

Gaze in music making

Functions of gaze in orchestra rehearsals and chamber music lessons

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Abstract

The paper argues for the importance and richness of gaze communication in two different musical settings: orchestra rehearsals and chamber music lessons. Of particular interest are the role and functions of gaze within orchestra rehearsals and chamber music lessons, focusing on the relationship between the institutional setting, participants' spatial orientation, the presence of the score, and gaze behaviour. The theoretical framework for this study is Multimodal Conversation Analysis. While previous research within this approach primarily considers gaze direction and shifts for turn-taking and participation roles, the present study extends its scope to include various eye movements and expressions, such as closing, widening, squinting, or squeezing eyes – especially used by conductors in orchestra rehearsals. Key questions addressed include the strength of gaze in both settings as a contextualization resource for participation roles and interactional purposes and its use to perform other diverse actions, such as conveying emotional states or structuring the interaction. Through these inquiries, the study seeks to deepen the understanding of the multifaceted role of gaze in musical-instructional interactions and its implications for conductor-musician(s) and professor-student(s) dynamics.

Keywords: multimodal conversation analysis, gaze behaviour, forms and functions of gaze, participants' orientation in space, joint attention, musical settings



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1 Introduction

The present contribution investigates the role and functions of gaze in two different musical settings: orchestra rehearsals and chamber music lessons. The focus is on the link between the (institutional) setting, the participants' orientation in space, the presence

of the score and participants' gaze behaviour. The study aims to examine the sequential unfolding of different types and functions of participants' gaze when used during instructional activities and sequences. Methodologically, this study is situated within the framework of Multimodal Conversation Analysis. In most Conversation Analytical research, if gaze is investigated in interaction, the parameters taken into account are almost exclusively gaze direction and gaze shifts, especially for turn-taking and the negotiation of participation roles (cf. e.g., Goodwin C. 1980; Stivers/Rossano 2010; Rossano 2012; Auer 2018; Weiß 2020). The present paper takes this analytical focus as a starting point and includes – following Poggi et al. (2020) – also other ways to use eyes, such as closing eyes, widening eyes, squints eyes, squeezed eyes, but also frowning and raising eyebrows – especially employed by conductors in orchestra rehearsals. The authors stress the investigation of the conductor's gaze during musical interaction by including “several different ways to use eyes, each consisting of a particular pattern of gaze actions and conveying a specific meaning to performers” (Poggi et al. 2020: 4). The hypothesis is that gaze does produce a specific lexicon, covering all the meanings a conductor may need to convey during a rehearsal (cf. Poggi 2002; Poggi et al. 2020; Poggi/Ansani 2022). In their lexicon of the conductor's gaze, Poggi et al. (2020: 5) identified different purposes of gaze, e.g., an interactional function, if gaze is used to request attention, or a technical function, if the action of raising eyebrows is employed to ask for a piano (cf. also Poggi/Ansani 2022). In the present paper, it will be investigated if such functions, i.e., if the lexicon of the conductor's gaze is extensively applicable to orchestra rehearsals and chamber music lessons. Put differently, it will be scrutinized if the frowning of the conductor or the professor does mostly mean ‘play louder’ (cf. Poggi/Ansani 2022: 224–225) or if it may also include other intentions. The focus is also on gaze behaviour of other participants, i.e. the musicians in the rehearsal and the students in the music lesson. The following questions will be considered:

- a) How strong is the role of gaze as a contextualization resource for participation roles (conductor vs. musicians, professor vs. music students) and for turn-taking?
- b) What other functions can participants' gaze directions and gaze shifts fulfil in musical settings?
- c) What actions do specific eye movements perform (e.g., closing or squeezing eyes)?

2 Functions of gaze in interaction

From a Multimodal Conversation Analysis perspective, gaze is described as a multifunctional communicative tool in human interaction (Brône/Oben 2018) and as a key resource for meaning making in interaction (Goodwin 1979; Kendon 1967; Rossano 2012). Within social interaction, gaze is closely related to participant roles and the participation framework in place (Rossano 2013: 311). Gaze behaviour and orientation may have an impact on the relationship among participants engaged in an interactional situation,

including the distribution and negotiation of speaker and hearer roles (Rossano 2012). Early pioneering work by Kendon (1967), Argyle/Cook (1976) and Goodwin (1981) showed that gaze behaviour of speakers differs from that of listeners. Listeners tend to look at the speaker during longer sequences of uninterrupted gaze, while speakers alternate looks towards and looks away from the listener in a more flexible way (cf. also Zima/Weiß/Brône 2019: 51). Gaze can also play a role in the sequential organization of the ongoing interaction. If a speaker looks towards a participant at the end of a turn or when the end is predictable, gaze manages next-speakership (Auer 2018). Additionally, speaker gaze can have a 'floor apportionment' function (Kendon 1967; Duncan 1975): if speakers avert their gaze at the beginning of a turn and shift their gaze back towards the recipient when approaching turn completion, they signal the wish to turn the floor over to the other participant (cf. also Rossano 2013: 315).

The multifunctionality of gaze is also expressed in other communicative and interactional functions, such as signalling attention and interest, achieving joint attention, identifying and disambiguating of reference, giving and eliciting feedback (cf. e.g., Goodwin 1981; Goodwin/Goodwin 1986; Sweetser/Stec 2016; Amati/Brennan 2018; Zima/Weiß/Brône 2019). Furthermore, gaze can be employed in the form of a 'shared gaze' in interaction (Brône/Oben 2018: 4), i.e., joint focus is put on relevant objects in the shared visual space (e.g., referents that are the current topic of conversation) – which is also related to shared epistemic knowledge (cf. Richardson/Dale 2005; Richardson/Dale/Tomlinson 2009).

Recently, the use of mobile eye tracking technology has made it possible to measure eye movements and fixations and has thus led to a new interest in the role of gaze as a resource in social interaction (Zima/Weiß/Brône 2019: 51). By using eye-tracking recordings to study gaze behaviour, previous findings can be validated more exactly and research on multimodal interaction can be extended (Kristiansen/Rasmussen 2021), i.e., eye-tracking data grants access to highly detailed information intriguing for interactional phenomena such as 'joint attention' (Stukenbrock 2020) or 'addressee selection' (Auer 2018). For the present study, eye-tracking was not used for several reasons. First of all, the data collection originally was not intended to record and investigate the gaze behaviour of the participants but to study how the interaction in orchestra rehearsals and chamber music lessons functions and how a 'doing rehearsal' is created. A second reason is that if musicians wore eye-tracking glasses while playing on their instruments, it would most likely irritate if not hinder them, e.g., the violinists who use their bow very close to the face (cf. also Krug/Heuser 2018). Another issue is the naturalness of the interaction: introducing eye-tracking glasses would have brought the situation closer to an experimental setting, where participants are deeply aware that they are serving in an experiment and where they do not engage in activities that they would otherwise engage in (cf. Kristiansen/Rasmussen 2021: 8–9).

Departing from the above described functions of gaze in interaction, the present paper scrutinizes if the multifunctionality of gaze is transferable to musical settings. Reed (2015,

2024), in his studies on embodied interaction in musical masterclasses, has already identified some functions of gaze in this instructional setting, such as indicating performance completion or monitoring. In the present study, it will be investigated if the social, regulatory and communicative functions of gaze, hitherto observed in non-musical and musical settings, become also evident in a similar form or in other forms in the two settings of orchestra rehearsals and chamber music lessons.

