Social Interaction

Video-Based Studies of Human Sociality

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Stand-Alone Facial Gestures as Other-Initiations of Repair

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Sarah I. Stolle[1], & Martin Pfeiffer[2]*

[1]Vrije Universiteit Brussel, [2]University of Potsdam

Abstract

Based on video recordings of everyday German face-to-face interaction, we focus on how eyebrow furrows, eyebrow raising, eye widening, and freeze-look are used without co-occurring verbal repair initiations to indicate a problem in another participant's turn. Unlike verbal initiations, facial other-initiations of repair only minimally disrupt the progressivity of interaction, since they can be used simultaneously with the emerging trouble-source turn and do not initiate a side sequence. Through their early positioning and their sequentially unobstructive character, facial other-initiations of repair systematically provide an occasion for the speaker of the repairable turn to carry out self-repair at the next transition-relevance place. Our findings point to the necessity of reconsidering traditional conceptualizations of the repair system in order to take bodily repair-initiating practices into account.

Keywords: facial gestures, facial expressions, other-initiation of repair, preference for progressivity, multimodal interaction

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* Corresponding author. *E-mail address:* Sarah.Isabell.Stolle@vub.be

1. Introduction

Conversational repair, which deals with "problems in speaking, hearing, and understanding" (Schegloff et al., 1977: 361), has almost exclusively been studied with a focus on verbal practices. The large body of work concerned with other-initiation of repair (hereafter OIR) has identified various verbal formats in a range of different languages used to indicate a problem in a co-participant's turn (Dingemanse et al., 2014; Couper-Kuhlen and Selting, 2018: Chapter 3). Generally, these formats differ in their ability to locate the source of trouble (Drew, 1997). Based on this observation, "restricted" OIR formats, which locate the repairable and specify the type of problem associated with it, can be distinguished from "open" OIR formats, which signal a problem but do not provide information about the location of the repairable and the kind of trouble encountered (Dingemanse and Enfield, 2015: 105, see also Dingemanse et al., 2014). Prior research has shown that repair-initiating participants (hereafter *initiators*) use OIRs in order to deal with different types of problems (Selting, 1987; Couper-Kuhlen and Selting, 2018: Chapter 3; Mostovaia and Pfeiffer, 2023), such as problems of hearing, problems of reference, problems of understanding, and problems of expectation or acceptability.

The aim of this paper is to carry out a first systematic investigation of how facial gestures without co-occurring verbal OIRs are used as other-initiations of repair in a spoken language, in this case, German. We will refer to this type of OIR as *facial other-initiation of repair* (hereafter FOIR*).* In our exploratory study, we address the following questions:

- Which facial gestures are used as FOIRs?

- Can FOIRs be categorized as open or restricted OIR formats?

- Are FOIRs used to indicate specific types of problems?

- What are the interactional functions of FOIRs compared to verbal OIRs?

In Section 2, we briefly present the current state of research on other-initiation of repair from a multimodal perspective before describing the data and methodological approach in Section 3. In the following sections, we turn to our empirical observations. We show how eyebrow furrows (4.1), eyebrow raising (4.2), eye widening (4.3), and the freeze-look (4.4) are used to initiate repair and analyze the position of FOIRs within longer repair sequences involving a series of OIRs (Section 5). Section 6 draws a conclusion and raises questions for future research.

2. Current State of Research

Recently, conversation analytic research has started to explore the relevance of bodily-visual resources for other-initiation of repair. The majority of this work analyzes the co-occurrence of hand gestures, head and body movements, or facial displays with verbal repair initiations (Olsher, 2008; Rasmussen, 2014; Oloff, 2018; Hömke, 2018). Only a few papers examine purely embodied OIRs (Seo and Koshik, 2010; Mortensen, 2016). Furthermore, Hömke (2018) offers a quantitative approach to the analysis of facial gestures in OIRs (see also Enfield et al., 2013, and Kendrick, 2015, for brief quantitative analyses of multimodal OIRs). Apart from Rasmussen (2014) and Hömke (2018), these previous studies have predominantly focused on OIRs in second language interactions, either within a classroom or tutoring setting (Olsher, 2008; Seo and Koshik, 2010; Mortensen, 2016) or during international meetings in a business or customs context (Oloff, 2018).

Both Olsher (2008) and Mortensen (2016) analyze the role of hand gestures in OIR, with Olsher (2008) taking into account gestures that accompany verbal repair initiations, while Mortensen (2016) primarily focuses on the stand-alone gesture of 'cupping the hand behind the ear.' Both analyses show that these multimodal OIRs are directed towards problems of hearing and understanding. However, Mortensen's (2016) results further suggest that the 'cupping-gesture' signals problems of hearing that do not relate to a lack of acoustic perception, but rather a lack of orientation of the initiator (the teacher) to the speaker.

Similarly, Seo and Koshik (2010) examine the occurrence of forward movements of the head ('head poke') and body as well as head turns to initiate repair without verbal resources. They show that these OIRs mostly indicate problems of understanding and that head turns can be used additionally by teachers "in a pedagogically specific manner, as a prompt to self-correct an error" (Seo and Koshik, 2010: 2237). This observation and the results of Mortensen (2016) point towards the "possible existence of category-bound or professional repair initiation practices" (Oloff, 2018: 31) that become visible in the investigated settings (see also Li and Wang, 2023/this issue, who describe raised eyebrows and a head tilt as a repair-initiating practice produced by teachers in second-language classrooms).

Rasmussen (2014) also investigates the occurrence of forward movements of the body during OIR, albeit focusing on initiations that also use verbal resources (see also Li, 2014). Rasmussen demonstrates that the movement occurs either prior to or simultaneous with the beginning of the verbal OIR. This finding is supported by the analysis of Oloff (2018), who examines eyebrow raises and head lifts as well as 'freeze-displays,' during which the body is maintained in a 'frozen' position. With respect to the co-occurrence of verbal and bodily-visual resources, Oloff (2018) highlights that verbal OIRs are "preceded, accompanied and followed by different embodied displays" (p. 38). Therefore, bodily-visual resources allow participants to deal with sources of trouble in a more dynamic way. As embodied

OIRs can occur and be maintained during the turn of another participant, they enable the initiator to hold an OIR until the trouble source is successfully repaired (Seo and Koshik, 2010: 2237).

Among the previous studies on spoken languages, only Hömke (2018) and Oloff (2018) look at the role of facial gestures such as eyebrow furrows and raises in OIR. Both studies show that facial gestures alone can function as OIRs yet do not provide a more in-depth analysis. In contrast, several studies on sign languages have focused increasingly on facial gestures as OIRs (Manrique and Enfield, 2015; Manrique, 2016, 2017; Skedsmo, 2020). In her work on the Argentine Sign Language, Manrique (2016) distinguishes explicit and implicit OIRs, which also involve different facial gestures. Explicit OIRs consist, among other resources, of visible facial gestures such as eyebrow raises and furrows. According to Manrique (2016), these facial repair initiations have the advantage of being minimal in their articulatory effort. Moreover, they provide "faster, more direct and easier access by both the producer and recipient" (Manrique, 2016: 5), since signers usually direct their attention towards the face rather than the hands of their interlocutor.

Besides explicit strategies to initiate repair, Manrique (2016: 2) also examines an implicit ("off-record") way to produce an OIR, termed "freeze-look" (also Manrique and Enfield, 2015; Levinson, 2015), which is comparable to the freeze-display described by Oloff (2018) for spoken language. During a freeze-look, the repair-initiating participant holds the entire body, including a neutral facial expression, in a static position while gazing at the speaker of the problematic turn and withholding a response. This posture is "maintained until either the person upgrades by using an explicit repair initiator, or until the signer of the trouble source can fix the problem" (Manrique, 2016: 27). Thus, a freeze-look is similar to a "hold" (Floyd et al., 2016: 176), in which only a part of the body is held still, since both displays orient towards the "ongoing unresolved status" (Floyd et al., 2016: 174) of the source of trouble. Importantly, a hold can refer to both the holding of an explicit facial gesture like an eyebrow furrow or raise (see also Clift and Rossi, 2023/this issue) as well as to the holding of a neutral facial expression, hence to an implicit strategy of initiating repair. In the following, we will adopt Manrique's (2016) distinction between explicit and implicit OIRs to analyze the FOIRs occurring in our data.

