawing on the sand).

We therefore monitored whether the lack of gaze toward the addressee could be considered “motivated” or not and whether this alternative focus was related to the talk or to a competing activity. Tables 7.18 and 7.19 show the great cross-cultural difference in terms of what else is going on while talking and how often people’s eyes get redirected toward different semiotic entities.

Tables 7.18 and 7.19 show that, while in our Italian interactions Q-speakers and Q-recipients can be seen to be looking away for a possible reason around 80 percent of the time, this happens around 50 percent of the time in Yéli Dnye interactions and

Table 7.18. *Questions in which lack of Q-speaker gaze toward Q-recipient motivated by question content or competing activity.*

	Tzeltal	Italian	Yéli Dnye
Total motivated	6/103 (5.8%)	70/81 (86.4%)	33/61 (54.1%)
Q. delivery/content	5/103	16/81	20/61
Other activity	4/103	62/81	21/61

Note: The sum of “gaze orientation motivated by question delivery/content” and “gaze orientation motivated by competing activity” does not correspond to the “Total motivated gaze orientation” because in some instances participants are conflating the two possible motivations, e.g., if someone points to an object in a picture while the competing activity is looking at pictures or if someone is drawing on the sand and uses deictics in his or her speech to refer to the object just drawn.

Table 7.19. *Questions in which lack of Q-recipient gaze toward Q-speaker motivated by question content or competing activity*

	Tzeltal	Italian	Yéli Dnye
Total motivated	8/173 (4.6%)	85/110 (77.3%)	42/98 (42.9%)
Q. delivery/content	4/173	20/110	10/98
Other activity	4/173	77/110	39/98

only around 5 percent of the time in Tzeltal interactions. This means that in the culture where most of the time participants do not look at each other (Tzeltal) this is not because they are looking in the direction of a pointing finger or because they are usually involved in competing activities. Rather, they tend to look down, toward their hands or legs or in the middle distance but not at a specific object or in a recognizable direction. As will be explained in the following section, speakers of Tzeltal and speakers of Italian inhabit very different material worlds, and the interactions were recorded mainly at home in Italian, and mainly outside the home in Tzeltal and outside in Yéli. It is remarkable that the “nonlooking” at the other participant is mainly a clear looking at something else in the Italian interactions, and half of the time in the Yéli interactions, but almost always looking down or mid-distance in Tzeltal. This might be another cultural difference in terms of displaying attentive reciprocity. If, in an Italian conversation, one is expected to be looking at the speaker most of the time, then not looking

at the speaker is accountable and should be “motivated”. In contrast, if the default of reciprocity is not looking at the speaker, then ostensive focus toward other objects or activities might mean that the recipient is not listening to the speaker at all. So by not looking at anything else, Tzeltal recipients might simply be displaying full commitment to attending to the conversation, while the same behavior enacted by an Italian participant would appear to display complete uninterest toward the conversation. In other words, speakers in these two cultures are dealing with the same problems (full reciprocity and commitment to listening) using opposite visible displays. These behaviors follow directly from the nature of preferred gaze behavior in conversation within their respective cultures.

To sum up this section, the following general patterns of gaze in question–answer sequences across the three cultures emerged:

1. Q-speakers gaze at recipients in about two-thirds of the questions, but Q-recipients’ gaze is more variable and less frequent.
2. Q-speakers gaze least on the most progressive actions.
3. Q-recipients gaze most on the least progressive actions.
4. Mutual gaze is far from assured during such sequences and never occurs in much more than half of the cases.

There are, however, some striking cross-cultural differences, most clear in the Tzeltal vs. Yelî Dnye contrast: Here, both Q-speakers and Q-recipients gaze significantly more in Yelî Dnye than in Tzeltal. In the Tzeltal case, gaze is not a good indicator of active reciprocity, and it plays no role as a predictor of whether a response will be forthcoming. Moreover, nonlooking at the other participant usually means very different types of orientation in the three cultures. In particular, participants do very different things with their eyes if they do not orient them toward the other person: They are mainly oriented toward competing activities in Italian interactions, they are oriented toward competing activities or to locations motivated by question delivery only half of the time in Yelî Dnye interactions, and they are mainly oriented down or mid-distance in Tzeltal interactions.

These differences cannot be accounted for in terms of different patterns in the uses of questions within the three cultures.

Reasons for, and consequences of, cultural variability in gaze behavior in interaction

Brown and Levinson (2005; Levinson and Brown 2004) have noted, based on many years of observation, that differences in gaze behavior between Yéli Dnye and Tzeltal speakers correlate with differences in observed seating patterns. Broadly speaking, Yéli Dnye speakers of Rossel Island prefer to sit face-to-face within reach of each other, while Tzeltal speakers of Tenejapa prefer to sit side by side or at an angle.²³ In our samples of interaction, these patterns are indeed replicated. There are, of course, additional cultural constraints here – Rossel Islanders do not invite people of other families into their homes, and they have no chairs, consequently all interactions were filmed standing, squatting or seated on the ground in the open air. The Tenejapan home is also relatively private, and visitors would normally be seated on benches or small chairs on a patio or enclosed public area: The recordings are therefore filmed either outside or in the less private parts of the home. The Italian interactions were filmed inside the home, where seating is normally arranged around a table for face-to-face interaction.

