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Assessing Interactional Competence:
Identifying Candidate Criterial Features for L2 Repair Skills

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Contents

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List of Abbreviations

CA	Conversation Analysis
CA-SLA	Conversation Analysis for Second Language Acquisition
CEFR	Common European Framework of Reference for Languages
CC	communicative competence
DCT	discourse-completion task
EFL	English as a Foreign Language
FPP	first pair part
IC	interactional competence
IL	Interactional Linguistics
L1	first language
L2	second (i.e., additional) language
NTPP	next-turn proof procedure
OIOR	other-initiated other-repair
OIR	other-initiation of repair
OISR	other-initiated self-repair
SIOR	self-initiated other-repair
SIR	self-initiation of repair
SISR	self-initiated self-repair
SLA	Second Language Acquisition
SPP	second pair part
TCU	turn-constructional unit
TRP	transition-relevance place

List of Tables

List of Figures

1 Introduction

When language teachers are asked about their opinion on what constitutes a *competent speaker* of an L2, it is not at all uncommon for them to point to a learner's overall fluency of speech production, ability to produce (mostly) grammatically correct utterances, lack of an accent, capacity to talk freely about a range of topics, or general confidence while speaking (Goh & Burns 2012: 50). This provides important insight into how language teaching professionals tend to conceive of the notion of 'speaking' (in a second language), and into what they think teaching needs to focus on in order to foster the development of 'speaking competence'. The latter is still commonly understood as one of "the four 'macro' skills in language teaching" (Burns & Siegel 2018: 2; see also Council of Europe 2018: 32), and therefore a cornerstone of becoming a competent language user.

To date, it is a widely held view that a competent language learner is recognisable through the high "quality of their spoken language" (Goh & Burns 2012: 42) – that is, through the production of utterances that are largely

- complex (i.e., "elaborate, … structured, … maybe more efficient and less circumlocuitous …, more consistent with input data, and more native-like"; Skehan 1996: 47);
- accurate (i.e., "native-like through [their] … rule-governed nature"; ibid.: 46) and
- fluent (i.e., "produce[d] … at relatively normal rates"; ibid.: 48).

Hence, teachers often adopt this very perspective when presented with learner talk like that in Extract 1 below, which is representative of the data I will discuss in this book. Leo, who produces the utterance I will focus on (lines 01-10), is a 7th-grade learner of English as a Foreign Language (EFL[1]) whose first language (L1) is German. Together with a classmate (Maik), he is carrying out a role-play task. The learners are supposed to act out an argument regarding a fictitious TV night (for more details on the data, see

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[1] In this book, I interchangeably refer to my learners as 'EFL learners' and 'L2 learners/speakers of English'. By referring to English as their 'L2', I mean to indicate that the learners acquire English as an additional language after their L1 (see Saville-Troike & Barto 2017: 2), not that this additional language is their 'second language' in the narrow sense, i.e. a language that is being acquired by necessity, to enable participation in everyday social life within one's own community (:4). My participants acquire English as a 'foreign language', "one not widely used in the learners' immediate social context" (ibid.). On a similar note, although I do refer to my participants as 'learners' throughout the study, I do not claim that they invariably orient to themselves as such.

Chapter 4). Previously to this extract, Leo's partner started the role-play. Now, Leo makes a suggestion on what to watch.

Extract 1: look sailing (SSL_191108_5, 2:46-3:15)
```
01   Leo:   i'd like to: äh_look SAIling,=
02          =°h becau(se) there are ? ä:h (0.9)
03          there are ACtion;
04          °h h° ä:hm: one sailor fall in the WAter;=
05          =or a boat is turn Over-
06          °h (a:nd/ä:h) today i(th) the: (0.2) Ocean race,
07          the biggest (.) race on the EARTH,
08          (1.1)
09   Leo:   (and) (0.8)
10          i like to_d look THIS.
11          (0.8)
12   Mai:   but i think that nobody knows SAIling-
```

Many practicing teachers, if they were asked to assess Leo's performance in terms of the speaking competence he displays in this extract, would likely make mention of

- reduced fluency: Leo frequently produces 'dysfluency markers' (Lambert & Kormos 2014: 610; Lennon 1990: 388) such as unfilled pauses (e.g. lines 02, 06-09), filled pauses (or, hesitation markers; e.g. `äh`, lines 01, 02; `ä:hm:`, line 04), verbatim repetitions of elements of talk (e.g. `there are`, lines 02-03) and hesitations (e.g., vowel lengthening such as in line 01, `to:`, line 06 `the:`; breathing as in lines 04, 06). In consequence, his speech is produced haltingly rather than at a "relatively normal rate" (Skehan 1996: 48).