3. Data and Method

Our analysis is based on 21 audio-visual recordings of German everyday conversations among students who are friends, with 2 to 4 participants per conversation. We searched the data for FOIRs, that is, explicit facial gestures without co-occurring verbal resources, as well as freeze-looks treated as other-initiations of repair. Although freeze-looks as implicit OIRs involve not only 'holding' the face, but also the entire body, we decided to include them in our exploratory study in order to

present as broad a picture as possible. Freeze-looks could be easily identified by the marked cessation of all bodily movements as well as their occurrence at positions where a response had been made relevant and was notably absent from the 'freezing' participant. We also included sequences in which the respective FOIR was used by a repair initiator in a series of successive other-initiation practices that deal with the same problem. For instance, if a facial display was not successful in initiating repair and it was followed by a verbal initiation practice, the sequence was included in our collection. As our data show, FOIRs do not occur frequently.[1] In a total of 20 hours and 34 minutes of interaction, we identified 38 sequences in which a participant's facial gesture is oriented to as an indication of trouble in another participant's turn. We transcribed the sequences according to the *Gesprächsanalytisches Transkriptionssystem 2* (hereafter GAT 2), a system for transcribing talk-in-interaction (Selting et al., 2009), in combination with Mondada's (2019) conventions for multimodal transcription.

We use a multimodal conversation analytic approach (Mondada, 2013), aiming to reconstruct the action that an initiator's bodily behavior—most often explicit facial gestures, less frequently freeze-looks—accomplishes from the participants' perspectives. The orientation towards the status of the facial display as a repair-initiating practice can either be displayed by the repairer in that they carry out self-repair on their own prior talk after having perceived the freeze-look (as evidenced by the repairer's gaze direction towards the initiator's face), or this orientation can be displayed by the initiator. If a facial gesture does not prompt the co-participant to carry out self-repair, the initiator can use another practice, for instance, a verbal initiation, assigning the status of an unsuccessful other-initiation of repair to the preceding facial gesture. Sometimes, both participants treat the facial display as making repair relevant, for instance, when the repairer starts to provide a repair solution in overlap with a subsequent verbal repair initiation.

We categorized each FOIR according to its form and analyzed the co-occurring bodily behavior, such as head and body movements, and the gaze behavior by the initiator and the repairer before, during, and after the repair-initiating facial gesture. We also analyzed the position of the FOIR relative to the emerging problematic turn-constructional unit (TCU), in particular with regard to the repairable, since it has been suggested that the timing of FOIRs might help the co-participant locate the repairable (Hömke, 2018: 91).

In a subsequent step, we analyzed the type of problem being dealt with. On the one hand, the repair solution (e.g., elaborating, specifying the reference, clarifying a contradiction, etc.) provided evidence for how the repairer had understood the initiator's indication of trouble. Sometimes, the current speaker additionally displayed an orientation towards a potential problem in his or her emerging turn before a co-participant produced a repair initiation. In particular, this happened

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[1] However, they are more frequent compared to Kendrick (2015: 178), who only observed one facial other-initiation of repair (a frown) in 6 hours and 51 minutes of conversations in English.

with regard to upcoming problems of reference, which are often prospectively oriented to with indexicality marking and hesitation strategies (Auer, 1984). On the other hand, the verbal other-initiation practices that were occasionally used after an unsuccessful facial repair initiation displayed a categorization of the problem by the initiator. These different types of evidence were used to reconstruct the relationship between each facial gesture and the type of problem being dealt with, aiming to investigate whether certain types of facial gestures indicate certain types of problems.

4. Facial Gestures as Other-Initiations of Repair

In the following, we present four different types of FOIR that we find in our data, namely eyebrow furrows, eyebrow raising, eye widening, and freeze-look. We demonstrate that these practices are treated as other-initiations of repair, prompting the speaker of the troublesome turn to carry out self-repair. Our observations suggest that FOIRs constitute restricted requests, at least in our German data. Firstly, FOIRs invite certain types of clarification. This indicates that they are not treated as open requests, but as restricted requests specifying what kind of problem needs to be repaired. Secondly, FOIRs seem not to target whole turns, but parts of turns. They are systematically positioned in the vicinity of the repairable, which suggests that they provide the co-participant with information about the location of the problematic part of the current turn.

4.1 Eyebrow furrows

In psychological research, eyebrow furrows have traditionally been described as expressing anger and other negative emotions (Ekman, 1993). Regarding their relevance for social interaction, they play an important role in marking questions and signaling a need for clarification (Hömke, 2018), projecting upcoming problematic utterances in conversation (Kaukomaa et al., 2014; Nota et al., 2021), or retrospectively contextualizing an action as problematic (Heller et al., 2023/this issue). Furthermore, eyebrow furrows have been shown to be used as other-initiations of repair in both spoken and sign languages (Enfield et al., 2013; Manrique, 2016; Hömke, 2018).

In line with findings by Hömke (2018: 87), the eyebrow furrow is the most common FOIR in our data (it is used in 25 of 38 sequences) and is treated as a restricted request. Quite often, the eyebrow furrow co-occurs with squinted eyes and less often with pressed or puckered lips. It is sometimes accompanied by movements of the head forward or to the side, similar to those described by Seo and Koshik (2010). Rarely, the initiator leans forward while producing the furrow (Rasmussen, 2014; Floyd et al., 2016). In all 25 cases in our data, the furrow occurs in the context of mutual gaze between initiator and repairer. Eyebrow furrows are used equally often to initiate repair of problems of reference and problems of

understanding. In contrast, in our collection there are no examples of furrows used to indicate problems of expectation or problems of hearing.

Our first extract shows an eyebrow furrow used to indicate a problem of understanding in a conversation between two friends, Kira and Marc. Kira talks about the mulled wine they are about to taste, which she has made herself.

Extract 1. *"Little extra" (zk8, 00:51–01:05)*

```
01 KIR   ich weiß nich wie WARM des is,
         I don't know how hot this is
02       ÄHM-
         ehm
03       du musst auch jetzt WEINprobe machen,=
         you've got to do some wine tasting now as well
04 KIR   =also (.)
         well
05       +*wir haben nämlich einen *kleinen ZUsatz reinge+macht?*
           we  have  namely  a     little extra  added
         we have added a little extra
   kir   +looks down--------------------------------->+looks at MRC-->10
   mrc    *looks at KIR---------->*looks down----------------->*looks at KIR-->09
06       (0.5) •#(0.6)
   mrc         •furrows eyebrows-->09
   fig         #fig1a/1b
07 KIR   Δich            Δ#hab  näm
          I               have name(ly)
         I have actually
   mrc   Δcompresses lipsΔstarts smiling-->08

   fig                   #fig2a/2b
08       !DOCH! s_schmeckt aber GUT;Δ
         but it does taste good
   mrc                           -->Δ
09 MRC   <<lachend>• nee* is nur wie du_s SAGSCH;=
         no, it's just how you've been saying it
   mrc         -->• -->*
10       =%n_kleinen %ZUsatz      %isch so:->%+
         a little extra is somehow
   mrc    %..........%wiggles hands%,,,,,,,,,,%
   kir                                -->+
11 KIR   naja;=also ich hab  nämlich ähm hoLUNderlikör    gemacht,
         well  PTC I   have namely  uhm elderberry liqueur made
         Well I have actually made elderberry liqueur
```
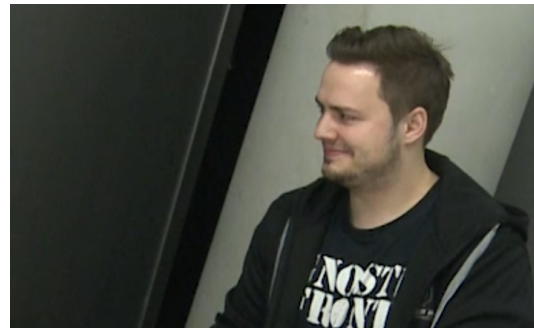