3 The relationship between institutional setting and gaze behaviour

Orchestra rehearsals and chamber music lessons are environments where participants orient to their institutional identities: conductor vs. musicians, professor vs. students (cf. Heritage 2005: 108). Within institutional talk, the goals of the participants are linked to the institution-relevant roles, institution- and activity-specific inferential frameworks are common, and often restrictions on the nature of interactional contributions are in force (Drew/Heritage 1992). Institutional interaction takes place on the basis of a specific system of turn taking, which can entail certain asymmetries and restrictions with regard to discursive rights and duties, i.e. the distribution of speech rights and the construction and production of utterances (Heritage/Clayman 2010: 34). In orchestra rehearsals and chamber music lessons, the speech right is asymmetrically distributed, favouring the conductor and the professor: they instruct the musicians/students verbally and in an embodied way (cf. also Stöckl/Messner 2021: 194).

This asymmetry is supported by the participants' orientation in space. In orchestra rehearsals, the conductor stands in front of the musicians, faces them and alternately looks at the score for upcoming instructions; the musicians sit in a semi-circular arrangement around the conductor (cf. fig. 1):



Fig. 1: The participation framework in an orchestra rehearsal

The spatial arrangement and the presence of objects (score, instruments) also have an influence on gaze behaviour in orchestra rehearsals. The musicians' gaze is directed at the conductor and the score; they rarely look at each other. The musicians orient their gaze behaviour towards the conductor's instructions: when the conductor addresses them (verbally, gesturally or also by gazing in the direction of a specific musicians' group,

e.g., the strings) for an upcoming instruction, they display engagement by gazing at them and by looking at the score to compare the conductor's instructions with what is written in there. Here, different types of gazes (conductor: at the orchestra, at the score; musicians: at the conductor, at the score) come into play and manage interpersonal rapport and address (cf. Stöckl/Messner 2021: 205). Stöckl & Messner (2021: 206) also refer to gaze as an "independent transitioning device" between actions (e.g., from evaluating to justifying), i.e., gaze facilitates a smooth transition between (instructional) actions.

Gaze shifts between participants and the score are also constitutive for the interaction in chamber music lessons. In this second musical setting, the participants (professor, clarinettist, pianist and cellist) enter in a circular, but static spatial arrangement and divide a joint transactional space (Kendon 1990: 211; cf. fig. 2):



Fig. 2: The participation framework in the chamber music lesson

Part of this o-space (Kendon 1990) is also the score, as it becomes the object of interpretation and interaction between the professor and the musicians. The professor, for instance, shifts her gaze from the score to the musicians for addressing a participant and/or for communicating to another participant which musical part is important to understand the instruction. Similar to the musicians in orchestra rehearsals, the music students in chamber music lessons display their readiness and cooperation by directing their gaze to the professor when addressed. Gaze thus functions as a social activity (cf. Rossano 2012), i.e., gaze is used to achieve joint attention and simultaneously attention is drawn by gaze to specific objects (mainly to the score; cf. also Stukenbrock 2018). The present paper aims at describing different forms (gaze directions and eye movements) and functions (e.g., gaze used for addressing or allocating the turn vs. gaze used for monitoring) of gaze in orchestra rehearsals and chamber music lessons in relation to the participants' orientation in space.

4 Data and method

The present study rests on 26h of video recordings from two orchestra rehearsals in France and a chamber music lesson at an Italian conservatory. In the orchestra rehearsals, two guest conductors work with the orchestras: a Dutch guest conductor with the *Orchestre de l'opéra de Rouen* and an Italian guest conductor with the *Orchestre de Paris*. The conductors use English, French and Italian as working languages. The participants in the chamber music lesson speak English: a professor for chamber music rehearses with a clarinetist, a cellist and a pianist.

For the present contribution, four instances were selected as representative examples: three examples of orchestra rehearsals and one example of the chamber music lesson. In all instances, gaze is employed by the participants for different purposes, which include interactional and regulatory functions (negotiation of participation roles, turn-taking) and technical functions (playing louder, with more intensity, etc.), but also other functions concerning the sequential, action formational and social character of musical instruction and performance settings. Using the method of Multimodal Conversation Analysis (Deppermann 2013; Mondada 2013), the present study works with multimodal transcripts (Mondada 2018a) to study:

- how gaze direction and shifts of participants in musical settings are sequentially incorporated in the interaction;
- how verbal and embodied modes (gaze, gesture, vocalizing, body posture) are coordinated temporally;
- and how combinations of modes form actions and meaning in interaction.

The transcription of multimodal activity is complemented by images (within the transcripts or the text). The transcripts also include an interlinear English translation. To give an impression of the direction of the participants' gaze (i.e., whether they are looking at each other, at other co-participants or at specific objects, e.g., the score), oval and rectangular symbols as well as arrows inspired by Rossano (2013) are used (cf. ex. 3 & 4).

5 Findings

The four following examples show different functions of gaze in orchestra rehearsals and chamber music lessons. In the first example, gaze is used by the conductor during a turn-at-talk to establish joint attention directed to the score and also as a means to address the musicians. The second example reveals how gaze can be employed for monitoring when the musicians play and the conductor conducts. Example three illustrates how the conductor coordinates gaze and embodied activities (and also speech) for interactional, structural and instructional purposes. In the fourth example, which shows an instance from a chamber music lesson, gaze is used by the participants to negotiate participant roles and turn allocation.

5.1 Example 1: *Gaze for monitoring/employing joint attention on score during a turn-at-talk*

In this first example, taken from a rehearsal of the *Orchestre de l'opéra de Rouen*, the conductor interrupts the musical performance and switches to an instructional sequence in which he addresses specific musicians' groups and demonstrates a part of the score for them by singing and gesturing. During the instruction turn, the conductor shifts his gaze between the score and the addressed musicians: cellists, bassists, bassoonists. They react to the conductor's instruction by looking at the score or by nodding.¹ Another musician, the first violinist, who is not addressed explicitly, displays attention by gaze and embodied behaviour. In the transcript, "C" stands for the conductor, "V1" for the first violinist, "B2" for the second bassoonist, "MM" for the orchestra musicians and "CC" for the cellists.

```

1 C [very good! very very good,◊
  c >>gaze-->score-->(6)2
  v1 >>holds instrument on chin-->(6)
    >>gaze-->score-----◊
  b2 >>gaze-->cond.----->>
2 MM [♪((play))
3 C ♠❖☆°h *s'il vous♠ ◊plaît (0.2) #c'est possible]
      please is it possible
  c *tilts head downwards-->(5)
  v1 ♠gaze-->cond.--->♠ ◊gaze-->score-->(6)
  cc ❖gaze-->score--->>
      ☆take notes in their score--->>
  fig #fig.4
4 MM ]
5 C (.) eh* UNE fois ~(.) eh- cello bass basson ~
      one time cello bass bassoon
  c ,,,,,,* ~....stretches index finger upwards~
6 C °h:& *~!◊#JAM!$◊~ (.) ☆!PAM!☆ ◊PA* ◊
  c ,,,& *gaze-->cello+basson ,,,,,*
      ~moves RH jerkily fwd~
      ☆moves RH jerkily fwd☆
      ◊moves RH jerkily fwd◊
  v1 ,,,,,,,,,,,,,,$◊
  b2 ◊nods----->>
  fig #fig.5
7 C (0.3) &très SHORT! (.) ta da D&*I- (0.2) ~!TA:::M! ~
      very short
      &gaze-->score----->&*gaze-->cello+basson-->
      ~moves RH jerkily fwd~

```

¹ From the camera perspective, only a part of the three musicians' groups are visible: four cellists and the second bassoonist. The reactions of these five musicians are included in the transcript.