- limited accuracy: Leo produces talk that does not fully linguistically resemble L2 utterances[2]. In lines 01 and 10, he uses `look` as the main verb. While that is an L2 lexical item, semantically 'watch' would have been the fitting choice in both contexts. Furthermore, the causal clause he produces lacks subject-verb

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[2] When I utilise 'L1(-like)' and 'L2(-like)' as terms in my study, I do so from the speaker's perspective. In other words, when I comment on 'talk that linguistically resembles L2 utterances', or 'linguistically L2-like' talk, I mean to refer to instances in which a learner uses an L2, and meets linguistic norms of that L2. I reserve 'L1-like' for those cases in which learners produce L2 utterances exhibiting features of their own L1 – for instance, when one of my L1 German EFL learners produces an English utterance featuring (aspects of) typical German word order.

concord (*`there are ACtion`, line 03), as does the clause in line 04 (*`one sailor fall`). In line 05, he does not utilise the grammatically fitting form of the main verb ('turned'), and in line 10, no modal verb is audibly produced prior to the main verb. Potentially, Leo may even be heard to make slight pronunciation mistakes by not fully articulating the item 'because' (line 02) and producing an interdental fricative instead of an alveolar one in line 06.

Depending on the relevance of native-likeness (see Skehan 1996: 47) for that characteristic, Leo's utterance may also be treated as lacking in complexity, even though it is not only fairly extended, but also syntactically complex: His argument in line 01 is combined with an adverbial clause of reason, followed by a set of coordinated clauses.

When teacher trainees in my seminars are presented with such data for the first time, they are given to gravitate to these kinds of observations (course participants, personal communication, November, 2021). With complexity, accuracy and fluency being treated as centrally relevant aspects of speaking competence, the general verdict of such an initial review tends to be that a learner producing this kind of data – Leo in this case – would be awarded a middling overall 'speaking' score (ibid.).

Such an approach to the assessment of speaking competence commonly is based on a specific understanding of the notion of (L2) speaking, namely that it is the product of a set of cognitive processes (Goh & Burns 2012: 42). From that point of view, second language acquisition, and the development of speaking competence, centres around the automatisation of processes such as conceptualising, formulating and articulating utterances (ibid.: 37-38; see also Levelt 1993). It would follow that the assessment of speaking competence focuses on those aspects of a learner's performance that index the degree of automatisation they have already achieved. Dysfluency markers and deviations from L2 linguistic norms are useful to that end: Their appearance can be taken as an indication that learners lack the "adequate cognitive resources" (Goh & Burns 2012: 42) needed for producing fluent and accurate L2 talk, and thus as evidence that too many processes involved in speaking still require *conscious* control (Gass et al. 2020: 301). In this understanding, then, Leo's constricted accuracy and fluency, as well as the potential restrictions to complexity, indicate less-than-complete automatisation, and thus limited speaking competence. Consequently, teaching speaking and speaking competence would mean to support learners in reaching further automatisation, and thus reduce dysfluencies and inaccuracies.

However, there is a growing awareness that such views on speaking and speaking competence are overly restricted, and thus would dangerously limit the scope of language teaching and testing in general, and that of speaking as a 'macro' skill in particular. Treating the ability to produce native-like utterances (Skehan 1996: 46) as the main display for speaking competence implicates that this ability is both crucial to, and potentially *sufficient* for, achieving understandability. However, it has been noted that solely because learners display that they have acquired "linguistic competence" (as conceptualised by Chomsky 1966: 11) in the L2, they cannot automatically be considered competent speakers (or, more generally, users) of that language. Rather, for the past decades, there has been a growing appreciation in pedagogic research and practice that the raison d'être of any language is to enable communication and participation in social life. Recognising this primary purpose for language use, broadened conceptualisations of speaking competence have become predominant, initially ones incorporating the notion of *communicative competence* (as conceptualised by Canale & Swain 1980; Canale 1983; Hymes 1972; see section 1.1.1). Following these views, the development of speaking competence commonly is thought to centre around gaining and extending the ability "to produce utterances that are grammatically accurate, easy for listeners to process, *and contextually appropriate and acceptable*" (Goh & Burns 2012: 51, emphasis mine). Accuracy, fluency and complexity of utterances therefore still play an important role for the assessment of speaking competence. Equally relevant, however, are other aspects of performance: Those that display the degree to which a learner is able to choose which information to share, and how to formulate an utterance, in accordance with the communicative setting, including the topic at hand (ibid.: 52).

Yet, it continues to be a common conceptualisation of 'speaking' that it is the product of cognitive processes, and the notion of speaking competence correspondingly stays limited (see also Huth 2021: 360). To date, it remains a widely held belief that 'dysfluencies' (Goh & Burns 2012: 52) such as pauses (filled and unfilled), repeats and other hesitation phenomena indicate what a language learner, at present, is *not able to do*. The 'dysfluency markers' occurring in Leo's utterance in Extract 1 (reproduced here as Extract 1') may, however, also be analysed from an altogether different perspective, as resources which Leo uses to indicate that he is currently attempting to *repair* his talk, to deal with problems of speaking that prevent him from continuing and completing his utterance. Taking such a point of view reveals an additional aspect

to consider when assessing speaking competence, one commonly neglected thus far, namely the *interactional* skills exhibited by a learner.