Our recordings show that participants speaking Italian and Yéli Dnye prefer sitting face-to-face during conversation, while participants speaking Tzeltal prefer sitting side by side.²⁴ However, as can be seen in Figures 7.7–7.9, in all three cultures participants can be seen sitting side by side or face-to-face and engaging mutual gaze independently of their body position.

The fact that in each culture we can observe both side by side and face-to-face configurations, and in both cases participants can be seen to engage mutual gaze, suggests a certain caution in distinguishing these cultures in terms of typical or normative seating configurations. Nevertheless, in our sample in Italian and Yéli Dnye, in most of the dyadic interactions participants sit face-to-face, whereas in Tzeltal they sit side by side.²⁵ These different seating configurations would suggest that in Tzeltal looking at each other is a more marked act (see, e.g., Schegloff 1998c on body torque), given that it is often necessary to turn one's head to look at the other participant (Brown and Levinson, 2005; Levinson and Brown, 2004), and this, of course, is consonant with the less frequent gaze in interaction. On the other hand, we should bear in mind



Figure 7.7 Italian dyads

that in our dataset Tzeltal *speaker gaze* is not significantly different from Italian speaker gaze, and this shows that there are distinct limitations on the ecological determinism of gaze behavior.

The early literature on human kinesics also throws considerable doubt on any theory of ecological determinism of gaze behavior.



Figure 7.8 Tzeltal dyads



Figure 7.9 Yélf Dnye dyads

These studies showed that participants tend to arrange themselves according to the interactions they plan to have (Ekman and Friesen 1974; Kendon 1977; Sommer 1959, 1962). While it is true that the physical structure of the environment constrains interactional positioning (Goffman 1971; Goodwin 1981), these

physical arrangements tend to directly reflect the preferred cultural patterns. In short, we would argue that the Tzeltal seating patterns, for example, directly reflect the preference for more limited, more controlled gaze behavior, in just the same way that the unfurnished and thus more unconstrained sitting arrangements of Yéfi Dnye speakers favor the eyeball-to-eyeball interaction that is the dominant mode.

So what does account for the cultural differences? Brown and Levinson (2005; Levinson and Brown 2004) note that the contrast between Tzeltal and Yéfi Dnye is partly based on different practices for the display of reciprocity. For example, during extended turns at talk such as a telling, Tzeltal recipients are expected to respond at regular intervals with significant verbal material, repeating parts of the immediately prior utterance (Brown 1979: Chapter 4, 1998, 2007). In contrast, Yéfi Dnye speakers have an extended inventory of visual feedback signals, including facial gestures specialized for assent, surprise, continuer function, and so forth (Levinson 2007). The Yéfi system presupposes the likelihood of gaze (or at least close peripheral vision), while the Tzeltal system seems built to assume its absence.

The low-key role that gaze plays in Tzeltal interaction implies, as mentioned, other effective displays of reciprocity. Extract 6 shows how repetitions can signal reciprocity and understanding of what has been asked in a much more precise way than is observable in Italian and Yéfi Dnye.²⁶ It shows a “yes”/“no” (polar) question–answer sequence in Tzeltal. This kind of question particularly allows an answer to be constructed by repetition with minimal modification – a repeat rather than “yes” is in fact the default for an affirmative response to a “yes”/“no” question (unlike what was shown by Raymond [2003] for conversations in American English); the Tzeltal words for “yes” have much more restricted functions (Brown 1998, in press).

(6) Tzeltal T002020, 13:13

01 AMT: *kuxul-0 to wan s-tukel i (.) muk'ul jme'tik i?*
 living-3A still perhaps 3E-self DEIC big Mrs. DEIC?
 Is “big Mrs.” ((honorific for “your mother”)) still alive?

02 CH: *kuxul-0*
 living-3A
 She's alive.

Extract 6, together with Extract 3, illustrate how repeating part of the polar question in the answer is an appropriate and typical way of responding in Tzeltal.²⁷

If one probes further for why Tenejapan Tzeltal speakers are relatively gaze aversive, there is little doubt that it has to do with politeness and decorum: Tzeltal interactors will even turn their backs, or hide behind a structure, if the conversational matter is in any way face-threatening (e.g., in the case of substantial requests – see Brown 1979 for details). Darwin (1872) was particularly interested in gaze aversion as a symptom of self-conscious shyness and shame, associated especially with the appropriate demeanor of Victorian women. From this, it seems to acquire the semiotics of self-denigration, which figures in many honorific systems (see Brown and Levinson 1987). Such an account predicts gaze aversion, especially in dispreferred responses, which needs further checking in the data. If the semiotics of gaze aversion has a “natural” source, we may expect this to hold in all three cultures.

Implications for general patterns of gaze in interaction

As already mentioned, one of our main cross-culturally stable findings is that Q-speaker gaze is significantly more expectable than Q-recipient gaze in each culture. This was not predicted by the prior literature, where, on the contrary, the assumption has been that generally recipients are expected to gaze, and speakers may well only glance at recipients somewhere in the course of the utterance, e.g., toward its end (e.g., Duncan and Niederehe 1974; Goodwin 1981; Kendon 1967). Two further points are in order. Some of these earlier claims are phrased in terms of *rates* of gaze, i.e., gaze over time, while our data has been coded as gaze over turns (question or response). Nevertheless, since we have found that if there is gaze it tends to be more or less constant over these units (see Tables 7.16 and 7.17), our findings too imply a temporal preponderance of speaker gaze.