² The numbers in brackets refer to the lines up to which the respective action continues.

8 *ti da di** &(0.2) ~!TA::M!& ~
 -->* &gaze-->bass,,,,&
 ~moves RH jerkily fwd~

The example shows how the conductor's gaze at the score and gaze in the direction of the musicians are sequentially coordinated. The conductor interrupts the musical performance by an evaluation ("very good", l. 1) and an immediately following introduction of an instructional activity ("is it possible" within the meaning of 'is it possible to play x', l. 3). He addresses three groups of musicians ("cello bass basson", l. 5) and continues his instruction in an embodied way (l. 6–8), combining vocal patterns, gestures and verbal instructional turns. When interrupting the music and addressing the musicians, the conductor's gaze is directed to the score, the head is tilted downwards. Only as the conductor starts to sing (l. 6), he directs his gaze to the cellists and bassoonists, i.e. to a part of the addressed musicians. As shown in line 7, during the verbal instruction "very short", he redirects the gaze to the score. As he is embodying the verbal instruction on a vocal and gestural level, he looks again in the direction of the musicians, first to the cellists and bassoonists, then to the bassists (l. 7–8).

Gaze here is finely coordinated with verbal and embodied activities: while singing and gesturing, the conductor's gaze is directed to the musicians; while verbally addressing and instructing, the gaze is directed to the score. The latter gaze direction stresses the central role of the score in the interaction between conductor and musicians. The score as an object present in the interaction is in the centre of the shared o-space (Kendon 1990) and entails 'joint attention' (Kidwell/Reynolds 2022), i.e., two or more individuals gaze towards a third entity. The score is a shared written text which is available at least in part to all the participants and which meaning emerges through the interaction between the conductor and the musicians (Weeks 1996: 248). Due to the participants' arrangement and orientation in space, however, it is not possible that all parties direct their attention on the same object – as it is for instance the case at a farmer's market (Stukenbrock/Dao 2019) or in a shop (Mondada 2018b), where all the participants visually orient to a buying object. Yet, in orchestra rehearsals, joint attention is guaranteed by the presence of the same object in multiple copies.

As shown in lines 1–6, the conductor looks at the score in front of him while interrupting the music and addressing specific musicians' groups. The second bassoonist shows reciprocity by looking at the conductor during the whole sequence and by nodding (l. 6, cf. the yellow circle in fig. 3). The cellists' attention is directed to the score where they are taking notes (cf. the green rectangles in fig. 3):



Fig. 3: Reactions of the addressed musicians to the conductor's instruction

Interestingly, the first violinist joins the conductor's gaze direction (l. 3), even though he is not addressed. By looking at the score on his music stand, he shares the point of focus with the conductor and signals readiness (to be possibly addressed) by holding his instrument on the chin (cf. fig. 4):

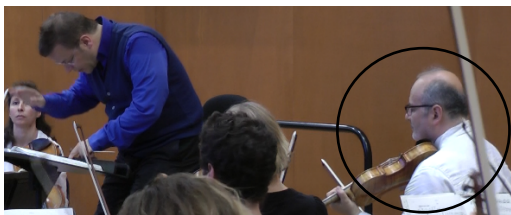


Fig. 4: First violinist holding instrument on chin and looking at the score



Fig. 5: First violinist putting instrument down and withdrawing gaze from the score

The embodied display by the violinist is comparable to what Kidwell/Reynolds (2022) described regarding joint attention behaviours and concerted actions of participants. Following Kidwell/Reynolds (2022), in focused interaction, co-participants can be motivated to join a participant's gaze direction or gaze shift to an object or a point of focus that serves (willingly or not) to stress its relevance for the interaction and/or transform the current participation framework to a new one. By orienting to the gaze direction of the conductor and also by holding the instrument on the chin, the violinist displays (sustained) attention and commitment. His embodied reaction is finely coordinated with the conductor's gaze behaviour and verbal addressing. Yet, as soon as the addressing action of the conductor is concluded (l. 5), the violinist shifts his gaze away from the score and puts his instrument down (cf. fig. 5).

This sort of co-looking to the score is also ended by the conductor's gaze shift to the cellists and bassoonists (l. 6) which opens up a new participation framework.

The example demonstrates that gaze can be used to establish joint attention (intentional or not) directed to the score. The conductor, by his glance, includes the score in the interaction as an object to which refer to identify specific musicians' groups. Gaze shifts between the score and the musicians are employed to switch between singing and verbal instructing. According to Poggi/Ansani (2022: 224), the conductor's gaze shift to the musicians may also call for attention. Lerner (2003) showed that a speaker's look towards a participant is an explicit form of addressing a co-participant. By his gaze direction, the conductor addresses his vocal instructing in the most direct way to the implied musicians. In the next example, which is a continuation of the first one, another function of gaze is observable: that of monitoring during musical performance.

5.2 Example 2: *Gaze employed for monitoring during musical performance*

Example 2 illustrates gaze behaviour during musical performance which follows on from the instructive sequence in example 1. The conductor uses gaze to show interactional engagement with specific musicians while they are playing. Comparable to example 1, another musician, the first violist, displays reciprocity in an embodied way even if not directly addressed. In the transcript, "V^{a1}" indicates the first violist and "MM" the three previously instructed musicians' groups: cellists, bassoonists and bassists.

```

20 C  &*~(0.4)* ♦$%#!POM! (0.4) !AH!& ✨(0.4)
    c  &gaze-->cello+bassoon+bass--->& ✨gaze-->score-->(25)
        *stretches arms twd cello, bassoon and bass*
        ~body torque--->>
            ♦conducts--->>
va1    $puts viola to chin-->(25)
        %gaze-->score-->(25)
fig    #fig.6
21 C  [!PAM! (0.4) !PAM! (0.5)
22 MM  [♪((play))
23 C  [!PA::! ]
24 Va1 [♪((plays one note))♪]
25 C  [(0.5) ✨ &$%AH::%$:: !AH! (0.2) $ ✨TA DA DI- (.) !TA:M! ✨
    c  ,,,,, ✨ &gaze-->cello+bassoon+bass-->>
va1    ,,,,,, %$gaze-->conductor$
        ,,,,,, $%puts viola down% ✨gaze-->score-----> ✨
26 MM  [♪((play))