Extract 1': look sailing (SSL_191108_5, 2:46-3:15)

```
01   Leo:   i'd like to: äh_look SAIling,=
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05          =or a boat is turn Over-
06          °h (a:nd/ä:h) today i(th) the: (0.2) Ocean race,
07          the biggest (.) race on the EARTH,
08          (1.1)
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10          i like to_d look THIS.
11          (0.8)
12   Mai:   but i think that nobody knows SAIling-
```

Close to the beginning of his turn, Leo runs into a first issue of speaking. At a point where a main verb is clearly expectable next (line 01), he starts suspending the progress of his ongoing unit, first by lengthening the particle, and then by producing a hesitation marker (äh). Notably, he quickly resolves this matter, going on to produce an L2 item and subsequently completing the first part of his utterance. Similarly, when starting the explanation for his suggestion (line 02), he halts the production of his utterance. This halt lasts longer, featuring a lengthened hesitation marker (ä:h) and a very noticeable unfilled pause. Once again, however, he is able to resolve the underlying issue, recycling the clause beginning and then completing the ongoing unit by producing a previously missing lexical item (Action, line 03). Although he appears to face a brief issue with getting the next part of his utterance started (see the breathing and hesitation marker at the beginning of line 04), after this delay he produces a full set of two clauses with no further hesitation. There are other such instances in this extract, but for a first impression, this analysis shall suffice (for further discussion of this extract, see section 5.4.4.1).

Approaching Leo's performance from this perspective allows a shift away from considering which limits to his speaking competence he displays, and towards recognition of his burgeoning skills. While hitches in talking do undoubtedly recur in his utterance, it is notable that he is always able to deal with his problems in a fairly timely

manner, without ever encountering a threat of actual communicative breakdown. Furthermore, although it could be claimed that Leo's lack of self-correction of the non-L2-like aspects of his utterance expresses that he is unaware of them, what can also be observed is that Maik (see the beginning of his response in line 12) does not show any indication that Leo's 'inaccuracies' inhibit the understandability of his turn. Arguably, then, Leo focuses on repairing those issues that actually matter for purposes of communication.

In short, Leo's use of hesitation phenomena may indeed also be understood to display an already fairly sophisticated skill: He shows clearly that he is able to deal with (i.e., 'repair') problems of speaking as he encounters them, thus preventing threats to the understandability of his talk. In point of fact, such *repair skills* constitute one of the central skills any language user needs in order to successfully participate in social interaction: Without them, interactants lack the means for resolving issues with producing or comprehending utterances (see Chapter 3). The pervasiveness of hesitation phenomena in both L1 and L2 talk (ibid.) shows that regardless of what language a speaker uses for interaction, the potential for such threats to mutual understanding is omnipresent. In consequence, repair is both a ubiquitous and ubiquitously relevant interactional task. However, repair skills, and other aspects of the *interactional competence* necessary to successfully accomplish generic interactional tasks (such as orderly speaker change; see section 1.1.3), are as yet only rarely included in the currently prevalent conceptualisations of speaking competence, and consequently remain largely unconsidered in language teaching and assessment (see section 1.1.4). This relates to the fact that conceiving of speaking as a cognitive process entails thinking of utterances as the product, and thus responsibility, of individual speakers. However, it is precisely the ability to collaborate with co-participants that allows the use of language within what has been identified as "its natural habitat: … social interaction" (Couper-Kuhlen & Selting 2018: 3; see also Pekarek Doehler 2021: 420), and which should be the actual main goal of language learning.

That in mind, 'speaking competence' requires re-conceptualisation. It should come to include the skills a learner needs to acquire to become able to successfully *inter*-act with other speakers of the L2. Correspondingly, when a learner is assessed with regard to speaking competence, this should also entail a review of their performance for displays of (second language) interactional competence. To promote this, in my study I

aim to identify candidate criterial features that may be used for such assessment, focusing on one aspect of L2 interactional competence, L2 *repair skills*. I will approach this objective through qualitative and inductive analyses of learner performances based on conversation-analytic methodology. Thus, I will also test the feasibility of such an emic approach to determining "potential … markers" (Roever & Dai 2021: 34) of interactional competence.