This constancy of gaze during the asking of a question also contrasts with another general claim, made most forcefully by Kendon (1967), according to which speakers tend to give quick glances at recipients while recipients tend to hold their gaze toward the speaker. Our results show that only rarely will a participant start

glancing at the other and then look away and maybe glance back again during a question.²⁸ Where speaker gaze is momentarily averted this seems to be occasioned by gaze pointing for the other participant, or, in the case of recipient gaze, by the need to redirect the eyes toward the object the other participant is talking about. Gaze redirection in these instances – looking away from the recipient – is not related to the management of turn-taking.

The general lack of mobility in gaze direction within a question has implications for the proper level of organization for gaze in interaction. A question typically consists of a single turn constructional unit (TCU). This suggests a general equivalence between our unit “question” and a turn at talk, and, indeed, 90 percent of the questions of the Italian corpus, and 77 percent of those in the Tzeltal and in the Yéli Dnye corpora, constitute a turn by themselves. It follows straightforwardly that gaze cannot be playing an internal function within the turn, e.g., by warning of turn transition (as Duncan and Fiske 1977; Duncan and Niederehe 1974; Kendon, 1967 had supposed). For the same reasons, C. Goodwin’s (1980; 1981) “recipency” rules for American English interactions do not seem to hold for question turns in these three languages. Recollect that, according to these rules, the recipient’s gaze should be toward the speaker by the time the speaker looks at the recipient, failing which the speaker can solicit such attention through, for example, self-repair. Table 7.7 has already shown that in 20–30 percent of questions in our samples, the speaker looks but the recipient fails to look back, and clearly the speaker has not extended the turn to successfully achieve mutual gaze. In Italian, for example, in only four out of fifty-nine (or 7 percent) questions of this kind do sound stretches, cut-offs or pauses occur.²⁹ If we look at the thirty-eight Italian questions in which the speaker is gazing from the beginning but the recipient looks up only later, we find a cut-off or a sound stretch in only seven (and only three seem to have any timing correlation to the return of recipient’s gaze toward the speaker).

The difference between Goodwin’s findings and ours may be due to a number of factors, in particular related to the sampling of the data and the details of the coding. For example, we looked only at question sequences, while Goodwin’s data was coded intact and no particular attention was paid to the specific actions that the participants were implementing with their turns at talk

(C. Goodwin 1980). Still, it is possible that Goodwin's account in terms of speakers' restarts eliciting recipient gaze has captured a practice that is especially prominent in American English.³⁰ In any case, what is clear is that neither the importance of obtaining the recipient's gaze before the completion of the turn nor the general normativity of this behavior can be observed in our samples.

What role could the restriction to question sequences play in our data? Clearly, by being first-pair parts of adjacency pairs, questions imply turn transition, and in a dyadic situation they also imply to whom the next turn belongs. If gaze here plays no addressee-selection role, it may especially play the role of exerting pressure for a response (Rossano 2006b, 2009; Stivers and Rossano in press). It is possible too, that gaze in questions is especially devoid of turn-transition functions, since recipients will know, as soon as they detect a question, that on completion an answer is immediately relevant.

Despite finding little evidence for a role for gaze in regulating turn-taking in our three cultures, there does seem to be a correlation between the variation in gaze behavior within a question and the sequential position of the question. This trend can be seen reflected in Table 7.9, where requests for information, which are mostly sequence initial, are accompanied by the *least* amount of speaker gaze. Requests for repair and confirmation, which deal with prior business, are associated with *more* speaker gaze. This same pattern is reflected in recipient gaze, at least as regards repair (Table 7.10): There is more recipient gaze during repair initiation, a class of action that is by definition not in first position.

These trends have been further explored in the Italian data, which has been coded also in terms of the sequential position of the question, by which we mean, for example, whether it initiates a new course of action or not (see Schegloff 2007b). Fifty-nine of the Italian questions were starting a course of action, which is to say less than 20 percent.³¹ The question here is whether in this sequential position the gaze behavior is comparable to the one observed for the total of the questions, when their sequential position was not taken into account. We want to focus in particular on whether participants tend to start courses of action already looking at each other or not, which is to say whether they tend to look up only during the sequence-initiating question. The Italian Q-speakers look at Q-recipients before the beginning of turns that start new courses

of action only in 27.1 percent of the cases, while Q-recipients do so only in 25.4 percent of the cases. In 42 percent of these fifty-nine questions the Q-speaker directs his or her gaze toward the recipient only during the course of the question and not before the beginning. In 35.6 percent of these fifty-nine questions initiating a course of action, the recipient directs his or her gaze toward the speaker only during the course of the question, not before the beginning. If these latter percentages are compared with the general proportion of gaze shifts toward addressee during the question shown in Tables 7.16 and 7.17 (16.3 percent for speakers and 16 percent for recipients), it is clear that there is more “mobility” in terms of gaze when initiating a course of action than when questioning in the middle of a course of action (Rossano 2009). These numbers therefore confirm what was already shown in Extracts 1 and 2. Moreover, these numbers suggest that Italian speakers do not regularly start new courses of action only after they have secured gaze from the recipient. Actually, they look at the addressee before starting speaking only a fourth of the time in this specific sequential position.

We have here claimed that participants will tend to look up during the question rather than before the beginning of it mainly during questions that initiate new courses of action. However, if we focus, for example, on Q-recipients in Italian conversations, we can see that out of the forty-eight questions in which Q-recipients look up during the question and not before, twenty-seven do not occur at the beginning of a course of action. Why in these cases is the recipient not looking at the speaker from before the beginning of the question (as appears to be the case in most of the non-initial questions) but instead looks up only during the question?