#fig. 1a

#fig. 2a

#fig. 1b (Zoom)

#fig. 2b (Zoom)

At the end of line 05, in which Kira tells Marc that she "added a little extra" to the mulled wine, Marc establishes mutual gaze by looking at Kira, but does not provide a continuer or a nod in response to Kira's completed TCU (see the pause of 0.5 sec in l. 06). This "withholding of a continuer" (Auer, 1984: 644) can be taken as a first indication of trouble in Kira's turn. After the pause, Marc produces an eyebrow furrow (l. 06, Fig. 1a/1b). This prompts Kira to expand her turn, which she then interrupts within a word (*ich hab näm*, 'I have actual(ly),' l. 07). Line 11, in which Kira repeats this structure and continues it until completion (*ich hab nämlich ähm hoLUNderlikör gemacht*, 'I have actually made elderberry liqueur'), provides evidence for the status of the syntactic fragment in line 07 as the beginning of an elaboration. The repetition in line 11 suggests that the interrupted word in line 07 is the adverb *nämlich* ('actually', lit. 'namely'), which establishes an explicative relationship with the preceding TCU in line 05. Thus, Kira orients towards Marc's eyebrow furrow as an initiation of repair indicating a problem of understanding. As Marc alters his facial gesture, adding compressed lips and a smile to the eyebrow furrow (l. 07, Fig. 2a/2b), Kira breaks off her elaboration. She responds to the altered facial gesture with the strongly accented disagreement token *!DOCH!*, which is commonly used to disconfirm a negatively formatted proposition (Deppermann et al., submitted), followed by a positive assessment of the mulled wine's taste (*s_schmeckt aber GUT*; 'but it does taste good,' l. 08). With this utterance, Kira treats Marc's altered facial gesture, which exhibits features of the expression of disgust (Ekman, 1979), as expressing a negative affective stance towards the mulled wine's presumed taste. With regard to the repairable, Kira's disagreeing response also shows that she has understood Marc's altered facial gesture as making visible what his problem of understanding might consist of: The adding of "a little extra" can be interpreted as having had a negative effect on (the taste of) the mulled wine. Kira's counter-assessment prompts Marc to provide an account for taking a negative stance. He explains that he had a problem with how she formulated that she added an extra ingredient (*is nur wie du_s SAGSCH*; 'it's just how you've been saying it,' l. 09). In his account, Marc repeats the part of Kira's turn he had trouble understanding, that is, the nominal phrase referring to the extra ingredient (*n_kleinen ZUsatz isch so:-* 'a little extra is somehow,' l. 10), making the repairable targeted by his FOIR explicit. He leaves the predicative construction incomplete, that is, he does not explicitly evaluate

Kira's lexical choice. However, he uses a 'hand-wiggle gesture' that underscores the problematic status of her formulation. Following his turn, Kira continues her previously interrupted utterance and explains that she added some elderberry liqueur to the wine, which eventually solves the problem of understanding.

4.2 Eyebrow raises

In psychological research (Darwin, 1872; Ekman, 1979) as well as in conversation analytic studies (Heath et al., 2012; Pfeiffer, 2016), eyebrow raising has been analyzed as a display of surprise. Dix and Groß (2023/this issue) show that raising both eyebrows can function as a change-of-state marker in social interaction. While an eyebrow move such as a flash can indicate the assessment of new information, the holding of raised eyebrows can be deployed as a visual newsmark that displays surprise or astonishment.

In line with these observations, Manrique (2016) and Hömke (2018) observe that eyebrow raises are frequently involved in OIR. While Manrique (2016: 4–5) describes this gesture as an open request making repetition relevant, Hömke (2018) finds that eyebrow raises are used more frequently in the context of restricted offers and requests. Furthermore, Hömke (2018) did not find any eyebrow raises in his data that initiated a repair without co-occurring verbal resources (pp. 76, 87).

In contrast to Hömke (2018), our data include examples of eyebrow raises as FOIRs (see also Li and Wang, 2023/this issue, for a similar observation). Compared to furrows, however, eyebrow raises are used less often as a practice for initiating repair. We only found four instances in our data, each of them occurring in the context of mutual gaze: Three eyebrow raises indicate a problem of reference and one signals a problem of understanding. Two of the eyebrow raises co-occur with closed eyes; one example of raised eyebrows accompanies each type of problem.

In the following extract (2), we show an eyebrow raise without closed eyes that indicates a problem of reference. In the sequence preceding the extract, Rieke asks Konstantin where his Italian surname "comes from." At the beginning of the transcript, he starts to talk about a recent encounter with two Italians who provided him with information about the geographic origin of his surname.

Extract 2. *"TV host" (Be, 17:25–17:48)*

```
01 KON    ges*tern hab ich zwei italiEner in ∆#{city name} getroffen;=
              Yesterday I met two Italians in {city name}
    kon       *looks at RIE-->
    rie                                        ∆looks at KON-->
    fig                                        #fig3
02        =die meinten *uah wie ∆HEIßen wo kommen SIE denn her,∆
              they were like hey what's your name where are you from
    kon             -->*looks away-->04
    rie                       ∆puts down glass, looks away    ∆looks at KON-->09
03        un dann meinten sie aber wohl eher NORDitalien;=
              And then they actually thought more northern Italy
04        =und *die bEiden eben (-) *aus_m SÜden-=
              and both of them came from the South
    kon        *looks at RIE          *looks away-->08
05        =der eine aus aPUlien-=
              one from Apulia
06        =und der andere aus siZIlien,
              and the other from Sicily
07        gemeint ja_jA:  da   gibt_s ja  irgendwie so_nen coolen ENtertainer-
              meant    yes-yes there exists PTC somehow  such-a cool   entertainer
              they were like yeah somehow there is this cool entertainer
08        *ja (.) geNAU. (0.1)•#(0.5)
              well (.) yeah (-)
    kon   *looks at RIE-->12
    rie                      •raises eyebrows-->
    fig                      #fig4a/4b
09        enzo (.)~ROda;= •∆#
    kon          ~slightly shakes his head-->
    rie                -->•furrows eyebrows-->12
    rie                -->∆looks to the side into mid-space-->11
    fig                  #fig5a/5b

10        =des is irgendwie so_n~ [°hh              ]
              he is sort of a
    kon                       -->~
11 RIE                          ∆[sagt mir NICHTS.]
                                   doesn't ring a bell
    rie                          ∆looks down-->
12 KON    te VAU *moderator; hh° •∆
              tv host
    kon        -->*looks away-->
    rie                        -->•
    rie                        -->∆looks at FLO-->>
13        *kEnn ich aber AUCH *nich;
              but I don't know him myself

    kon   *looks at RIE        *looks away-->>
```

#fig. 3

#fig. 4a

#fig. 5a

#fig. 4b (Zoom)   #fig. 5b (Zoom)