```

As shown in line 20, the conductor moves from the instruction turn to a musical performance by enunciating two accentuated syllables and by beginning to conduct (for transitions cf. Messner 2023). Already before he begins to conduct, he looks and stretches the arms in the direction of the cellists, bassoonists and the bassists, i.e., the groups of musicians he has addressed during the previous turn-at-talk (cf. ex. 1). Additionally, by his torqued body posture (Schegloff 1998), i.e., by directing the upper body to the right and thus to the implied musicians' groups, the conductor opens up a temporary interactional space (Mondada 2009) within the larger interactional space of the orchestra rehearsal. From line 21 until line 25, the conductor conducts and uses vocalizations that accompany the musical performance of the cellists, bassoonists and bassists. His gaze is directed or to the score (l. 20–25) or to the musicians (l. 25–26). Of special interest is the embodied reaction of the first violist, sitting on the far right (seen from the conductor, cf. fig. 6):



Fig. 6: Embodied reaction of the first violist

The violist puts the viola to the chin (l. 20), i.e., she is preparing for playing, even if the violists were not addressed explicitly during the previous conductor's instructional turn. The violists, though, also have to play at this passage in the score. By gazing at the score (l. 20–25) and playing one note (l. 24), the first violist, as an unaddressed recipient (Goffman 1981), displays reciprocity for the conductor's request to play. Yet, as she realizes that she is the only one of the violists to play (l. 25), she puts her viola down and looks at the conductor. The conductor does not return her gaze, as his gaze is directed to the cellists, bassoonists and bassists. As shown in line 25, the violist shifts her gaze back to the score.

The violist's gaze at the conductor (l. 25) is a form of monitoring him for action (Goodwin M. 1980). She verifies the conductor's gaze behaviour and embodiment in order to adapt her own embodied behaviour. In fact, she does not put her viola again up to the chin, but directs her gaze to the score. In this way, she withdraws from the current interactional situation (conductor and other musicians), stops her engagement and displays "a specific understanding of the ongoing development of the course of action" (Rossano 2013: 320). Similar to example 1, the conductor uses gaze to address co-participants in this multiparty setting (cf. also Holler/Kendrick 2015). His gaze direction to the cellists, bassoonists and bassists does not only address them (l. 20), but also projects a next action, i.e. their musical response to his instruction (l. 22). The conductor's gaze is comparable to a

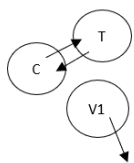
speaker's gaze towards a participant at the end of a turn as a means to select next-speakers (cf. Kendon 1967; Argyle/Cook 1976; Goodwin 1981). This form of gaze enters the regulatory functions: gaze is employed for turn allocation and sequence organization (Rossano 2013: 315). Additionally, the conductor combines gaze, gesture and body posture (cf. l. 20) to open up an interactional space with specific groups of musicians and to enter with them in a situation of focused interaction (Goffman 1963). The three modes play together to display the conductor's engagement with the addressed recipients. They also elicit a next action by the musicians, i.e. their musical performance and putting into practice of the previous instruction.

5.3 Example 3: *Gaze and embodied behaviour used for interactional, organizational and instructional purposes*

In example 3, which is more complex than example 1 and 2 and taken from a rehearsal of the *Orchestre de Paris*, the conductor instructs the timpanist to play a passage in the score more "secco" ('dry', 'without resonance'). He also includes other musicians' groups in his instruction turn (the strings). Gaze – in combination with further embodied activities – is employed for different purposes: structuring the interaction, opening/closing participation frameworks and instructing on musical-technical aspects. In the transcript, "T" designates the timpanist, "V^a1" the first violist, "V^a2" another musician out of the group of the violists, "DB" a double bassist and "MM" all of the orchestra musicians. These abbreviations are also included in the drawings (inspired by Rossano 2013) where the arrows indicate the gaze directions of the participants and "S" stands for the score. Since the extract is relatively long, it is split up in three parts: 3a) lines 1–6, 3b) lines 7–14, 3c) lines 15–21.

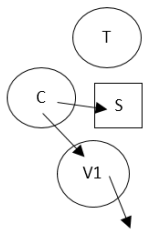
3a)

((musicians play, gaze at the score; conductor conducts and listens, gazes at the score; 4.4''))



```

1 C °H &+è %possibile più ☆secco? ⚙(0.6) ⚙+&%
    is it possible more secco/dry
c &...gaze-->timpanist-----&
  +..points with left index finger--+
t %gaze-->conductor-----%
                                ⚙nodes ⚙
va1 ☆turns head backwards-->
  
```



2 C &(0.8) & *(1.8) ⚙(1.2)+* &(2.0) (0.3)⚙ (0.7)◆☆ (1.1) % (0.7) &
 c &gaze-->score& &gaze-->score-----&
 gaze-->violists
 +turns upper body to the violists+
 t ⚙takes notes-----⚙ %gaze-->C-->(6)
 v^a1◆((speaks with violists)) ,,,,,,,,,,◆☆

3 C &(0.3) vous êtes la +gens ah ah que dit (.)+ ♪non!♪ ◆(0.4)
 you are the people who say no
 &.....gaze-->timpanist-->
 +points with left index finger+ ◆....
 ♪moves IF♪

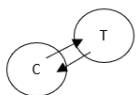
4 C †s'il vous plait# (0.6) aidez MOI◆ +(0.4) & *(0.1)+ ♪(0.2) non. ♪*
 please help me no
 arms fwd-----◆ +moves RH+ ♪.....moves LH♪
 ,,,,,, & *gaze-->score-----*
 †frowns-->(6)

fig

#fig.7



5 T =&((plays))
 c &gaze-->T-->



6 C +(1.2)+† ◆♪#(0.5) (0.4) ♪ ■(0.3) & *#(0.2)■◆*%
 c +nods + -----& *gaze-->score*
 -----† ◆raises eyebrows and widens eyes ◆
 ♪.....palms touch each other♪
 ■opens arms ■

fig

#fig.8



#fig.9



t

.....%

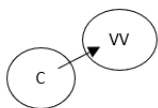
The first part of the example starts with a question by the conductor – which here functions as a sign of music interruption – directed to the timpanist who responds by nodding (l. 1). This is followed by a monitoring action of the conductor of another group of musicians (the violists, l. 2). The conductor then redirects his attention to the timpanist and utters his idea of how to interpret a certain part of the score (just played before, l. 3–4). The timpanist responds by playing on the timpani (l. 5); this response is ratified by the conductor's nodding (l. 6).

By looking closer to the transcript, it becomes evident that the conductor selects the recipient of his question by combining gaze and gesture: he shifts his gaze to the timpanist and points with the left index finger in the same direction. The timpanist displays reciprocity by looking at the conductor and by nodding, and thereby allows for the establishment of eye contact (cf. also Goodwin 1979). Simultaneously, the first violist (who sits in the front row to the right of the conductor, cf. also ex. 2) turns the head backwards to his colleagues. As shown in line 2, the conductor monitors the violist's action by gazing at him. He shifts his gaze between the score and the violist and turns the upper body in the direction of the violists. In this way, he withdraws from the interaction with the timpanist and opens up a new interactional space. At the same time, the timpanist takes notes and the first violist speaks with the other violists. However, by redirecting his gaze to the conductor after taking notes, the timpanist still shows attention for the course of the instructional action.