Two clear interactional patterns can be observed in the Italian data. The first one unfolds as follows. Some of these questions are initiating a post-expansion of the sequence at a point when the sequence has been treated as complete by the other participant. In other words, the speaker who initiates the post-expansion re-opens a finished sequence. The recipient of the post-expansion is the person who had brought the sequence to possible completion. As mentioned earlier, sequence completion typically involves withdrawal of gaze (Rossano 2005), and the recipient will therefore have withdrawn his or her gaze before the occurrence of the question. When the other participant launches the post-expansion, the recipient

abandons any other activity and reorients gaze toward the current speaker before completion of the question. Extract 7 shows this pattern. A and B are a couple and they are having lunch. A has announced that he is going to borrow a motorbike from his grandfather but he is worried about all the additional expenses. B reassures him about the expenses and promises to lend him her helmet for few months so that he can delay the expense for it. The target is the gaze behavior during the question at line 8.

(7) Italian:2PLUNCH1-casco 14:14

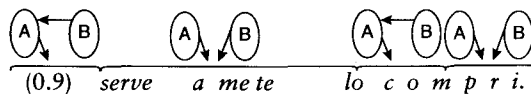
01 B: *Io il casco te lo presto (0.6) e poi::*
I the helmet you it lend.1s and then
I will lend you the helmet (0.6) and the::n

02 *prima o poi te lo compri*
before or after yourself it buy.2s
sooner or later you will buy one

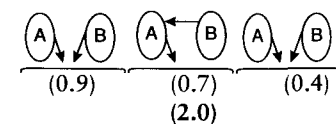
03 (0.5)

04 B: *Perche' per questa estate ti presto quello integrale,*
Because for this summer you lend.1s that full face
Because for this summer I will lend you the full face one,

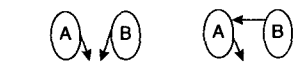
05 *quando arriva l'inverno che l'integrale*
when arrive.3s the winter that the full face
when winter comes the full face one



06 (0.9) *serve a me te lo compri.*
Serve.3s to me yourself it buy.2s
(0.9) is needed by me you buy one for yourself.



07 (0.9) (0.7) (0.4)
(2.0)



08 →A: *Quanto costa un casco?* POST-EXPANSION
How much cost.3s a helmet
How much does a helmet cost?


09 B: *Non lo so*
Not it know.1s
I don't know

B's turn between lines 1 and 6 is closing the topic of general expenses for the motorbike and the issue of the cost of the helmet by promising A to lend him her helmet until the following winter (the interaction occurs at the beginning of April). At the end of line 6, both participants are not looking at each other (see Rossano 2005), and for two seconds there is silence. Both participants are oriented toward the dishes in front of them on the table. At line 8, A asks a question about the cost of the helmet, and, by doing so, he reopens the sequence, starting a post expansion, to which B responds with a non-answer response. The sequence is then further expanded.

The second pattern of shift in recipient gaze during a question unfolds as follows. The person that has been coded as a recipient for the question was actually speaking in overlap or displaying an intention to initiate a turn at talk by producing a long in-breath when the speaker of the question starts his or her turn. The beginning of the question initiates in overlap and the recipient of the question orients toward the speaker only at the moment in which he or she abandons his or her overlapping turn and acts as a recipient. Extract 8 shows this pattern (see also line 12 of Extract 2 for additional evidence). A and B have met to prepare for an exam, and B is supposed to ask A questions to check whether he is ready for the exam. Our target is the gaze behavior at line 6.

(8) Italian:2PEXAM-zonose 40:35

- 01 B: *Cioe' cosa hai letto della Marelli*
I mean what have.2s read by Marelli
I mean what did you read by Marelli
- 02 A: *Ho letto gli appunti della:dell' Ilaria che erano*
have.1s read the notes of of Ilaria that were.3p
I read the notes by:by Ilaria that were
- 03 *fra fotocopie e:hh e articoli di legge*
among Xeroxes and and articles of law
among Xeroxes and .hh and law articles
- 04 (1.8)

05 A:  *Cioe' so:: [so le classificazioni,]*
I mean know.1s know.1s the classes,
I mean I kno::w [I know the classes,]

-
- 06 → B: [*Cioè le zoonosi in Italia principali quali sono*
I mean the zoonoses in Italy main which are
[I mean which are the main zoonoses³² in Italy
- 07 (0.5)
- 08 A: *Le zoonosi in Italia?*
The zoonoses in Italy
The zoonoses in Italy?
- 09 (0.4)
- 10 B: *Eh*
Eh
B: **Eh**

B's request for information at line 1 is responded to by A at lines 2 and 3. After a silence of almost two seconds, A starts talking again, providing further specification of what he knows and therefore what B can ask him questions about. However, immediately after the beginning of line 5, B, who is looking at some notes he is holding in his hands, starts talking as well and asks A a possible exam question. This is followed by a repetition of part of line 6 that initiates repair at line 8, which is confirmed by B, and the sequence continues with A's tentative answer to B's question. If we look at the gaze of the participants, we can see that while B keeps looking at his notes throughout the entire question at line 6, A, who was looking away toward his right side, turns toward B as soon as the first two words in B's turn are produced. A, therefore, turns toward B as soon as he hears B talking in overlap and abandons the turn that he was producing soon after.