As will become apparent later on, this book is written for two kinds of audiences. It is concerned with the conceptualisation, operationalisation, development and assessment of L2 interactional competence, and of L2 repair skills in particular. On the one hand, I very much hope to interest practitioners of L2 teaching and testing in these topics, and to provide them with a set of features that may serve as candidate criteria for the formative and summative assessment of L2 repair skills in and outside of the language classroom. At the same time, this book is of course intended for conversation analysts interested in the subject matter.

1.1 The Concept of 'Interactional Competence'
1.1.1 The Genesis of Interactional Competence

Broadly defined, interactional competence (IC) encompasses the sum of the skills which participants in interaction require to be able to successfully accomplish recurrent interactional tasks. While the first mention of the term commonly is traced back to the 1980s, much of the conceptual work is more recent, particularly so the discussions on the role(s) IC plays in the process of language learning. Before looking in more detail at how IC may be defined and operationalised, I will briefly summarise the genesis of the concept. However, to fully understand how it came about, it is necessary to first reflect on a related notion (i.e., communicative competence), and its shortcomings.

Communicative competence (CC) has been a central construct in foreign language pedagogy ever since the 1970s (Savignon 2018: 1). At that time, prevailing pedagogic approaches based in behaviourist assumptions on language learning, such as the audio-lingual method, were questioned in favour of alternative approaches (Kramsch 2006: 249; Savignon 2018: 2). A central factor in that development was the introduction of a more cognitive conceptualisation of language acquisition and ability proposed by Chomsky (Savignon 2018: 2). However, through the 'communicative revolution'

(Kramsch 2006: 249), a more functional understanding of the nature of language also gained significant traction (ibid.: 250; Savignon 2018: 1-2). This resulted in a teaching approach that considers the "ability to communicate" to be the central aim of second language learning, and thus the major focus for teaching and assessment (Savignon 2018: 1).

The notion of CC underlies this development. Hymes (1972: 277) notes that mere linguistic competence, conceptualised by Chomsky (1966) as the innate "ability of a speaker to understand an arbitrary sentence of his language and to produce an appropriate sentence on a given occasion" (:10), does not suffice to turn someone into a competent speaker of a language. Rather, learners also need to "acquire … competence as to when to speak, when not, and as to what to talk about with whom, when, where, in what manner … [to] become … able to accomplish a repertoire of speech acts" (Hymes 1972: 277). Such 'communicative competence' can be defined as an "individual capacity to acquire and use this social knowledge in different social situations" (Hall 2018: 27), or more succinctly as the 'rules of use' (Hymes 1972: 279) any speaker of a language must have access to and be able to implement.

The concept was further developed by Canale & Swain (1980), who propose three main components of CC:

- grammatical competence, the knowledge of linguistic items and structures (:29);
- sociolinguistic competence, itself consisting of "sociocultural rules of use and rules of discourse" (:30) which allow for the production of contextually fitting utterances and their combination with each other (ibid.);
- strategic competence, made up of strategies for dealing with communicative problems, including the underdevelopment of any of the other component competences (ibid.).

Canale (1983) introduced a fourth component, that of discourse competence (e.g. Hall & Pekarek Doehler 2011: 3). It encompasses "mastery of how to combine grammatical forms and meanings to achieve a unified spoken or written text in different genres" (Canale 1983: 9).

Yet, while CC includes the notion of 'discourse', it is understood as a competence located within the individual (e.g. Galaczi 2014: 553; Hall 2018: 27; Hall & Pekarek Doehler 2011: 4; Ikeda 2017: 10-11), and thus does not necessarily entail that a learner is able to successfully *interact* (Ikeda 2017: 10) with other speakers of the L2. CC

merely encompasses an individual's ability to act within a communicative context, and not the skills they need to participate in social exchanges (ibid.: 11). The ability to successfully partake in *inter*-action is, however, a crucial skill for L2 learners to develop, and therefore something that should be a main concern of language teaching (and assessment). Therefore, the notion of *interactional competence* was introduced.[3]

Kramsch (1986) recurrently is cited as having made the first notable mention of the term 'interactional competence' (e.g. Galaczi 2014: 553; Hall 2018: 29; Walsh 2013: 47). While she does not directly define it, she does provide some indication as to what it is that IC entails – and what it does not. Recognising the same shortcomings of traditional understandings of language competence I noted in the previous section, she criticises the 'proficiency movement' – proponents of a language teaching approach based on proficiency guidelines which then had recently been published in the US (Kramsch 1987: 355) – for their assumption that "successful communication will take place if the learners have the required proficiency, i.e., if they know how to put their point across appropriately, precisely, and correctly, and with the required degree of fluency" (ibid.: 370). She remarks that such a view is not only problematic because it perpetuates the long-standing misconception held by both learners and teaching practitioners that linguistic skills are the central factor in mastering a language (ibid.: 369; see also Walsh 2013: 47). Additionally, focus on accuracy implicitly proposes that the target co-participant is a monolingual speaker of the L2, and thus implicates that 'native speaker' competence is the teaching goal (Kramsch 1986: 369). Overall, Kramsch (1986) expresses the need to recognise that language proficiency does not (automatically) equal IC (ibid.), and that if language teaching is meant to enable learners to successfully interact in other languages than their L1 (:367), it must first be understood what facilitates and inhibits successful interaction (:369).