Different foci of attention overlay in this multiparty setting: the conductor's attention is directed to the violists, the first violist's attention is directed to his colleagues sitting behind him, and the timpanist's focus of attention is directed to the conductor. Similar to the observations made by Heath (1984), the conductor's gaze and body torque (Schegloff 1998) here may elicit a gaze re-orientation of the first violist. However, since the first violist maintains his focus of attention, the conductor does not obtain recipient gaze (cf. Heath 1984; Rossano 2013) and redirects his attention back to the timpanist (l. 3). He again employs gaze and gesture to show engagement with the timpanist as interactional partner and continues the instruction from line 1 by using a multimodal metaphor (Forceville 2009) that paraphrases the character of the musical passage (l. 3–4).

The timpanist (still) displays attention by his gaze direction to the conductor and also by playing a note on the timpani (l. 5). As shown in line 6, the conductor first ratifies the timpanist's playing by a nod and then continues his depictive demonstration of the musical character combining eye movement and gesture. The conductor already starts to frown before (l. 4, cf. fig. 7); after his nod (l. 6), he shifts from frowning to widened eyes. In their lexicon of the conductor's gaze, Poggi/Ansani (2022) relate a frown to the indirect meaning of feeling or expressing anger and to intensity in music ('play loud'). The verbal turn of the conductor (l. 4) in the form of a request ('please help me'), though, is not in line with the emotion of anger, but rather with the feeling of despair. Also the description of raised eyebrows with wide opened eyes by Poggi/Ansani (2022) as a way to express emphasis ('I ask for higher attention') is not applicable to the data in this study. As shown in line 6, the conductor combines raised eyebrows and wide opened eyes first with a hand position in which the palms are held together (cf. fig. 8), as if in prayer, and then with opened arms (cf. fig. 9), also called 'M-form' (Clarke et al. 2021). Both gestures can be described as metaphorical gestures (McNeill 1992), i.e., gestures that metaphorically transfer the thing to be represented to another domain. Together with the eye movements, the gestures are part of a multimodal metaphor (Forceville 2009) depicting the inner state of begging/requesting (despairingly) for help, already verbalized by the conductor before (l. 4).

3b)



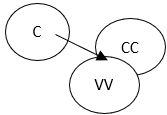
```

7 C +♦†°H::† *(0.3)* &eh: to ♪do this=eh♫+ ■(0.2) on the beat=eh■&
+.....points with left index finger-+ ■moves hands-----■
                ♫points with right IF♫
♦.....turns upper body to the violinists-->(9)
†closes eyes†
                *gaze up*&gaze-->score-----&
8 C +♫(.) et †s'il vous plaît (.) le::s (0.5) #le:::s (0.2) les notes
and please the notes
c +....turns head to the violinists-->
    ♫moves hands-->
        †closes eyes-->
fig                                     #fig.10

```



9 C *tria::m: pa:: pa-†◊+♩*
 -----†◊+♩



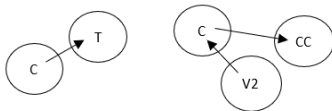
10 C &+♩ *un po' più lunghe (0.4) un poco♩ più so (.)*
a little bit longer a little bit more so
 &gaze-->violinists/cellists-->

+turns upper body to the right-->
 ♩holds hands at chest level ♩

11 C ◊+*tria::& *(0.4) #s'il vous plaît ayudez-moi◊+*
please help me

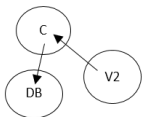
c ◊moves arms fwd -----◊
 ,,,,,+

-----& *gaze-->violinists-->
 v2 ◊nods-->
 fig #fig.11



12 C &(0.2)◊ &*(0.5) <<1,rough> +★bum.*+>
 c &gaze-->T&*gaze-->cellists-----*

+points with left IF-->
 v^a2,,,,,◊ ★gaze-->conductor-->(14)



13 C &♩(0.2) ◊e MOLTO secco anche:+ ◊
and very dry also

&gaze-->double basses-->
 ◊..points with right IF◊
 ,,,,,,+

♩.....turns upper body to the right-->

14 C +eh::: (0.6) senza (0.2) beaucoup de resonance eh? (.) (so) ♩&+★
without much resonance

c +moves hands

v^a2

,,,, ♯ & +

,,,,,,,,, ☆

As shown in line 7, the conductor reconfigures the interactional space by turning the upper body and by pointing in the direction of the violinists and therefore opens up a new participation framework (cf. Mondada 2014). He instructs the violinists to articulate specific notes – that he vocalizes using the syllables “triam” and “pa” (l. 9) – in a different way (“un po’ più lunghe”, l. 10). This instruction is followed by another reconfiguration of the participation framework (l. 10): the conductor turns the upper body to the right and directs his gaze to the violists and cellists. He instructs these two groups of musicians by combining verbal, vocal and embodied resources (l. 10–12) and includes also the timpanist within the instructional turn by looking at him (l. 12). As demonstrated in lines 13–14, the conductor further expands the participation framework by looking and turning the upper body in the direction of the double basses and involving them in the course of action. Interestingly, the conductor’s gaze behaviour at the beginning of the extract part does not reflect the orientation of his body. He first closes the eyes, then gazes upwards before directing the gaze to the score (l. 7). The eye movements are timed with actions on the verbal level: the closed eyes are coordinated with an inhalation; the gaze upwards is realized during a pause (0.3sec); the gaze at the score is accompanied by a verbal instruction. Even when the conductor turns the head in the direction of the violinists (l. 8–9), he does not look at them, but keeps his eyes closed and squeezed (cf. fig. 10). The closed and the squeezed eyes are also part of the lexicon of the conductor’s face developed by Poggi/Ansani (2022). According to the authors, the conductor’s closed eyes are part of an attitude/emotional category of gaze and act as a sign of concentration (‘I’m concentrated’); squeezed eyes are attributed to a feeling about the ongoing performance (negative feedback, Poggi/Ansani 2022: 225–227). The conductor though does not give a negative feedback to the musicians (at least not in an explicit way, l. 7–9), but instructs them verbally and vocally how to play specific notes. The conductor’s eye movements here are thus connected to a directive action which implies a technical indication, expressed verbally shortly afterwards (l. 10, ‘play the notes a little bit longer’).

As shown in line 10, the conductor switches from the violinists to the violists and cellists as addressed participants. The verbal instruction ‘a little bit longer’ is combined to an embodied re-orientation. The conductor mobilizes various multimodal resources to achieve the organization of transition and to make it publicly visible and intelligible (l. 10–11, cf. Mondada 2014: 256). He looks and turns the upper body in the direction of the newly addressed musicians, he utters a verbal instruction (l. 10) and employs a vocal-gestural demonstration (l. 11), and he repeats the multimodal metaphor from line 4 (‘please help me’, cf. extract 3a). Interestingly, the verbal instruction (l. 10) is already directed to the violists and cellists, but does also complete the instructional sequence for the violinists started earlier (l. 7). In fact, the violinists, the violists and the cellists (and also

the double basses) have to play the same notes at this point in the score (vocalized by the conductor with the syllables “tria(m)” and “pa”).

The conductor’s transition action is thus oriented retrospectively to the violinists, as a conclusion of the instruction turn, and prospectively to the violists and cellists, as the beginning of a new instructional sequence. Speech, gaze, upper body movement and also gestures here are combined to incrementally move from one participation framework to another, but also simultaneously to intertwine them. In this sort of ‘multiactivity’ (Haddington et al. 2014), the conductor is engaged in multiple activities at the same time: addressing, moving from instruction to performance, instructing and demonstrating.