This shows that once the sequential environment of the question is taken into account, some further order is observable. In particular, it shows that the beginning and ending of sequences and courses of action are the most vulnerable environments – in Italian at least – in terms of sudden shifts in gaze direction, and it also accounts for those instances in which the shift in gaze is not due to the sequential position of the question but rather to a parallel shift from speakership to reciprocity that had to occur because of overlapping speech.

Conclusions

It is clear that gaze plays a delicate and complex role in social interaction. In this paper we have explored this conversational role mainly through the crude instrument of descriptive statistics. We have done this primarily because we have here been pursuing similarities and differences between conversational practices in unrelated cultures. A statistical approach can firmly establish the existence of distinct practices in the utilization of gaze, practices that have only partly been observed in qualitative analysis. If, for example, we focus just on Extracts 3 and 4, we can immediately notice the importance of having grounded their representativeness in a larger corpus. While being representative of a large number of questions in Tzeltal and Yéli Dnye, Extracts 3 and 4 only represent a minority of cases in each language. Indeed, mutual gaze (as shown in Extract 4) occurs in only half of the questions in Yéli Dnye and is sustained from beginning to end of the question in even fewer cases. In more than 65.7 percent of questions in Tzeltal, the speaker looks at the addressee, and the recipient looks in 42.3 percent of the cases. This means that the number of instances in which neither participant looks during a question (as shown in Extract 3) would necessarily be a minority. Exposing the extremes, even if recurrent and not isolated cases, could risk distracting us from a proper reconstruction of what empirically appears to be the most general pattern in a culture. The use of large corpora, in this sense, is necessary if the goal is to develop a comparative analysis of the systematicity of specific practices across different cultures.

By proceeding in this way, we have indeed found distinct cultural practices, especially in the relative lack of use of gaze as an indicator of engaged reciprocity in Tzeltal. We have also noticed alternative “home positions” for the eyes when a participant is not looking at the other’s face: down, toward hands or legs or mid-distance for Tzeltal participants, mainly toward objects or places motivated by question delivery for Italian participants, and a bit of both for Yéli Dnye participants. We know from observation that there are also other distinct practices that could be culturally specific, for example the use of gaze to “point” to unseen, even distant, entities in Yéli Dnye (Levinson 2007). All these practices

clearly affect the “accountability” and semiotic relevance of specific gaze orientations in conversation and merit further examination to establish their interactional consequences.

But of at least equal importance are the general findings that hold across all three cultures and thus are candidates for general interactional properties. First, during questions, it is the Q-speaker rather than the Q-recipient who is more likely to be gazing. As pointed out repeatedly, this is at odds with prior generalizations about the role of gaze in conversational practice in general, where its functions have been presumed to be largely a display of reciprocity and attentiveness. Second, the dominant pattern is with gaze being fixed throughout the turn, and thus it cannot play a systematic role (in the question context at least) as a turn-transition cue, or as a cue that participant role is switching. Third, the findings in all three languages are consistent with a detailed qualitative analysis of gaze in Italian (Rossano 2009), which shows that gaze is tied into sequence initiation and sequence completion rather than into the turn-taking system directly. We therefore think it likely that this observation too has general application across cultures.

While our study has distinct limitations, especially because of its restriction to question sequences and the relative lack of detailed sequential analysis (at least that we can report on here), it is nevertheless clear that the standard accounts for the role of gaze need modifying either in general or at least with regard to question sequences in particular.

Whichever account is preferred, it is clear that our understanding of the systematicity of gaze behavior in interaction has been affected. The most notable piece of news is probably the fact that Q-speaker gaze behavior seems to be much more similar across languages than Q-recipient gaze behavior. In this sense, ethnographic descriptions that describe lack of eye contact and very brief glances could well be partially correct but perhaps only as descriptions of typical recipient behavior. The difference in gaze behavior observed between Tzeltal, Italian, and Yéllí Dnye strongly challenges the view that looking at the speaker’s face would always be the default gaze behavior for a recipient. Nonetheless, the nonuse of gaze as a reliable indicator of reciprocity in Tzeltal can be shown to require some substitute system, which in Tzeltal seems to be

provided by the repetition response system (Brown and Levinson 2005; Levinson and Brown 2004). This study therefore confirms that generic conversational functions reliably invoke machinery that will handle them (Schegloff 2006).

There are, however, a series of open questions that emerge from our first empirical pass through the data. What are the functions of speaker gaze in dyadic interaction? How is reciprocity displayed and are reciprocity cues somehow systematically organized and ranked? How do we account for a system in which Q-recipients look less than Q-speakers and yet in more than 40 percent of the cases? Is there something special about “questions” that affects gaze deployment in a very specific way?

It is clear that much more fine-grained analysis of gaze behavior in interaction is needed. Action types, at least at the level of the description that we chose, do not really account for the differences in recipient gaze behavior. It seems reasonable to invoke as an account the material world the participants are inhabiting, but we feel obliged to emphasize that Tzeltal participants are similar to the Italian when they speak but not when they listen to questions. The Tzeltal participants are inhabiting the same environment throughout the interaction and yet behave differently according to their participation role.

We are aware of the risks involved in isolating a specific practice (gaze in interaction) and trying to understand how this changes the interactional environment. However, the fact that gaze toward addressee is deployed very often during questions but not “all the time” or “never” in all three cultures here examined (and in all cultures examined in previous studies) suggests that its occurrence is systematic and interactionally managed and probably affects the interaction in significant and specific ways.