In the decades since Kramsch's (1986) seminal paper, much of the conceptual work on IC has been carried out within research frameworks subscribing to the notion that language primarily serves as a means for social interaction. In particular, Conversation Analysis (an approach interested in studying the systematic organisations underlying

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[3] Of course, to argue that IC is a concept that should be given due consideration in pedagogic approaches to second and foreign language teaching does not at all entail a rejection of the relevance of CC. Quite the contrary, IC sometimes is conceptualised as a possible additional component of CC (see, e.g., Hall 1995: 58, fn. 3; cf., however, Pekarek Doehler 2021: 420). Kasper (2006) similarly notes that IC does not replace, but expands on, the competencies that language teaching should foster (:87).

orderly social interaction; see section 2.1.1) constitutes one of the "[i]ntellectual roots" (Hall 2018: 26-29) of IC as it is understood today. Unsurprisingly, another is Hymes' ethnography of communication (ibid.: 26-27), an approach dedicated to the study of communicative competence and of 'speech events' that are central to particular speech communities (ibid.: 27; Mitchell et al. 2013: 269). Recent years have seen an increasing interest in the notion of IC, occasioned by the growing realisation that it does not only constitute an object, but also a precondition of language learning: It has been noted that language learning takes place in, is achieved through, and therefore is inseparably linked with, social interaction (Hall 2018: 25; Pekarek Doehler & Pochon-Berger 2011: 206; Walsh 2013: 46). This idea is not all too compatible with the aforementioned individualistic nature of CC (Hırçın Çoban & Sert 2020: 65; Youn 2013: 15). Currently, there is a lively debate on how IC is to be conceptualised and operationalised, accompanied by a growing body of research concerning itself with the investigation, and investigability, of (L2) IC, as well as with how to make the results of such research accessible for, and usable by, practitioners. Since these matters are part of the conceptual fundament of this study, I will summarise central points in the following.

1.1.2 Defining Interactional Competence

Defining IC is a less than straightforward endeavour, likely in reflection of its aforementioned 'intellectual roots' (Hall 2018) which "emphasise variability and universality, respectively" (Waring 2018: 57). At present, there are two main approaches to the matter: 1) Conceptualising IC as the knowledge of, and ability to utilise, language-independent organisational principles and norms that underlie any instance of social interaction and 2) understanding IC as the sum of (language-sensitive) methods for achieving interactional aims.

A major proponent of the first approach is Hall (2018). She defines IC as "the common sense knowledge … of all ordinary members of society" (ibid.: 28), and "the universal infrastructure underlying social interaction to which we as human beings orient to produce social order" (:30; see also Hall 2019: 86). In her understanding, IC is a universal requirement for the very ability to interact, and displayed through the utilisation of conventional practices, or 'methods' (Hall 2018: 31; Hall 2019: 86). This, she notes, is why IC can be considered a 'competence', something that is generally associated with "permanence, and universality" (Hall 2019: 86; see also Hall 2018:

18

33). Similar definitions are indicated elsewhere (e.g. Hall & Pekarek Doehler 2011: 1; Kasper 2006: 86; Walsh 2013: 47; Waring 2018: 58). At first glance, Kecskes' (2019) discussion of the term suggests an aligning conceptualisation. In his understanding, IC entails the "ability to deploy interactional resources (turn-taking, repair, boundaries, speech acts, etc.) through available linguistic resources as needed by the speaker/hearer to express their communicative intentions in actual situational contexts" (ibid.: 69). However, he clearly distances himself from the more 'contemporary' understandings of IC as "a mutually created construct by interlocutors [sic!]" (ibid.: 74), and instead ascribes it to the individual (ibid.). Further differences between the understanding of the term promoted by Kecskes (2019) and that by Hall (2018, 2019) become apparent upon considering the components of IC proposed by Kecskes (2019) – basic and adapted IC. Kecskes defines basic IC as the "knowledge of the principled ways in which utterances/actions can be discursively linked, or fitted to each other, to achieve interaction" (2019: 70), which thus appears close to what Hall (2018) calls 'universal interactional competence' (:31). However, while Hall (2018) maintains that universal IC is acquired in childhood (:28), together with L1 linguistic competence, Kecskes (2019) claims that basic IC is an "inherent feature of human beings" (:70) and a precondition for acquiring L1 IC (and any subsequent types of adapted IC; ibid.: 70-71). In this book, I will not subscribe to such cognitively oriented conceptualisations of IC. Neither will I be interested in so-called 'professional IC' (Nguyen 2011: 176, 199), referring to the ability to successfully participate in specific kinds of interaction (e.g., Classroom Interactional Competence as proposed by Walsh 2013: 46).