During the encounter, the two Italians ask Konstantin about his name and where he is from (l. 02). His story suggests that they infer from his name that his origins must be in northern Italy (l. 03), whereas they are both from southern regions (l. 04–06). In line 07, Konstantin uses direct reported speech to quote the basis for the Italians' inference that he must be from the north. They mention an "entertainer" who is apparently from the north, implying that he shares Konstantin's surname (*gemeint ja_jA: da gibt_s ja irgendwie so_nen coolen ENtertainer-* 'they were like yeah somehow there is this cool entertainer,' l. 07). Note that Konstantin uses the indexical particle *so* in combination with the indefinite article *nen* to mark the referential expression as potentially problematic for the recipients (Auer, 1981). It is unclear whether Konstantin is using this marker for the recipients of his story, or whether he is simply quoting the Italians, reporting how they referred to the entertainer when talking to him. However, he also uses the adverb *irgend-wie* ('somehow'), a hedge deployed by speakers to qualify their own statement. It is unlikely that this hedge is part of the quote of what the Italians actually said. It would seem contradictory for them to use a hedge relativizing their certainty when referring to a celebrity they know, but whom the person they were talking to has never heard about (l. 13). Rather, the hedge suggests that Konstantin is 'doing reference' from his own (less certain) perspective and for his recipients during the reported speech. The fact that Konstantin, against the preference for minimization (Sacks and Schegloff, 1979), does not use the entertainer's proper name, but instead an (indexicality marked) indefinite noun phrase, provides further evidence for Konstantin's orientation to his recipients' epistemic background. He seems to assume that his recipients—like himself—do not know this person and are therefore unable to identify the referent. Although the level final intonation in line 07 projects turn continuation, the ascription of this lack of knowledge may also be the reason why Konstantin directs his gaze to Rieke in the beginning of line 08 and uses the particles *ja (.) geNAU* ('yes exactly') to exit his turn. By doing so, he treats his story as complete and adequate for what it is supposed to do—provide Rieke with information about the origin of his surname.

During the following pause, however, Rieke, who is in a state of mutual gaze with Konstantin, indicates a problem with the story by raising her eyebrows (l. 08, Fig. 4a/4b). This leads to a turn expansion by Konstantin, who now delivers the first

and last name of the entertainer (l. 09),[2] orienting to Rieke's FOIR as indicating a problem of reference. Although Konstantin offers an unambiguous referential expression, that is, the name of the entertainer, reference cannot be established successfully. Rieke starts to frown and looks away into mid-space, moving her eyes upward and then to the left (Fig. 5a/5b), displaying a "thinking face" (Goodwin and Goodwin, 1986: 61). Her continued facial display of trouble immediately prompts another turn expansion by Konstantin (l. 10). However, Rieke expresses her non-recognition of the referent based on the proper name (*sagt mir NICHTS.*, 'doesn't ring a bell,' l. 11) before Konstantin can add another referential term providing an additional piece of information (*te VAU moderator;* 'tv host,' l. 12). Konstantin's turn expansion is marked by a slight headshake, audible breaths in and out, as well as the same hedge and indexical marker (*irgendwie so_n*, 'sort of a,' l. 10) used at the first mention of the referent. These multimodal resources contextualize his own uncertainty about the referent and treat him as difficult to identify. They already project Konstantin's following statement that he does not know this person either (*kEnn ich aber AUCH nich;* 'but I don't know him myself,' l. 13), making clear that the referent must remain unidentified and closing the sequence.

4.3 Eye widening

Just like eyebrow movements, eye widening has been described as a salient facial expression in psychological studies (Lee et al., 2013). In evolutionary terms, this movement may have been developed to directly modulate the sensory intake of our surroundings. This links to the frequent connection of eye widening with the expression of fear (Ekman et al., 2002). The widened eyes guarantee better vigilance when facing uncertainty in the direct environment and enable humans "to gather immediate information about potential threats" (Lee et al., 2013: 957).

Apart from the organismic function of securing an individual's well-being, widened eyes also fulfill communicative functions. In social interaction, eye widening often seems to be accompanied by eyebrow raises, indicating surprise or disbelief (Chovil, 1991; Nota et al., 2021) or a change-of-state involving understanding (Gudmundsen and Svennevig, 2020). Seo and Koshik (2010) also found several examples of OIR in their data in which eye widening co-occurred with other gestures, including eyebrow raises.

In our data, there are three examples of eye widening used as a FOIR, all of which indicate a problem of expectation or acceptability (Couper-Kuhlen and Selting, 2018; Selting, 1987, 1988, 1996; Svennevig, 2008). None of the examples co-occur with an eyebrow raise. In one example, the eye widening is accompanied by a pronounced and abrupt leaning backwards of the upper body, in another

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[2] Since the entertainer's name is identical to the participant's real name, it has been pseudonymized in the transcript.

example by pressed lips. Our third example is a minimal case, that is, the eye widening occurs alone, without other bodily (or verbal) resources. This extract will be presented in the following.

Karen and Monique have been talking about different animals, including fish. In line 01, Karen starts to talk about a certain species of fish that does not spawn, but instead gives birth to its offspring.

Extract 3. *"Fish babies" (Kl, 16:08–16:24)*

```
01 KAR    aber es GIBT auch-
           but there are also
02         so  fIsche Δdie •WIRKlich-
           PTC fish    that really
           those fish that really (give birth)
   kar              Δlooks at MON-->07
   mon                  •looks at KAR-->07
03         <<h>BLUBB>+FISCHchen;
               blubb     (little) fish
   mon              +starts smiling-->14
04         #<<h>BLUBB> FISCHchen;
               blubb    (little) fish
   fig     #fig6a/6b
05         *#geBÄren.    *
             give birth
   mon     *widens eyes*
   fig      #fig7a/7b
06         hasch    des  NICH gesehen;
           have-you that not  seen
           haven't you seen this
07         ~Δes gibt  ECHT   fische~•Δdie  halt-
            It exist really fish     that PTC
           there really are fish that
   kar   Δlooks down              Δlooks at MON-->14
   mon                             •looks to her right-->09
   mon   ~slightly shakes head   ~
08         in ECHT;=
           in real
           for real
09         =also in •POlen gibt_s so <<lachend>fIsche die auf jeden fall;>
           well in Poland there are fish that definitely (give birth)
   mon              •looks at KAR-->>
10         BLUBB blubb-
           blubb blubb
11         (1.1)
12 KAR     geBÄren.
           give birth
13 MON     =äh: [aber (wären)        ]
            uh but wouldn't
14 KAR        [Δ<<cresc>und dann kom]men FIsche raus.>=+
               and then fish come out
   kar        Δlooks away-->16
   mon                                      -->+
15         =und auf jEden fall war des [SO süss;          ]
            and in any case this was so cute
```

```
16 MON                                     [Δ<f>>aber wären sie] dann nich SÄUgetiere?>
                                           but wouldn't they be mammals then
   kar                                     Δlooks at MON-->18
17      (1.2)
18 KAR  ΔNEE.
        no
   kar  Δlooks away-->>
19 KAR  auf jeden fall isch da_n FISCH geschwommen,=
        in any case a fish was swimming there
20      dann kamen die BAbys raus,
        then the babies came out
```


#fig. 6a

#fig. 7a

#fig. 6b (Zoom)

#fig. 7b (Zoom)

In line 02, in which mutual gaze is established, Karen introduces this species of fish. She uses the indexical marker *so*, signaling that establishing reference may not be unproblematic for the recipient, and an indefinite plural noun phrase (*fIsche*, 'fish') modified by a relative clause with an onomatopoetic and gestural depiction of the distinguishing feature of this species, that is, how they give birth to little fish. She builds a ring with her index finger and thumb of the right hand (see Figs. 6a and 7a) and abruptly moves it downward on each *BLUBB* (l. 03 and 04). With the adverb *WIRKlich* ('really,' l. 02) at the start of the relative clause, Karen underlines the truth of the forthcoming information, framing it as potentially new and possibly hard to believe for Monique. With the finite verb *geBÄren* ('give birth,' l. 05), Karen completes both the relative clause and the referential nominal phrase it is part of. Simultaneous with the production of this verb, and therefore, adjacent to the gestural and vocal depiction of the 'process of giving birth,' Monique widens her eyes (l. 05, Fig. 7a/7b). Karen immediately treats this facial gesture as an other-initiation of repair concerning a problem of expectation or acceptability. Unlike the repair sequence involving a problem of reference in

Extract 2, the repairer does not provide a second referential expression or more information about the referent in response to the FOIR. Rather, immediately after Monique's eye widening, Karen produces a negatively formatted interrogative with falling intonation (*hasch des NICH gesehen;* 'haven't you seen this,' l. 06), presumably referring to a documentary. With this interrogative, she displays her assumption that Monique does not have any knowledge about these fish (an assumption already hinted at with *so* and *WIRKlich* before the repair initiation). Karen does not wait for a response and immediately continues her turn, treating the answer as self-evident. She orients to the eye widening as an indication that the information about the fish is unexpected, and maybe even unacceptable, for Monique. Although Karen looks down during Monique's slight headshake, which confirms the question (l. 07), and therefore may not have perceived it, the withholding of a verbal response alone can be taken as a confirmation of her assumption. In the following sequence, Karen offers a repair solution. Regarding the semantic content of her turn expansion, she more or less repeats the information already provided in lines 01–05. However, by using the expressions *ECHT* ('really,' l. 07), *in ECHT* ('for real,' l. 08), *auf jeden fall* ('definitely,' l. 09), and the modal particle *halt* (l. 07), she rephrases it in a way that emphasizes its truthfulness. Moreover, she gives additional information about the fish by mentioning their habitat (*in Polen*, 'in Poland,' l. 09), which may be seen as an attempt to strengthen the information's credibility.