As the quotation by Lord Chesterfield at the beginning of this chapter suggests, gaze in interaction is a potent thing. And, as Darwin insisted, it has deep ethological roots and so is inevitably deployed in interaction in all cultures as a valenced indicator of visual attention – although, as we have shown, it is not always deployed in the same ways. Yet gaze in interaction has received relatively little attention in the past twenty years. We hope this chapter will encourage further investigations of how gaze is deployed

in different settings, different cultures, different participant roles, and in performing different actions.

Appendix A: Coding

For numerical purposes, we developed the following coding scheme. For the verbal component, we used the following five categories (bear in mind that all the interactions were dyadic, so the effective recipient is by default the nonspeaker).

- A. **SPEAKER/RECIPIENT:** who is the speaker of each question.
- B. **QUESTION TYPE:** “yes”/“no” (polar) question, wh-question or alternative question.
- C. **ACTION:** e.g., request for information, request for confirmation, other initiation of repair, offer, invitation, seeking agreement, etc.
- D. **RESPONSE:** answer (interactionally appropriate), nonanswer response (e.g., “I don’t know, maybe”), no response.³³
- E. **SEQUENTIAL POSITION:** initial position or further in the sequence (only in Italian).

We coded for thirteen different possible gaze configurations:


- 1. (a) The speaker does not look at the recipient at all during the question.
(b) The recipient does not look at the speaker at all during the question.
- 2. (a) Speaker looks at recipient from beginning to end and was already looking before the beginning of the question.
(b) Recipient looks at speaker from beginning to end, and was already looking before the beginning of the question.
- 3. (a) Speaker is looking at recipient before the beginning of the question but looks away during the question.
(b) Recipient is looking at speaker before the beginning of the question but looks away during the question.
- 4. (a) Speaker looks toward recipient during the introduction of a new referent in the question.
(b) Recipient looks toward speaker during the introduction of a new referent in the question.


5. (a) Speaker looks toward recipient on nearing completion of the question (last two words or last two syllables if question made of two words).
- (b) Recipient looks toward speaker on nearing completion of the question (last two words or last two syllables if question made of two words).
6. (a) Speaker looks toward recipient in any other position during the question.
- (b) Recipient looks toward speaker in any other position during the question.
7. The occurrence of mutual gaze at any time during the question turn. (We define mutual gaze as both participants looking at each other's face or eyes simultaneously.)


Finally, we coded for how often the lack of speaker or recipient gaze was motivated by:

1. the content of the question and its delivery (e.g., presence of deictics, pointing, talking about an object present in the surrounding environment);
2. a competing activity such as eating, weaving, drawing on the sand, etc.

Appendix B: Symbols for gaze orientation


 : Mutual gaze.


 : A looks away and B looks away.


 : A looks down oriented toward B. B looks away.

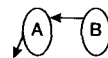
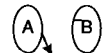
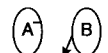
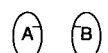
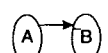
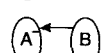
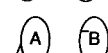
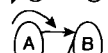
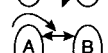



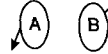
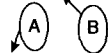

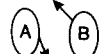
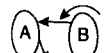
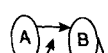
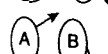
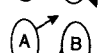
 : A looks away. B looks down oriented toward A.

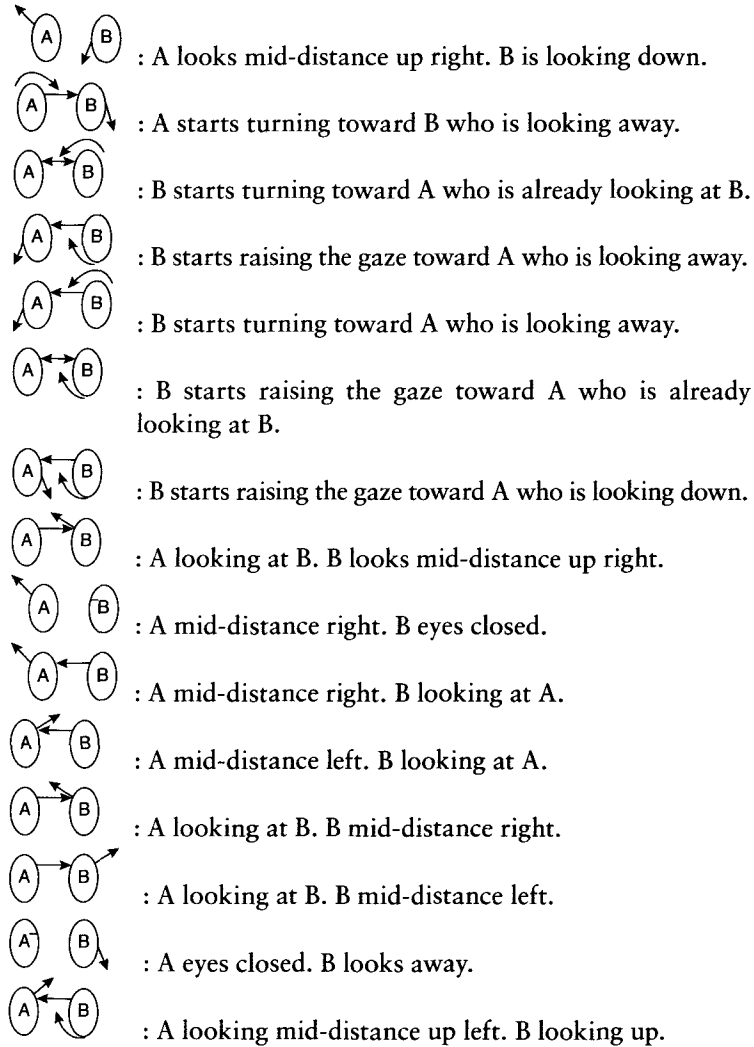
 : A and B are looking down in front of them.