Rather, I am focusing on IC as it is conceptualised by Pekarek Doehler (2018) and others: as the "members' practices or 'methods' (i.e. systematic procedures) for organising social interaction" (:5; see Kasper & Wagner 2011: 118; Pekarek Doehler & Pochon-Berger 2011: 207, 2015: 235 for similar definitions). The generic organisations underlying successful interaction (i.e., IC as understood by Hall 2018, 2019; see section 2.3 for an overview) commonly are considered (quasi-) universal and thus (largely) language-independent. However, the specific practices that participants draw on to accomplish interactional aims (i.e., to deal with any of the recurrent interactional 'problems' in order to maintain smooth social interaction) are language-sensitive: They are highly reliant on, for instance, the resources provided by a language, and thus

make up a central object of L2 learning (Betz & Huth 2014: 147; see also Barraja-Rohan 1997: 72, Kasper & Wagner 2011: 119).[4]

The development of (L2) IC in the understanding promoted by Pekarek Doehler (2018) constitutes one of the central interests of research within the framework of Conversation Analysis for Second Language Acquisition (:4; see section 2.1.3). To date, existing research (e.g. Pekarek Doehler & Pochon-Berger 2015: 235) has helped ascertain that language users do not merely transfer L1 practices into the L2, but rather gradually 'recalibrate' IC. As a result, they develop inventories of practices which progressively approach methods utilised by L1 speakers of the language being learnt (Pekarek Doehler 2018: 6; see also Pekarek Doehler & Pochon-Berger 2011: 237). Broadening those inventories enables learners to utilise the practices available to them in an increasingly context-sensitive fashion (Hall & Pekarek Doehler 2011: 7; see also Nguyen 2011: 174; Pekarek Doehler & Pochon-Berger 2011: 206-209, 237; Walsh 2013: 49).

There is disagreement as to whether the development of L2 IC is concurrent with, or independent from, the development of L2 language proficiency. Galaczi (2014) argues that as learners progress regarding their linguistic skills, cognitive processes of speech production require less attentional effort, thus freeing up the learners to focus increasingly on contributing to co-constructed interaction (:572). Plough et al. (2018), summarising their special issue, make similar observations, but take care to point out that while the two sets of skills might develop simultaneously, they are independent of each other. Thus, L2 IC may compensate for low-level proficiency, and low-level L2 IC is problematic regardless of the extent of a learner's language ability (ibid.: 441-442). In quite a number of studies, this independence is further stressed. As mentioned, Kramsch (1986) posits that high-level proficiency does not at all entail high-level IC (:370), and that there are no preconditions regarding language skills that need to be met for the teaching of interactional skills (:368). A separation of the development of linguistic and interactional ability is similarly noted elsewhere (Betz & Huth 2014:

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[4] Hall (2018) agrees that learning an L2 necessitates the acquisition of an inventory of "variable, L2-specific resources" (:33) which can be utilised for interactional purposes. However, she proposes that rather than use the term 'competence' to refer to both "the target and means of learning" (ibid.; cf. Kasper 2006: 87; Kasper & Wagner 2011: 119), 'interactional repertoire' may better reflect the individuality as well as the potential for development and change over time inherent in the notion of IC as proposed by Pekarek Doehler and others (ibid.: 33-34; see also Hall 2019: 86-87).

147-148; Kasper 2006: 87; Pekarek Doehler & Pochon-Berger 2011: 237). Ultimately, the precise relationship between these two types of ability remains an empirical question, even more so since changes in language learners' conduct over time may not always be clearly attributable to either of them. As Roever & Dai (2021) explain,

> the issue of differentiating between IC and speaking, or proficiency in general, quickly becomes a chicken-and-egg question. Longitudinal studies on L2 IC development document L2 speakers' changing methods or interactional patterns but it is difficult to tease apart how much of those changes are attributable to increase in IC or increase in general proficiency (:32)

Even so, it has been noted that longitudinal studies offer valuable insight into the development of L2 IC, as they can "foreground the practices for interaction at different points in time and … show evidence of change in these practices from which learning can be inferred" (Hellermann 2011: 150; see also Pekarek Doehler & Pochon-Berger 2011: 209-210). However, when investigating potential developmental trajectories of L2 IC, it must be kept in mind that its components (i.e., the various *interactional skills*) do not necessarily develop in a linear and continuative fashion (e.g. Firth & Wagner 2007: 812; Hall 2018: 34).