As shown in line 12, the conductor also includes the timpanist as recipient of his instructional turn by directing his gaze and the left index finger to him. At the same time, he maintains the joint attention established with the violists and cellists by his gaze. By involving also the double basses in the course of action (l. 13–14), the conductor expands the participation framework even more. He looks at this musicians’ group, points with the right index finger and turns the upper body in their direction. Also here, the conductor continues an already created focus of attention: he still points in the direction of the timpanist with the left index finger. The conductor’s multiactivity becomes a ‘multicoordination’: by gaze, gesture and torqued body positions, he coordinates multiple addressed participants within his instruction turn (cf. also Auer 2018: 210). One of the violists (cf. fig. 11, l. 11–12) reacts to the conductor’s instruction turn first by nodding and then by looking at him (l. 12–14):



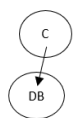
Fig. 11: Reaction of the violist to the conductor’s instruction

Another musician’s reaction is observable shortly afterwards (cf. extract 3c, l. 15): a double bassist plays a note on his instrument. These minimal responses (Bavelas/Coates/Johnson 2002) display reciprocity and engagement in the course of action. Interestingly, the conductor only treats the played note as a sign of reciprocity by looking to the bassist and by ratifying it on the verbal (‘yes’, l. 15) and the gestural level (gesture in the right hand, l. 15). Gaze, speech and gesture here are used to integrate a participation display and to show its relevance for the course of action. Yet, the violist, by his embodied reaction and gaze behaviour, shows to be an attentive participant as well. He is still a ratified participant in the conversation but momentarily unaddressed (Goffman 1981). The violist tracks the conductor as current speaker (Holler/Kendrick 2015: 9); moreover, by his gaze, he secures access “to as much of the current speaker’s visible bodily behaviour as possible, including

torso, head, and hand gestures, as well as lip movements and facial expressions that accompany the communicative action” (Holler/Kendrick 2015: 11).

In this instructional sequence (l. 7–14), the conductor addresses different musicians’ groups by gaze, gesture and body posture. Specifically, the combination of gaze and upper body posture turns out to be productive to project a new participation framework or also to interlace multiple participants and activities within an instructional project. It is also observable that the conductor links different eye movements and directions while instructing and addressing musicians. Gaze can thus be described as a powerful resource to stress meanings connected to musical-technical features (e.g., playing longer notes) and to structure and organize the interaction. Furthermore, during the conductor’s instruction turn, gaze and embodied behaviour can also be employed by other participants (the musicians) in the orchestra rehearsal to display attention and engagement in the interaction (cf. also Goodwin C. 1980; Heath 1984; Kidwell 1997; Ford/Stickle 2012).

3c)



15 C &+(0.4) (0.8) seize& *[(0.2)] ja! ◇(1.1)◇*

sixteen yes

&gaze-->score-----& *...gaze-->DB----->*

+extends arms outwards-->(18) ◇gesture right hand◇

16 DB [♪((plays))♪]



17 C &(0.2) seize! (0.3)& *(0.8)* &(0.2) (0.8)&

sixteen

&gaze-->score-----& *gaze-->violinists*

&.....gaze-->cellists&



18 C &(1.5) °h:: &†trois+ ◇(0.5) quat- h°:::

three four

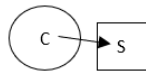
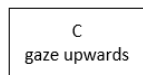
&gaze-->score&†closes eyes-->

-----+ ◇conducts-->(21)

19 C [h°:=u:i:::: di::: du dum†

,, , †

20 MM[♪((play))



21 C [&(0.8) h°:::◇ (2.0) +h°::: : °h h°:::& *(1.0)
 &gaze up-----& *gaze-->score-->>
 ,,,,◇ +conducts-->>

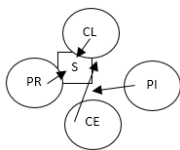
22 MM[♪ (play))

In the third part of the extract, the conductor indicates a bar number in the score ('sixteen', l. 15) and extends the arms outwards. He repeats the number and directs his gaze to the score (l. 17). Shortly after this locating action, he first looks at the violinists and then at the cellists. He redirects the gaze to the score (l. 18), counts ('three four'), simultaneously closes the eyes and starts to conduct. While the orchestra plays (l. 19–22), the conductor uses vocalizations and multiple hearable inhalations. As shown in line 21, he switches from closed eyes to a glance upwards before directing the gaze to the score.

In this section (l. 15–22), the conductor coordinates a restart of the musical performance by combining verbal indications of where to start to play, verbal counting in, gestural movements, vocalizations, inhalations and gaze behaviour. Especially the temporal and incremental unfolding of his gaze directions and eye movements are interesting. He starts by switching his gaze between the score and musicians' groups until counting in (l. 18), when he closes his eyes. This gaze behaviour, which is tightly related to the conductor's position and orientation in space, can be described as a sort of 'panorama gaze' which serves as an attention getter for the projected musical performance, i.e., gaze functions on the interactional level (cf. Poggi et al. 2020: 5–6). As the conductor counts in, starts to conduct, and uses vocalizations, he switches from opened to closed eyes. He then reopens his eyes and gazes upwards (l. 21). Both eye movements, the closed eyes and the eyes directed upwards, are – according to Poggi (2002) and Poggi et al. (2020) – signs of concentration. They act on an emotional level and are able to convey expressive elements, e.g., despair (cf. Poggi et al. 2020: 9). However, these eye movements are not autonomous as a conducting signal but necessarily need to concur with other meaningful resources, such as vocalizations, inhalations and conducting gestures to convey expressive indications (cf. Poggi et al. 2020: 9).

5.4 Example 4: *Gaze for negotiating turn-taking and participant roles*

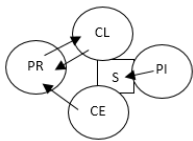
In this example, taken from a chamber music lesson at a music conservatory, the professor and the clarinettist are discussing about where to breathe. The pianist is entering the conversation and suggests to play the movement more slowly; the cellist, as unaddressed participant, displays attention by his gaze behaviour. The example demonstrates how gaze is employed to negotiate turn-taking, turn allocation and participant roles. In the transcript, "CL" stands for the clarinettist, "PR" for the professor, "PI" for the pianist and "CE" for the cellist.



```

57 CL $[but] if i breathe% ⚙(0.2) in::=ehm BA:R two:$ after my la?*
    cl >>gaze-->score----->
    pr >>gaze-->score-----> -----*
    pi >>gaze-->PR,,,,,,,,% ⚙gaze-->score-->(59)
    ce $...gaze-->CL-----,,,,,,$

```



```

58 PR *$(0.5)* &mhm (0.2)$ ~(1.3) °h: ta:& *di: da- YES (you do the~ here)*
    pr *gaze-->CL*
        &gaze-->score----->& *...gaze-->CL----->,,,,,*
    cl          ----$ ~gaze-->PR----->~
    ce $gaze-->PR-->(64)