 : A looks at B. B looks down.

 : A looks at B. B looks away.

 : B looks at A. A looks down.

-  : B looks at A. A looks away.
-  : A looks down. B eyes closed.
-  : A eyes closed. B looks down.
-  : A eyes closed. B eyes closed.
-  : A looks at B. B eyes closed.
-  : A eyes closed. B looks at A.
-  : A away. B eyes closed.
-  : A starts turning toward B who is looking down.
-  : A starts turning toward B who is already looking at A.
-  : A starts raising the gaze toward B who is looking down.
-  : A starts raising the gaze toward B who is already looking at A.
-  : A looks away B looks mid-distance up left.
-  : A looks away B looks mid-distance up right.
-  : A looks down B looks mid-distance up left.
-  : A looks down B looks mid-distance up right.
-  : B starts turning toward A who is looking down.
-  : A starts raising the gaze toward B who is looking down.
-  : A looks mid-distance up left. B is looking away.
-  : A looks mid-distance up left. B is looking down.
-  : A looks mid-distance up right. B is looking away.



Notes

1 Cited in Goodwin (1981: 62), after Goffman (1953).

2 “Participants utilize both their bodies and a variety of vocal phenomena to show each other the type of attention they are giving to the events of the moment, and, reciprocally, the type of orientation they expect from others. [...] [Engagement displays] permit those present to display

to each other not just speakership and hearership but differentiated attention to, and participation in, the talk of the moment” (Goodwin 1981: 124–125).

- 3 “To extract robust outcome-based conclusions about how physicians (or patients) should conduct themselves in specific moments in the flow of the medical encounter, it is important to find a meeting point between the two methodologies of coding and microanalysis [. . .]. In other words, beyond the intrinsic worth of an analytical framework responsive to very granular, individual moments in the physician–patient encounter, we need one that simultaneously supports coding at a broader level of granularity sufficient to reach beyond individual cases to generate findings at a statistical evidential standard” (Heritage and Maynard 2006: 8).
- 4 “Children at a very early age do not blush; nor do they show those other signs of self-consciousness which generally accompany blushing; and it is one of their chief charms that they think nothing about what others think of them. At this early age they will stare at a stranger with a fixed gaze and unblinking eyes, as on an inanimate object, in a manner which we elders cannot imitate” (Darwin 1872: 328).
- 5 Duncan and colleagues actually refer to shift in head direction as a turn-yielding cue but specify that this should be taken as a proxy for “eye direction” (Duncan and Fiske 1977: 211).
- 6 In a direct response to Beattie’s paper, Kendon (1978) argues that the data used by Beattie (dyadic conversations between students and their supervisors) was not comparable to the one used in his study (ordinary dyadic conversation between Oxford undergraduates), because of the asymmetric status of the participants and the formality of the situation, further indicating that the kind of interactional situation participants are dealing with may well affect the deployment of gaze.
- 7 There are, however, works (e.g., Erickson 1979; LaFrance 1974; LaFrance and Mayo 1976) that claim racial differences in this respect: Black Americans look more while speaking than while listening, while white Americans follow the opposite pattern.
- 8 In a footnote, (Goodwin 1981: 57) admits that even though he proposes this as a rule applying to turns in general, this pattern is not found in every turn at talk.
- 9 With the terms “courses of action accomplished through one or more sequences of talk,” Rossano refers to the fact that, to be considered completed, most actions require at least the occurrence of some sort of response or reaction by the other participant, and, therefore, an initiating action usually starts the development of a course of action produced by more than one participant. For example, the gist of a request

for information can be considered accomplished only if the other participant provides the information, and an offer is completed only if it is accepted or rejected and the thing offered is provided to the person to whom it had been offered. This means that the occurrence of an utterance and the action(s) that it implements opens the possibility (and sometimes it normatively expects) the occurrence of another set of utterances or actions that would allow the gist of the initiating action to reach a socially appropriate completion. This can be achieved in two turns or may require larger structures, though the participants' orientation toward completing the gist of the initial action remains the same.

- 10 Kendon is one of the few who distinguish between speaker gaze during "short questions" and speaker gaze during "long utterances"; he suggests that during short questions "[the speaker] will look steadily at [the recipient] while he asks his question, and where [the speaker] is asking a series of questions, unless he has to pause in thinking of the question, or unless he has to pause in formulating it." (Kendon 1967: 47).
- 11 Ten interactions in Italian, ten in Tzeltal, and nine in Yéli Dnye.
- 12 In some interactions in Tzeltal and Yéli Dnye, some children and/or other adults can be seen in the videos that capture the interactions. The interaction remains dyadic for current purposes as these bystanders are not addressed, they never intervene in the conversation, nor they are looked at. As we are not interested in the content of their conversation but rather in the gaze behavior of the participants, the presence of neglected bystanders does not have any significant impact on the gaze behavior of the dyad.
- 13 The Italian speakers were all natives of the region Emilia-Romagna, in the north of Italy, and all the Italian data were recorded in Bologna, Italy. The Tzeltal speakers all belong to the ethnic group of Tenejapans (c. 25,000 strong), and all were recorded in situ within their territory. The Yéli Dnye speakers are the exclusive inhabitants of Rossel Island, and form a small population of 4,000 souls, nevertheless divided into two dialect groups – the recordings are wholly of eastern dialect speakers. From each culture we had participants of both sexes; ages ranged from twenty to fifty years old for Italian and Yéli Dnye speakers and from thirty to sixty years old for Tzeltal speakers. The three authors are either native speakers (Rossano) or long-term fieldworkers (Brown, Levinson) in their respective communities reported on here.
- 14 Some of these could be understood as noticings, but often they address already-raised issues so are functioning as requests for confirmation or prods for expansion.