However, this does not solve the problem. At the TRP in line 13—which is structurally comparable to line 05 in which repair was initiated, since it is the TRP after the second description of the 'process of giving birth'—Monique projects a dispreferred action by producing the hesitation particle *äh:* ('uh') followed by the adversative conjunction *aber* ('but'). As soon as the upcoming dispreferred action can be recognized, Karen dissolves the mutual gaze and starts a competitive turn continuation, which leads Monique to drop out and leave the floor to Karen. Karen uses the turn expansion to continue dealing with the problem. She offers an assessment of the little fish that "come out" (l. 14), referring to them as "so cute" (l. 15). The assessment, too, can be seen in the service of supporting the credibility of her story, since it claims epistemic access to—and presupposes the existence of—the assessable. Additionally, the assessment is introduced with the adverbial expression *auf jEden fall* (l. 15), the meaning of which oscillates between 'in any case' and 'definitely,' further underlining her certainty about and the accuracy of the information provided.

In overlap with the assessment and at high volume, Monique takes up the interrupted fragment from line 13 in a second attempt to gain the floor and this time is successful. She uses a polar question to challenge the substance of Karen's story by objecting that only mammals were able to give birth in the way Karen described (*aber wären sie dann nich SÄUgetiere?* 'but wouldn't they be mammals then,' l. 16). What Karen tells her seems to be in contradiction with what she knows about fish. Thus, Monique as the repair initiator makes explicit that the problem that occurred to her is indeed one of expectation and acceptability,

orienting to the type of problem in the same way as Karen, the repairer. After a pause (l. 17), Karen averts her gaze, rejects Monique's objection (*NEE.* 'no,' l. 18), and continues her story (l. 19–20). Shortly after the extract ends, they change the topic of conversation without having achieved trouble resolution.

In sum, this repair sequence shows typical features of dealing with a problem of expectation or acceptability (Couper-Kuhlen and Selting, 2018: 188, 193), with eye widening being used as a practice for indicating this type of problem. A longer sequence unfolds in which the co-participants try to resolve the contradiction between an unexpected piece of information and the initiator's background knowledge in order to reach an intersubjectively shared understanding.

4.4 Freeze-look

Sometimes, recipients who orient towards a problem in a current speaker's turn use initiation practices that are even more subtle than the facial gestures described above. One of these implicit practices is the freeze-look (see Section 2), which occurs in 10 sequences in our data. Levinson (2015: 398–399) and Manrique (2016: 27) describe the freeze-look as an open request type format, implying that the freeze-look does not tell the co-participant anything about the location and the nature of the problem in their turn. In our data, freeze-looks occur with referential problems and problems of understanding, but not with hearing problems or problems of expectation or acceptability. This raises the possibility that freeze-looks are less 'open' formats than previously thought, at least in certain languages. In our German data, freeze-looks seem to be restricted formats in the sense that they are associated with certain types of problems. Moreover, they usually occur directly after the part of the turn treated as problematic, potentially providing the speaker with information about the location of the repairable (see Extracts 4–6).

Just before the following extract (4), Gustav has told Carola that it took him a long time to learn the difference between "waist" and "hips" when he was a child. In response, Carola informs him in line 01 that it took her "forever" to understand the difference between "waist" and "belly," which leads to a problem of understanding.

Extract 4. *"Waist belly difference" (Ha_Ka_08, 06:38–06:46)*

```
01 CAR   ich hab  ewig•  gebraucht mit  taille   •*BAUCH+        •unterschied;
         I   have forever needed    with waist    belly           difference
         It took me forever (to learn) the waist belly difference
   car                                                *looks at GUS-->03
   gus                                                    +looks at CAR-->>
   gus            •moves hand with pen to chin•flips pen in hand•wraps fingers around pen-->
02       (0.7)•(0.7)
   gus      -->•freeze-look-->>
```

```
03 CAR    also ich wusste die taille ist irgendwas an der*SEIte;=
          well I knew the waist is something on the side
   car                                              -->*looks at WIL-->
04        =aber der bauch*is da ja AUCH;
          but the belly is there as well
   car              -->*looks at GUS-->>
05        (0.6)
06 GUS    JA.
          yes
```

During Carola's informing, Gustav plays around with a pen in his right hand, and both establish mutual gaze (l. 01). Towards the end of the informing and during the pause at the following TRP (l. 02), Gustav wraps his fingers around the pen and withholds a response. Then, he suddenly stops moving his fingers, remains motionless, and gazes at Carola with a freeze-look (l. 02).[3] Carola treats Gustav's freeze-look as an other-initiation of repair requesting clarification and offers a repair solution. She starts her self-repair with the consecutive connector *also* (l. 03), which can be used as a repair marker in elaborating self-repair (Pfeiffer, 2015, 2017). She provides an elaboration of her prior informing (l. 03–04), treating Gustav's freeze-look as indicating a problem of understanding what exactly her difficulty in grasping the difference between "waist" and "belly" consisted of. Carola explains that her trouble differentiating between the two terms was due to their similar and partly overlapping meanings, since both refer to a body part including "something on the side" (l. 03). After a pause (l. 05), Gustav confirms Carola's self-repair with the response token *JA* ('yes,' l. 06), treating the problem as solved and closing the sequence.

5. Facial Other-Initiations of Repair in Series of Other-Initiations of Repair

In all the extracts discussed so far, each FOIR practice chosen—eyebrow furrow, eyebrow raise, eye widening, or freeze-look—is successful in that it leads the current speaker to provide a self-repair, dealing with the part of the turn-so-far treated as repairable. However, this is not always the case. Sometimes, a participant's effort to initiate repair fails. In this case, it is likely that the participant will not content him- or herself with the unsuccessful first attempt but will continue to display an orientation to the problem, trying to initiate repair a second and even third time. This leads to the successive use of OIR practices, like in the following two extracts, Extracts 5 and 6. Regarding series of other-initiations of repair, which due to our research focus always include FOIRs in our collection, two observations can be made:

---

[3] For data protection reasons, we are not allowed to show a still of this freeze-look.

1. The initiator does not successively use the same initiation practice, but alternates.

2. There is a preference for using more implicit and unobtrusive practices (FOIR) before more explicit and obtrusive practices (verbal OIR).

Extract 5 is taken from an interaction among four friends at dinner. In line 391, Louisa suddenly changes the topic of conversation and starts talking about a "pilsner" (l. 391), which leads to a problem of reference.