1.1.3 Operationalising Interactional Competence

To operationalise IC, researchers tend to draw on the generic organisations (e.g., turn-taking organisation, sequence organisation; for an overview, see section 2.3) described by conversation-analytic research as the 'infrastructure' underlying successful social interaction – either directly so (e.g. Hall & Pekarek Doehler 2011: 1-2; Kasper & Wagner 2011: 118-119; Waring 2018: 58) or by providing a list of interactional skills that clearly correspond to them. Kasper (2006) does the latter in her well-quoted list which encompasses the abilities

> - to understand and produce social actions in their sequential contexts
> - to take turns at talk in an organized fashion
> - to format actions and turns, and construct epistemic and affective stance …
> by drawing on different types of semiotic resources (linguistic, nonverbal, nonvocal), including register-specific resources
> - to repair problems in speaking, hearing, and understanding
> - to co-construct social and discursive identities through sequence organization, actions-in-interaction and semiotic resources …

> - to recognize and produce boundaries between activities, including transitions
> from states of contact to absence of contact … and transitions between activ-
> ities during continued contact (:86)

In that vein, L2 IC can be understood as a set of inventories of practices that L2 speakers are able to draw on in order to deal with what Schegloff (2007: xiv) has identified as the generic interactional problems facing all participants – as the sum of practices they can use to accomplish orderly turn-taking, sequence organisation, action formation and ascription, repair and overall structural organisation (see also Kramsch 1986: 367; Walsh 2013: 47) when interacting in their L2. Beyond that, additional interactional skills are proposed elsewhere (e.g. Waring 2018: 58), one of which may be topic management (Hall 1995: 39).

An alternative operationalisation of IC is proposed by Markee (2008). In his view, the development of L2 IC "includes but goes beyond learning language as a formal system" (ibid.: 406), that is, acquiring language proficiency. It furthermore requires mastery of "different semiotic systems" (ibid.), which according to him include both the generic organisations enabling interaction and the sum of bodily-visual resources that can be mobilised for interactional purposes (ibid.). To subscribe to this operationalisation, however, would entail a different understanding of the relationship between language skills and interactional skills than proposed so far. Rather than considering these skills to develop fairly independently of each other (in line with, e.g., Betz & Huth 2014; Pekarek Doehler & Pochon-Berger 2011; Plough et al. 2018; see section 1.1.2), Markee's (2008) approach appears to indicate that acquiring L2 grammatical and lexical knowledge would itself express burgeoning L2 IC. In this book, I will subscribe to the understanding that L2 IC entails the ability to utilise linguistic resources in increasingly L2-like practices, rather than general language proficiency.

At its heart, then, in this study L2 IC refers to the sum of skills necessary to participate successfully in L2 interaction. It was conversation-analytic research that has shown that successful interaction is contingent on co-participants' capability of dealing with generic interactional 'problems'. Thus, it appears very reasonable to draw on conversation-analytic terms and concepts for the operationalisation of IC, and define core interactional skills in reference to the generic organisations underlying interaction. In other words, what language learners need to acquire in order to become interactionally competent are L2-specific practices allowing for orderly turn-taking, sequence organisation and so on. This is the approach that this study will adopt.

1.1.4 Interactional Competence in L2 Teaching and Assessment

As I have noted at the beginning of this chapter, the conceptualisations of speaking competence currently prevalent among foreign language practitioners and in research on language teaching do not invariably recognise that first and foremost, language learning is supposed to provide a means for participating in social life. Even if they do, understandings of the concept rarely encompass the whole spectrum of skills required for successful language use in that sense. In consequence, L2 IC remains vastly underrepresented in language teaching and testing practice. I will exemplify this by briefly reviewing some of the central documents serving as guidelines for language teaching, as well as some language testing instruments that either are currently in use, or have been proposed. Given the focus of my study, I will focus on material with relevance to EFL teaching and testing.

1.1.4.1 Interactional Competence in the CEFR

It is not that the ability to successfully interact in the L2, and the skills necessary to do so, are entirely ignored in the curricula, learning standards and frameworks informing *EFL teaching* at German schools, although divergences are observable between what such documents present as the objectives of language learning, and what may be inferred from them in terms of an underlying understanding of what learning success entails. The Common European Framework of Reference for Languages (CEFR) is noted to be intended as "a tool to assist the planning of curricula, courses and examinations" (Council of Europe 2018: 26), and thus constitutes a good starting point for this discussion. In its recently revised version, the CEFR promotes a view of language learning that seems quite compatible with the CA-informed conceptualisations of language acquisition which underlie the growing interest in IC as a core competence that L2 learners should develop:

- The CEFR rejects treating the skills of an 'idealised native speaker' of the L2 as the eventual learning target (ibid.: 45; see also Barth-Weingarten & Freitag-Hild 2023: 243), and objects to focusing on language learners' 'deficiencies' (Council of Europe 2018: 25). Instead, it proposes the adoption of "a competence-based approach" (ibid.: 32) or "*proficiency* perspective" (:26, emphasis in the original). 'Can do' descriptors should be utilised in order to focus on what learners are able to accomplish given a particular criterion (:43).