- 15 Rossano coded the linguistic/interactional aspects of questions for Italian, Brown for Tzeltal and Levinson for Yéli Dnye. Rossano coded for gaze the Italian and Yéli Dnye data (as well as 40 percent of the Tzeltal data, checking consistency of coding), while Brown coded for gaze the Tzeltal data.
- 16 Logistic regression is a statistical model used to predict outcome variables that are categorical (e.g., yes or no). In this specific case, if a specific participation role (e.g., being a speaker) predicts significantly better than the other (being a recipient) whether an individual will be looking at the other participant, then we can say that being a speaker rather than a recipient significantly affects the likelihood of the occurrence of gaze toward the other participant. In other words, participants look at each other differently depending on which participation role they have during a question. We are grateful to Tanya Stivers for help with the statistical analyses.
- 17 From now on, all logistic regression analyses reported here have to be considered corrected for the clustering of the data by interaction. This is meant to take into account the fact that different interactions (and in particular what the participants are doing within a specific interaction) could affect the general pattern more than others and therefore the general distribution could be the product of one or two biased interactions rather than a systematic pattern observable across multiple interactions.
- 18 Interestingly, in a small corpus of questions in not experimentally elicited dyadic English interactions, Beattie (1978: 13) reports that the speaker gazes at the addressee at least at some point during the question in thirty out of thirty-nine questions, which corresponds to 76.9 percent of the questions. Similarly, Kendon (1967: 45) reports that speakers look toward addressees in 31/41 (75.6 percent) of the questions of his corpus of British English dyadic interactions. While both are very small corpora, probably not fully representative of dyadic interactions in British English, it is remarkable that the percentage of speaker gaze during questions would be in between the ones found for Italian and Yéli Dnye, which are not significantly different from each other.
- 19 These percentages can be obtained by subtracting the instances of mutual gaze from the instances of speaker gaze.
- 20 Most of the questions that receive no response are directly followed by the same speaker elaborating or clarifying the question and therefore still pursuing a response. The relevance of a response is still present, and interactional contingencies can account for the lack of responses (Rossano in press).

- 21 For Tzeltal the recipient is not gazing in 57.7 percent of the 300 questions here considered, in Italian in 36.7 percent, and in Yéfi Dnye in 32.7 percent.
- 22 There is no doubt that in dyadic conversations there are instances in which gaze direction can vary within one utterance, and this is usually related to the activities at hand and what is going on in the interaction (moreover, specific actions can require a very specific gaze deployment). What we are saying is that during questions in these three cultures we do not see much gaze mobility, and, therefore, there is at least one domain and three cultures in which prior general claims about gaze behavior in any turn at talk do not hold.
- 23 We should emphasize here once again that there are a number of distinct social groups who speak Tzeltal, with distinct customs; our generalizations here are about Tenejapans.
- 24 This matches previous claims by Brown and Levinson (2005; Levinson and Brown 2004). However, the fact that alternative sitting configurations are observable within the same samples as well as the rather small number of dyadic interactions for each culture analyzed here suggest caution in terms of generalizations.
- 25 It is not always clear whether participants have chosen one configuration because of a general preference for that seating configuration or because of external factors such as presence of benches, preference for sitting in the shade, surrounding noise, etc.
- 26 See for a comparison the following example in American English, recorded in a medical interaction (Boyd and Heritage 2006: 158):
01 Doc: Is your mother alive,
02 Pat: No: .
- 27 This repetition-as-affirmation default has been shown to apply in a number of languages, not only within the Mayan family but also in completely unrelated languages (e.g., Irish, Welsh, Finnish, Estonian).
- 28 See row 3 of Tables 7.16 and 7.17 for instances in which a participant is looking at the addressee before the beginning of the question and looks away before completion of it. It never happens more than 6–7 percent of the time in any of the three languages, and in some configurations (e.g., speaker gaze in Italian) it is even rarer.
- 29 Moreover, the fact that there is a sound stretch, a cut-off or a pause in the question does not mean *per se* that they have been produced to elicit gaze back, as issues such as self-initiation of repair could be in play here.
- 30 There are a few cases in our data where a self-repair may play a similar role to that in American English.

- 31 As expected, most of them were requests for information (44/59, 74.6 percent) with the remaining ones performing different actions such as offering or doing a topic proffer, but clearly not initiating repair.
- 32 A zoonosis is a disease that can be transmitted to humans from other vertebrate animals.
- 33 We coded as responses both visible and verbal responses. A head nod or a head shake in response to a polar question was coded as an answer, exactly like pointing to an object on the table in response to a question such as “where did I put my notes?” Shoulder shrugs or similar gestures whose meaning could not be clearly established were instead coded as non-answer responses. “No response” means that no verbal or visible response was provided.