Extract 5. *"Which pilsner" (Gü_Ka_05, 10:51–11:07)*

```
391 LOU   Jerry konnt nich verstehen  warum ich des +PILS    mir nich kauf;
          Jerry could not  understand why   I   the  pilsner me   not   buy
          Jerry couldn't understand why I didn't buy the pilsner
    lou                                                   +looks at DOM-->395
    dom   >>looks at LOU-->
392           Δ#(-)
    dom   -->Δfreeze-look at LOU-->395
    fig        #fig8a/8b
393 HEL   •#welches          •[PILS,]
          which pilsner
    dom   •furrows eyebrows•
    fig    #fig9a/9b
394 LOU                      [fü:r ]
          for
395           +für die (.) ich hab mir halt ΔWEGbier noch mitgenommen gehabt;
          for the (.) well I had taken a beer with me for the road
    dom                                 -->Δlooks down-->
    lou   -->+looks down-->
396       ähmΔ (0.6)DOsen+bier;
          uhm canned beer
    dom   -->Δfreeze-look at LOU-->>
    lou             -->+looks at DOM-->398
397       *(0.4)
    lou   *smiles-->398
398 DOM   welches •#PILS;   +*•
          which pilsner
    dom           •shakes head•
    lou                   -->*
    lou               -->+looks away-->400

    fig           #fig10a/10b
399 LOU   des IS doch (.) pils;=
          Isn't that a pilsner
400       =des SCH(.)+WARze,       +
          the black one
    lou             -->+looks at DOM+looks at JAS-->
401 DOM   des heißt+fünf NULL;
          It's called five zero;
    lou           -->+looks at DOM-->>
402 HEL   [ja DES;]
          yes that one
403 LOU   [ja des ]fünf NULler;
          yes the five zero;
```

#fig. 8a #fig. 9a #fig. 10a

#fig. 8b (Zoom) #fig. 9b (Zoom) #fig. 10b (Zoom)

In the beginning of the extract, Louisa tells the others that Jerry, with whom she was walking to an event, did not understand why she did not want to buy *des PILS* ('the pilsner,' l. 391). Note that she uses the definite article, which presupposes familiarity with the object referred to, to introduce a new referent that has not been mentioned before. During her turn, Louisa establishes mutual gaze with Dominik, who had already been looking at her (l. 391). Thus, Louisa primarily addresses him, requiring him to respond. However, immediately after Louisa's turn ends, Dominik adopts a freeze-look, so that a pause emerges (l. 392, Fig. 8a/8b). He does not move his face, which displays a 'neutral' expression, and keeps his body in a still position, his wine glass half lifted in front of him. He does not even swallow the sip of wine he took a moment before. By doing this freeze-look, Dominik conveys that he will not respond to Louisa. While this practice signals his ongoing recipiency, it also initiates repair, indicating that Dominik has encountered trouble with Louisa's preceding turn. As the freeze-look does not prompt her to carry out self-repair, Dominik furrows his eyebrows (l. 393, Fig. 9a/9b) while still gazing at Louisa. This facial gesture provides evidence that, firstly, Dominik treats his freeze-look as an (unsuccessful) implicit other-initiation of repair, and secondly, he reinforces his attempts to initiate repair, upgrading the initiation practice employed from an implicit to an explicit FOIR.

In contrast to Dominik, who continues to be in a state of mutual gaze with Louisa, Helena's face is not accessible to Louisa, as Helena is sitting on Louisa's left-hand side (see Fig. 9a). Helena therefore has to rely on verbal resources to indicate her need for repair. Her initiation *welches PILS* ('which pilsner,' l. 393), which starts simultaneously with Dominik's eyebrow furrow, directly locates the repairable in Louisa's turn and characterizes the trouble associated with it as a problem of reference.

In overlap with Helena's verbal repair initiation (l. 394), Louisa begins to self-repair the problematic reference, delivering further recognitionals (*WEGbier,* 'beer

for the road;' *DOsenbier,* 'a canned beer,' l. 395–396) to enable her co-partici-pants to identify the pilsner. In this example, it is unclear whether Louisa's self-repair is prompted by Dominik's facial displays, by Helena's verbal repair initia-tion, or by both. Simultaneous with Louisa's attempt to resolve the referential problem, Dominik returns to his frozen posture (l. 396, Fig. 10a/10b), which can be seen as a first indication that the trouble has not yet been resolved (Floyd et al., 2016). Dominik keeps the glass in the same position in front of him while looking at Louisa once again with a 'neutral' facial expression; Louisa starts gaz-ing towards him shortly afterwards, too, establishing mutual gaze. After a pause (l. 397), during which Louisa starts to smile, Dominik repeats Helena's preceding other-initiation, *welches PILS;* (l. 398), this time with falling intonation. He simul-taneously shakes his head, underlining his difficulty with identifying the referent. He shows Louisa that her self-repair was not successful, and that further repair is needed to help him identify the beer. While Dominik maintains his freeze-look (Fig. 10a/10b), Louisa offers another repair solution. She produces an additional referential expression (*des SCH(.)WARze,* 'the black one,' l. 400), which is try-marked by a micro pause within the word and rising final intonation. The infor-mation that the can of pilsner is black leads to Dominik's identification of the beer label (*des heißt fünf NULL;* 'it's called five zero,' l. 401). Both Louisa and Helena confirm the trouble solution (l. 402 and 403).

During this extract, Dominik uses three different OIR practices before he suc-ceeds in establishing reference. His OIRs are successively upgraded, beginning with a freeze-look, then using an eyebrow furrow, and ending with a 'question word + partial repeat' format that unequivocally points to both the trouble source and the type of problem. What is noticeable when comparing Dominik's and Hel-ena's initial OIRs is that Dominik produces his repair initiation significantly earlier than Helena. Both implicit and explicit FOIRs can be used early on, directly with the occurrence of the repairable, even while the troublesome turn is still ongoing, without interrupting the current speaker.

In contrast to Dominik, Helena does not share mutual gaze with Louisa and there-fore cannot use her facial resources to initiate a repair. Her verbal repair initiation highlights that mutual gaze—or at least speaker gaze towards the initiator—is a basic requirement for the employment of facial gestures as other-initiations of repair (see also Manrique, 2016: 31, on the importance of mutual "visual access" for maintaining intersubjectivity in sign-language interaction). It is only if these gestures are perceived by the speaker that they can function as repair initiations. This is further illustrated by Dominik's second repair initiation. After first producing a freeze-look, he maintains the mutual gaze with Louisa and upgrades this implicit initiation to an explicit facial gesture by furrowing his eyebrows. As Louisa's first self-repair does not lead to the beer being identified, Dominik upgrades his ex-plicit FOIR to a verbal format. Thus, Dominik uses verbal resources only after visual-bodily resources alone do not lead to successful repair. The more obtru-sive verbal OIR explicitly exposes the trouble source and signals forthrightly that he still cannot identify the referent. The successive upgrading of OIRs seems to

be a general pattern in other-initiated repair sequences in which FOIRs are used. This sequential trajectory from more implicit to more explicit OIRs can be observed in all the sequences of our collection in which at least one facial and one verbal OIR are employed.

The following extract, Extract 6, comes from the beginning of the same interaction, when Helena has not yet joined her friends. Preceding the extract, Dominik has started speaking about a party he recently attended. In line 53, he tells Jasmin, who is sitting in the middle (Figs. 11–13), that the people he met there might also be known to her. As in Extract 5, a complex repair sequence evolves in order to deal with a problem of reference.