```

```

59 PR ~$(0.5) °H but is no:t⚙ %enough~* &$ONE (.) $
    pr *gaze-->score----->* &gaze-->CL-->
    cl ~gaze-->score----->~ $gaze-->PR$
    pi          ,,,,⚙ %gaze-->PR-->

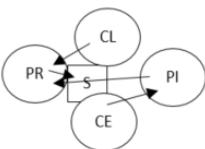
```

```

60 CL ~$(mhm) (0.3)~&%
    cl ~nods----->~
        $gaze-->score-->(64)
    pr          ----->&
    pi          ----->%

```

[...]



```

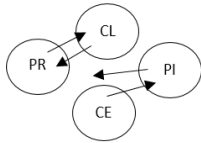
68 PI          [but i think %(in⊗ $general)]
    pi          %gaze-->PR-->(72)
    ce          gaze-->CL-->,,,,⊗ $gaze-->PI-->(70)
    cl          gaze-->PR--->(70)
    pr          gaze-->score--->(70)

```

```

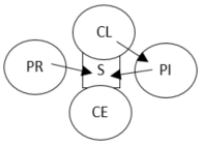
69 CL          [pa pa ta          ]

```



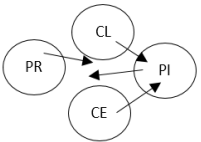
70 PR =<<getting lower> ta ti: da::>\$ (0.6)* &↑maybe (0.4) ↓maybe~
 pr gaze-->score,,,,,* &gaze-->CL-->
 cl gaze-->PR,,,,,~
 ce ---->\$

71 PR \$(0.2) TRY! (0.3) try=eh all together&\$
 pr ,,,,,,,,,&
 cl \$gaze-->score----->,,,,,,,,,\$



72 CL \$*(0.9)% ⚙[what]
 cl \$gaze-->PI-->>
 pr *gaze-->score-->
 pi ----->% ⚙gaze-->score-->(74)

73 PR [it's] [very* &difficult]
 --->* &gaze-->PI-->>



74 PI [xxx NOW⚙ %that] \$we are:::a little bit too fast
 pi ,,,⚙ %gaze-->PR-->
 ce \$gaze-->PI-->

75 PI (.) this moment is not% ⚙fast.\$ (0.6)⚙
 pi ,,,% ⚙gaze-->score⚙
 ce ---->\$

The example starts with the clarinettist’s verbal suggestion on how to resolve the ‘breathing’ problem (l. 57). The professor acknowledges the suggestion and vocalizes the problematic part (l. 58), before admitting that one breath is not enough within the whole musical phrase (l. 59). The clarinettist responds verbally (by uttering “mhm”) and gesturally (by nodding, l. 60) to the professor’s turn. As demonstrated in line 68, the pianist tries to enter the conversation with an utterance in overlap with the clarinettist’s singing (l. 69). The professor again uses vocalizations in search of the solution to the ‘breathing’ problem (l. 70) and asks the musicians to play (l. 71). However, she does not react to the pianist’s attempt to be part of the conversation. As shown in line 72, the clarinettist includes the

pianist in the ongoing exchange by uttering the interrogative pronoun “what” and by directing her gaze in his direction (l. 72). The professor also looks at the pianist (l. 73), who then takes the floor to utter his concerns related to the tempo (l. 74–75).

With regard to gaze behaviour, at the beginning of the extract, the clarinettist’s gaze and also the professor’s gaze are directed to the score, i.e., they share the same focus of attention (l. 57). As demonstrated in line 58, the professor approves the clarinettist’s proposal and sings the corresponding notes of the score. The gaze of the professor and the gaze of the clarinettist shift between the score and the interaction partner within this participation framework. The pianist and the cellist, engaged in the interaction as unaddressed participants, display interesting gaze behaviour (cf. Rossano 2012). The pianist first looks at the professor, then switches his gaze to the score. The cellist looks at the current speakers: first at the clarinettist (l. 57), then at the professor (l. 58). As shown in lines 57–58, gaze is closely related to participant roles (cf. Rossano 2013: 311). The cellist as a listener of the conversation between the clarinettist and the professor shows longer sequences of uninterrupted gaze towards the speaker (cf. also Kendon 1967; Goodwin 1981). He follows the interaction of the primary contributors as an unaddressed participant and anticipates turn shifts between them (cf. Holler/Kendrick 2015) by looking at the professor – before she starts to speak (l. 58) – as recipient of the clarinettist’s turn. At the same time, the professor and the clarinettist shift their gaze towards and away from the recipient and at the score more flexibly. Their gaze direction (and also the gaze of the pianist at the score) stresses the importance of the score as object on which the entire interaction is oriented. Yet, as it is also observable in lines 59–60, the presence of the score simultaneously diminishes the amount of recipient gaze at speakers, as recipients look at the object being talked about instead (cf. also Rossano 2012).

As shown in line 68, the pianist is verbally entering the conversation between the clarinettist and the professor, i.e., he takes the turn at a possible completion point (cf. Sacks/Schegloff/Jefferson 1974) without having been selected as next-speaker. He does this in overlap with the clarinettist as current speaker (l. 69). In contrast to what was observed by Zima (2018), the pianist, as the not selected speaker, does not avert his gaze at turn-beginning, but he constantly looks at the professor (until l. 72) and tries to attract her attention (cf. Weiß 2020). However, the professor does not display reciprocity for the pianist’s turn but is still involved in the negotiation activity with the clarinettist, that she also shows by her gaze direction (l. 70). According to Schegloff (2000), the success of a turn in overlapping is linked to whether a recipient may be secured (cf. also Oloff 2012). The clarinettist uses the gaze at the professor as ‘turn holding’ technique (Kendon 1967; Goodwin C. 1980); the professor shifts her gaze between the score and the clarinettist. The simultaneously speaking competitor, the pianist, is thereby forced into the role of the recipient and does not succeed in taking over the turn (cf. Weiß 2020: 163). Only the cellist displays attention by looking at the pianist (l. 68–70). Yet, gaze alone in the direction of the pianist is too weak to assign him the role of next-speaker. Gaze would be more powerful

and effective to offer the turn to a co-participant when used in tandem with verbal or multimodal techniques of next-speaker selection (Auer 2018: 229). This section shows that gaze behaviour plays a crucial role in problematic turn-taking processes in multiparty settings, as gaze is used to negotiate and mediate who has which participant status and who can win the recipient's attention (cf. Weiß 2020: 197).

Despite a temporary (verbal) withdrawal from the overlapping turn, through gaze direction, the pianist still indicates that he is 'on standby' and is pursuing the interaction with the aim of taking over the right to speak in the next free slot (cf. Oloff 2012: 148–149). As illustrated in line 71, the professor asks all three musicians to play the passage of the score under discussion. The clarinettist shifts her look to the score, i.e., she averts the gaze from her co-interlocutor and suspends mutual gaze. Also, the professor shifts her gaze back to the score (l. 72). In this way, they display an orientation towards sequence completion (cf. Rossano 2012). As demonstrated in line 72, the clarinettist opens up a new participation framework and hands over the turn by looking at the pianist and asking him what he wanted to say before (cf. also Zima 2018). She combines gaze and verbal techniques for next-speaker selection, which is more successful than employing gaze alone (cf. in contrast to the gaze of the cellist, l. 68–70). In fact, the professor and the pianist are producing two turns in overlap, start to establish a mutual gaze, and enter into a focused interaction (l. 73–74). The clarinettist and the cellist are part of the interaction as unaddressed participants who display attention through their gaze direction to the speaker, i.e. the pianist (cf. Holler/Kendrick 2015).