Extract 6. *"Which mate of Frank" (Gü_Ka_01, 01:08–01:29)*

```
53 DOM    und dann kamen noch persOnen die du vielleicht NOCH kennst und so,
          and then also came people who you maybe know as well,
54 JAS    WEN,
          who
55 DOM    äh: (.) keine ahnung unter anderem der der Δ*kumpel da von FRANK,
          uh (.) no idea among others the the mate of Frank
   jas                                                Δlooks at DOM-->62
   dom                                                 *looks at JAS-->62
56        +(-)
   jas    +furrows eyebrows slightly-->
57        diese:r+(-)#WIE heißt der;
          this (-) what's his name
   jas         -->+furrows eyebrows more strongly-->60
   fig            #fig11a/11b
58        (-)
59        der mit den langen HAAren,
          the one with the long hair,
60        <<p>mit den langen lockigen HAAren,>+
          <<p>with the long curly hair,>
   jas                                       -->+
61        •#(2.0)       •
   jas    •freeze-look•
   fig     #fig12a/12b
62 JAS    welcher (.) kumpel Δvon frank* mit den langen lockigen HAAren,
          which (.) mate of Frank with the long curly hair,
   jas                     -->Δlooks down-->65
   dom                           -->*looks away-->
63 DOM    also der äh hat immer [so_n*ZOPF,       ]
          well he uh has always a ponytail
   dom                              -->*looks at LOU-->
64 LOU                 <<f>[da gibts VIEle;>]
          there a many
65 DOM    =der hat immer *so_nΔZOPF,
          he always has a ponytail,
   jas                     -->Δlooks at DOM-->68
   dom            -->*looks at JAS-->68
66        =un so: (.) so braune hellbraune HAAre?
          and kind of (.) kind of brown light-brown hair
67 LOU    wollt grad SAgen;
          I was gonna say
68        nichΔ•#STRICK*mütze;=oder,Δ
          not knitted cap right
   jas     -->Δlooks to the side    Δlooks at DOM-->>
   jas        •furrows eyebrows-->
   dom            -->*looks at LOU-->>
   fig        #fig13a/13b
```

```
69 JAS    <<p>hm:;>•

   jas            -->•
```
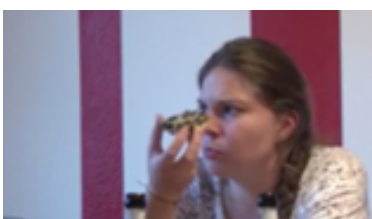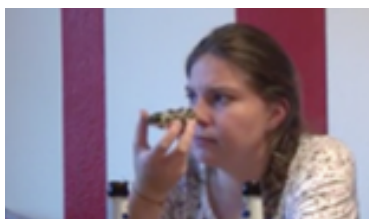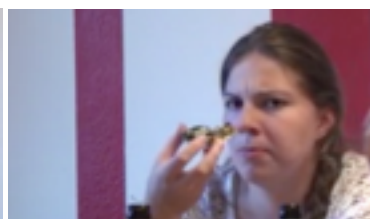
#fig. 11a

#fig. 12a

#fig. 13a

#fig. 11b (Zoom)

#fig. 12b (Zoom)

#fig. 13b (Zoom)

Following Dominik's informing, Jasmin produces the interrogative pronoun *WEN* ('who,' l. 54), requesting him to specify who the people mentioned previously are. First, Dominik shows that he is unsure (*äh: (.) keine ahnung*, 'uh no idea,' l. 55). Then, he selects one person who was present and refers to him as *der der kumpel da von FRANK,* ('the mate of Frank,' l. 55), further displaying uncertainty by recycling the article and using the indexicality marker consisting of the definite article *der* and the adverb *da* (lit. 'there') positioned after the noun *kumpel* ('mate'). Just before this referential expression, Dominik and Jasmin establish mutual gaze. After the referential expression, that is, immediately following Dominik's production of the proper name *FRANK*, Jasmin starts to furrow her eyebrows slightly (l. 56). Through this facial gesture, Jasmin shows at the earliest possible moment that she has trouble recognizing the referent, directly after the occurrence of the source of trouble. This provides the occasion for Dominik to continue his turn and possibly add further referential expressions to enable the identification of the referent without a verbal OIR, which would initiate a side sequence. Dominik treats this eyebrow furrow as a FOIR making relevant specification of the reference. After a short pause (l. 56), Dominik expands his turn, producing the lengthened indexicality marker *diese:r* (lit. 'this,' l. 57), which projects another nominal referential term (possibly a proper name). At this moment, while still maintaining mutual gaze with Dominik, Jasmin intensifies her facial gesture, starting to furrow her eyebrows more intensely (l. 57, Fig. 11a/11b). This intensified FOIR indicates that the problem persists. In response, Dominik, instead of providing the person's name or another referential expression as projected, starts to produce the interrogative *WIE heißt der;* ('what's his name,' l. 57). Hence, he signals that he does not remember the central identifying feature of the person—his name—and invites Jasmin to engage in the search for it.

What follows after another short pause (l. 58) provides further evidence that Dominik understands Jasmin's continued eyebrow furrow as a FOIR. Despite his attempt to make Jasmin contribute more actively to identifying the person in question (l. 57), he does not wait until she takes the floor. Instead, Dominik carries out a self-repair by continuing his turn and providing further reference forms. He syntactically expands the interrogative by repeating the referential pronoun *der* ('the one,' l. 59) and adding a prepositional attribute to it (*mit den langen HAAren,* 'with the long hair,' l. 59). While Jasmin still maintains her facial display, Dominik recycles the prepositional attribute in order to insert the adjective *lockigen* ('curly,' l. 60). Thus, during his expansion in lines 59 to 60, Dominik offers a repair solution by providing two additional features of the person to be identified.

As Dominik's expansion of the interrogative reaches its completion, Jasmin stops furrowing her eyebrows and adopts a freeze-look (l. 61, Fig. 12a/12b): She completely stops moving and does not chew or swallow her food anymore, keeping her hand with a slice of pizza mid-air in front of her while continuing to gaze at Dominik. A pause of two seconds emerges (l. 61). Jasmin's bodily display and her withholding of a response as well as Dominik's non-continuation of the turn show that, firstly, Jasmin still has not recognized the referent and, secondly, Dominik is not prepared to continue to 'take the lead' in making efforts to solve the problem at this point. Rather, his waiting is equivalent to insisting on having made Jasmin's assistance relevant. Thus, Dominik's explicit request for assistance 'competes' with Jasmin's sustained implicit display of trouble designed to elicit further self-repair from him.

Eventually, Jasmin takes the floor. However, as already projected by her freeze-look, she does not actively contribute to the trouble solution by providing a candidate reference. Rather, Jasmin ends her frozen posture and initiates repair again, this time using a verbal format. By combining a question word with repetitions of all the referential expressions previously provided by Dominik (*welcher (.) kumpel von frank mit den langen lockigen HAAren,* 'which mate of Frank with the long curly hair,' l. 62), Jasmin explicitly assigns the status of repairables to the repeated parts of Dominik's turn. Moreover, she highlights that the identifying features offered so far are not sufficient to successfully establish reference. Note that during her verbal OIR, both Jasmin and Dominik avert their gazes. The dissolution of mutual gaze is possible at this point since, in contrast to her prior FOIRs, looking at each other's faces is not required for the verbal repair initiation to function.

In response to Jasmin's verbal OIR, Dominik starts another repair solution introduced by the repair marker *also* (l. 63) (Pfeiffer, 2015, 2017). The additional referential expression he offers, however, overlaps with Louisa's assertion *da gibts VIEle* ('there are many,' l. 64), which marks the "nonuniqueness" (Sidnell, 2007: 307) and, therefore, insufficiency of Dominik's description so far. While reestablishing mutual gaze with Jasmin, Dominik reformulates the referential expression to the clearer *der hat immer so_n ZOPF,* ('he always has a ponytail,' l. 65) and

adds a second referential expression: *und so: (.) so braune hellbraune HAAre?* ('and kind of (.) kind of brown light-brown hair,' l. 66). Louisa reacts to this description with a request for confirmation: *nich STRICKmütze;=oder,* ('not knitted cap right, l. 68) introduced by *wollt grad SAgen;* ('I was gonna say,' l. 67), displaying that she, as well, is orienting to the referential problem and trying to contribute to its resolution. During Louisa's turn, Jasmin furrows her eyebrows again and looks to her left into mid-space (l. 68, Fig. 13a/13b), producing a "thinking face" (Goodwin and Goodwin, 1986: 61). This bodily display and the particle *hm:;* with falling intonation (l. 69) contextualize her persistent effort but inability to identify the referent. In this sequence, the problem remains unsolved.

In this extract, as in Extract 5, a FOIR is used before a verbal OIR. In both examples, repair is only initiated verbally after previous attempts to solve the referential problem using facial initiations have failed. Both examples, therefore, demonstrate a successive upgrading from FOIRs, which can include both implicit and explicit displays of trouble, to a verbal OIR as a final practice to prompt a successful repair solution. As shown in Extract 6, the attempts to repair the source of trouble are abandoned after the explicit verbal repair initiation, a restricted request, does not lead to the referent being recognized. This suggests that restricted verbal OIRs constitute the pinnacle of the sequential trajectory of successive other-initiations involving bodily and verbal practices.

The deployment of facial before verbal repair initiations seems to mirror a preference for implicit and sequentially unobstructive other-initiations of repair before more explicit and sequentially obstructive other-initiations. In contrast to a verbal OIR, facial OIRs avoid initiating a side sequence, but instead lead to self-repair within the current turn. As can be observed in Extract 6, the series of OIRs starts with a subtle eyebrow furrow, followed by a stronger furrow that is maintained. By holding her facial gesture from lines 57 to 60, Jasmin is able to continuously but subtly mark her need for repair, providing Dominik with the opportunity to add further referential expressions without interrupting his current turn. It is only after an additional FOIR—a freeze-look—does not lead to successful repair that Jasmin uses a verbal OIR to produce a last repair initiation.

6. Conclusion and Outlook

In this paper, we have shown how facial gestures alone, that is, without co-occurring verbal means, can be used to initiate repair during another participant's turn. Although they do not occur frequently, facial gestures constitute an OIR practice that is systematically deployed for certain interactional purposes.

Our central findings are the following:

1. The FOIRs identified in our data comprise explicit initiations, namely eyebrow furrows, eyebrow raises, and eye widening, as well as implicit initiations, that is, freeze-looks. These facial displays can only initiate repair

if they are perceived by the co-participant. Therefore, FOIRs regularly require mutual gaze between the speaker of the problematic turn and the initiator. If the speaker of the repairable turn is not looking at the initiator, he or she must rely on a verbal OIR (see Extract 5).

2. The FOIRs in our data seem to constitute restricted requests. In line with Hömke's assumption (2018: 91), FOIRs appear to support the identification of the trouble source in the current speaker's turn through adjacent positioning. That is, the initiator regularly begins to produce the facial display directly after the repairable has appeared. If the repairable occurs in mid-TCU, the FOIR is produced simultaneously with the emerging TCU. If the repairable is located at the end of the TCU, which is predominantly the case in the examples shown,[4] the beginning of the FOIR is positioned at the TRP.

3. Furthermore, FOIRs seem to signal specific types of problems (Oloff, 2018: 41, who makes a similar observation on facial displays accompanying verbal initiations). Depending on the type of facial display, they invite different types of self-repair: The eyebrow furrow, eyebrow raise, and freeze-look seem to point to problems of reference or understanding and invite semantic elaboration or referential specification. Eye widening, in contrast, seems to indicate a problem of expectation or acceptability and invites an explanation or clarification of a contradiction. However, due to the small number of examples our study is based on, particularly regarding eyebrow raising and eye widening, it must be left to future research to investigate whether these initiation practices are also used to indicate other kinds of trouble beyond the ones described in this study.

4. Our analysis shows that if several OIRs are needed, facial and verbal other-initiations of repair occupy different sequential positions. The succession of different OIR practices we observed corresponds to the "natural ordering" described by Schegloff et al. (1977: 369), according to which the OIR practices are used "in order of increasing strength." There seems to be a preference for using more implicit and unobstructive practices systematically before more explicit and obstructive ones. This may be due to the subtle character of FOIRs, which keep the effort of a repair initiation as well as the "social costs" (Levinson, 2012: 20) for the participants of the conversation as low as possible. The sequential trajectory of OIR practices can be schematized as follows, while, of course, not necessarily every practice is used in each series of OIRs: Withholding of continuer/response → freeze-look → explicit facial gesture → verbal OIR. The earliest and most subtle resource seems to be the withholding of a continuer or response (Auer, 1984: 644). In our data, this is used to signal

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[4] This confirms earlier observations by Auer (1984: 642), who shows that the TCU-final position is preferred for referential expressions "which may be prone to be problematic."

non-identification of a referent or non-understanding of a part of the turn (Extract 1). This strategy is followed by freeze-looks, which are slightly less implicit (Extract 5). Freeze-looks generally occur before explicit facial gestures, namely eyebrow furrow, eyebrow raising, and eye widening (Extracts 4 and 5). Thus, although freeze-looks can also occur after explicit facial initiations (Extract 6), our result differs from that of Oloff (2018), who found that freeze displays that co-occur with verbal OIRs tend not to be used in first initiations. Regarding explicit FOIR, less intense versions of a facial gesture tend to precede more intense versions (see the slight vs. strong eyebrow furrow in Extract 6). Verbal OIR, the most explicit practice, tends to be used only after the more implicit practices have not been successful in prompting trouble solution (Extracts 5 and 6).

5. As we have shown, FOIRs are particularly suitable for early repair initiations. Since they rely on bodily-visual modality, they can be positioned adjacently to the repairable without interrupting the current speaker. FOIRs do not initiate a side sequence for dealing with the repairable, but rather indicate trouble in a sequentially unobstructive way. They systematically provide an occasion for transition space repair,[5] enabling repair solution within the current turn. Thus, FOIRs show an orientation to the preference for progressivity (Schegloff, 1979), since they only minimally disrupt the progressivity of interaction.[6] In the repair sequences analyzed in this paper, which involve a conflict between the principles of intersubjectivity and progressivity (Heritage, 2007), FOIRs seem to be ideal practices for reconciling efforts to secure mutual understanding with a maximum of sequence progression. Unlike verbal OIRs, FOIRs do not implement a 'next turn,' at least not in the sense of verbal turn-taking. Therefore, they constitute an other-initiation practice not considered in the classical description of the repair system (Schegloff et al., 1977; Schegloff, 2000) in which the next turn following the trouble-source turn is the earliest possibility for OIR. Our results point to the difficulty of integrating observations of bodily practices such as FOIRs, which are clearly part of the sequential structure of interaction, into the traditional conceptualization of the repair system, as well as into the model of turn-taking it is based on.[7] In order to adequately describe purely bodily repair-initiating practices, it is necessary to take into account that, firstly, there are instances of other-initiated self-repair that are, just like self-initiated self-repair, sequentially unobstructive and only minimally disruptive for the

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[5] Theoretically, it is possible that FOIRs produced simultaneously with an emerging TCU may lead to same-turn self-repair. However, no such case could be identified in our data.

[6] See also Peräkylä and Ruusuvuori (2012: 66) who make a similar observation regarding the use of "facial pursuits."

[7] See also Dingemanse and Floyd (2014: 466) on the "persistent problem of how to approach elements other than spoken turns within the turn-taking system".

progressivity of interaction. Secondly, the "repair-initiation opportunity space" (Schegloff et al., 1977: 375) for OIR must be conceptualized in a more flexible way, that is, as extending into the current speaker's turn.

As FOIRs are infrequent phenomena, the fundamental question arises as to the contexts in which they occur: When do speakers select a FOIR as first repair initiation? And, vice versa, what are the contexts in which verbal other-initiation practices are employed, alone or in co-occurrence with bodily means, without using FOIRs first? Our analysis has shown that FOIRs do not occur with problems of hearing. However, other relevant contexts remain to be identified.

Some of the resources analyzed in this contribution, for instance, eyebrow furrow and freeze-look, have also been found to have similar functions in other languages. It therefore seems plausible that the generic conditions of human face-to-face interaction have led to the emergence of FOIRs in many, if not all, social communities. However, this still needs to be determined, as does the question of the extent to which cultural variation plays a role. Further research on different languages is needed in order to advance our understanding of how multimodal resources work together in dealing with problems in interaction.

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