Part of the interaction is also the score, which is integrated through gaze direction. The professor looks at the score as she begins her verbal turn (l. 73), and also the pianist shifts his gaze between the score (l. 72–74, l. 75) and the recipient of his verbal turn (l. 74–75). The look at the score again stresses its importance for the interaction between the participants in a musical setting. Gaze here is used for reference, i.e., for locating the verbal utterances within the score as an object that indicates who has to play what, when, and how. The analysis of lines 71–72 also shows that gaze shifts to the score may signal sequence completion and the transition to a new activity or interactional episode (cf. also Stöckl/Messner 2021: 205–206).

The example reveals that gaze behaviour can impact the reorganization of the participation framework. By orienting the gaze in the direction of the pianist (cf. l. 72), the clarinettist initiates a "participation shift" (Gibson 2003) where an initial unaddressed participant becomes the speaker. In her status of an addressed participant in the prior participation framework (professor and clarinettist discuss where to breathe), she is able to allocate the turn to the pianist – by gaze and speech. The cellist, though, in his status as an unaddressed participant, is not successful in directing attention to the pianist by his gaze (cf. l. 68–70). This shows that the different status of the participants has divergent interactive relevance for the activities taking place in the context of the interaction. The temporal analysis of gaze shifts further illustrates that unaddressed participants, such as

the cellist, can anticipate the following turns and, moreover, that they shift their gaze towards the next speaker at the end of the current turn. In this way, the cellist not only shows to be an attentive participant who tracks current speakers, but he also displays reciprocity with regard to the prior and the next speaker (cf. also Holler/Kendrick 2015).

6 Conclusions

The present study sought to investigate functions of gaze directions and eye movements in two musical performance settings, orchestra rehearsals and chamber music lessons. The focus was on the link between participants' gaze behaviour, institutional setting and the distribution of participation roles, as well as the participants' orientation in space. Emphasis was also put on the interplay between gaze and other multimodal resources (speech, gestures, body posture, etc.) to convey meaning. The present section summarizes and discusses the findings with regard to the initially asked research questions: the roles and functions of gaze in musical settings, and the actions gaze behaviour can perform.

The analysis of the three extracts taken from orchestra rehearsals has demonstrated that the conductor's gaze towards musicians serves as a form of explicit addressing, indicating the intended recipient(s) of verbal instructions (cf. ex. 1–3). As the conductor stands in front of the musicians in a distinctive position (cf. Kendon 2010), they can direct attention and signal the next actions within the multiparty setting. They make use of a 'panorama gaze' to collect and coordinate the attention of the musicians (cf. ex. 3). The conductors' gaze directions are particularly emphasized as a powerful tool for structuring interaction, not only during turns-at-talk but also during musical performance (cf. ex. 2 and 3).

In the analysed chamber music lesson example, gaze directions of the participants are employed to negotiate turn-taking, turn allocation, and participant status, influencing who gains attention and speaking rights (cf. ex. 4). The analysis shows that gaze is more effective in determining next-speaker selection when combined with verbal or multimodal techniques (cf. also Auer 2018). Furthermore, it could be observed that participation roles are not distributed as strictly as in orchestra rehearsals. By her embodied behaviour (including speech and gaze), the clarinettist is able to allocate the turn to the pianist and to direct the attention of all participants to his objection regarding the tempo of the movement. Here, the participants' orientation in space also plays a role: within the circular F-formation (Kendon 1990) in the chamber music lesson, the participants can face each other and establish mutual gaze. In orchestra rehearsals, by contrast, the conductor faces the musicians and vice versa; the musicians sit side-by-side. This arrangement implies a lower frequency of mutual gaze between the musicians compared to chamber music lessons (cf. also Auer/Zima 2021: 401; but see ex. 3, where the first violist turns around and speaks with his colleagues).

Additionally, the analysis of the four examples has illustrated that in orchestra rehearsals, the musicians respond to the conductors' cues, displaying reciprocity and engagement

through their actions and gaze behaviour. However, once the addressing action of the conductors concludes, the musicians shift their gaze away (or to the score), indicating a transition to a new participation framework or activity (e.g., moving from an instruction turn to a musical performance). Gaze here has a monitoring function: the musicians, even if not addressed (cf. ex. 2 and 3), monitor the conductor, display reciprocity by gaze and embodied actions, and adjust their behaviour accordingly.

This monitoring function of gaze is also observable in chamber music lessons. The cellist, as unaddressed participant within the conversation, first between the clarinettist and the professor, and later between the pianist and the professor, displays engagement in the course of action by directing his gaze to the current speaker. This observation confirms the findings by Holler/Kendrick (2015): unaddressed participants in multi-party interaction follow the interaction of the primary participants. Further analysis, for example, by integrating mobile eye tracking glasses, is needed to gain more insights into the gaze behaviour of unaddressed (but also addressed) participants in multi-person interaction settings, such as orchestra rehearsal and chamber music lessons.

The analysis of examples 2 and 3 has further shown that the conductor's eye movements can convey technical instructions related to music, guide the musicians, and signal important cues during musical performance. Whereas opened eyes (and eye directions) are used to collect attention, closed eyes are a sign of retracting attention ('I'm concentrating') but can also convey expressive meanings related to the music as part of multimodal metaphors (often in combination with illustrative gestures, cf. ex. 3).

The analysis also revealed that in both musical settings, the score serves as a shared focal point, ensuring joint attention among participants. The participants in orchestra rehearsals and chamber music lessons refer verbally and through their gaze direction to the score as an integrated object in the interaction. They constantly shift their attention between different parties (speaker, co-interactant) and the score. By directing the gaze to the score as an object, they display engagement in the course of action. This observation is in contrast to what has been argued by Rossano (2013: 310): "[...] looking at an object may be considered a sign of disattending the conversation." In musical settings, looking at the score does rather mean the opposite, i.e., the attending of the conversation, and it is not treated as marked or salient by the participants. It can thus be described as default gaze pattern, i.e., as default 'home position' (Sacks/Schegloff 2002) for the eyes.

The present contribution has provided a first glimpse of the intricate connections between speech, gaze, gesture, and body language in orchestrating instructional interactions within musical performance settings. Methodologically, it is mandatory to go beyond single (or several) case analyses and follow a principle of exhaustive analysis of participants' gaze behaviour in the data collection. Based on and extended from the lexicon of the conductor's face developed by Poggi/Ansani (2022), a sort of 'gazeionary' (Poggi/Ansani 2022: 2016) could be elaborated, integrating multiple forms and functions of gaze in musical settings, employed by all participants (conductor, musicians, professor,

students). Another aim may be the investigation which effects gaze behaviour does have on musical performance and if this depends on the extent in which conductors in orchestra rehearsals and also professors in chamber music lessons make use of their gaze lexicon. This study on functions of gaze in musical performance settings is thus only one part of a much larger puzzle, but hopefully an incentive to dig deeper into the (multimodal) complexities of this topic.

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