- The CEFR indicates that language learning does not constitute a linear process applicable to all learners (ibid.: 26). Rather, learners' specific needs should be considered as syllabi are constructed (ibid.).
- The CEFR notes that language should be understood not as something that is learned for its own sake (ibid.: 27), but rather as "a vehicle for opportunity and success in social, educational and professional domains" (:25), something that is acquired because language learners are "social agents" (:27) who draw on language resources for communicative purposes (ibid.; for a similar point, see Barth-Weingarten & Freitag-Hild 2023: 243). Correspondingly, it is noted that language teaching should be planned by "working backwards from **what the users/learners need to be able *to do* in the language**" (Council of Europe 2018: 27, emphasis in the original).
- The CEFR concedes that interaction should be accorded a central role as a means and goal for L2 learning, solidly putting "**the co-construction of meaning** (through interaction) at the centre of the learning and teaching process" (ibid.: 27, emphasis in the original; see also Barth-Weingarten & Freitag-Hild 2023: 243). Notably, however, this is translated into a need for providing learners with as much opportunity as possible to use the target language (Council of Europe 2018: 27).

In conclusion, the CEFR posits that learners must be enabled to acquire not only 'communicative language competences', but also 'communicative language strategies' (ibid.: 29) to successfully accomplish communicative ends.

However, a further review of the framework reveals that the scales provided do not necessarily reflect that the ability to participate in interaction is the supposed main objective of language learning and instruction. For one, the CEFR's conceptualisation of competences to be acquired by learners is very reminiscent of the notion of CC: The relevant competences are noted to be developed and deployed by individual learners (Council of Europe 2001: 9; see also Huth 2021: 368). Furthermore, although the CEFR claims to model its understanding of language proficiency after "real-life language use, which is grounded in interaction in which meaning is co-constructed" (Council of Europe 2018: 30), it is notable that 'interaction' does not constitute one of the main components of 'overall language proficiency' (on par with 'general competences' and 'communicative language competences'), but rather is relegated to sub-branches only, on equal level with 'reception' and 'production' (ibid.; see also Barth-

Weingarten & Freitag-Hild 2023: 243). Interaction therefore is treated not as the main context of language use, but as only one of several 'communicative language activities' (Council of Europe 2018: 31). By positing production and reception as clearly distinguishable categories of genre (ibid.), and defining interaction as "involv[ing] … both reception and production, but [being] … more than the sum of those parts" (:32), the CEFR further contradicts its earlier claim of paying heed to the fundamentally co-constructed nature of language in use (see Barth-Weingarten & Freitag-Hild 2023: 243-244). As regards the representation of L2 IC in particular within the CEFR scales, references to a number of the main interactional skills can be found, although they are fairly scattered throughout the framework (ibid.: 244). Without previous knowledge of the concept of IC and how it might be operationalised, a reader of the framework will scarcely be able to identify relevant aspects within the different scales. Relying solely on the aspects of repair included in the category 'Interaction Strategies', for instance, a practitioner would only consider other-initiated repair (Council of Europe 2018: 102), since self-initiated self-repair is the focus in some of the 'Production Strategies' scales (:79-80). Action formation skills also are referenced, but only through the lists of actions a learner at a particular level likely is able to accomplish within certain types of activity (e.g. ibid.: 85). Further complications arise from terminological differences: The descriptor scale dedicated to 'Turntaking' (or, Taking the floor; ibid.: 100) includes few aspects related to the interactional phenomenon of the same name (see section 2.3.1), rather focusing on the ability to observe principles of overall structural organisation. While turn-holding and (competitive) incomings are at least alluded to within that scale, turn-yielding and turn-design are part of the subsequent 'Cooperating' scale (ibid.: 101). In sum, in their current form, the CEFR scales are not conducive of an assessment of L2 speaking competence which explicitly incorporates IC.

It is not overly surprising, though, that the CEFR clearly references traditional models of language learning (Council of Europe 2018: 30), despite criticising them. While the framework shows consciousness for the critical role interaction, and the ability to interact, play in language learning, the CEFR also aims at usability and relevance regardless of the specific approach to language teaching any practitioner (or researcher) might subscribe to (ibid.: 27). Still, much work remains to be done in order to alleviate the shortcomings in the representation of L2 IC within the CEFR's scales, and the teaching and assessing tools based on them.

1.1.4.2 Interactional Competence in Learning Standards and Core Curricula

Some possible references to L2 IC can also be found within learning standards and core curricula that underlie L2 teaching at German schools. The general learning standards for English and French as Foreign Languages formulated for high-school graduates at German secondary schools, for instance, show agreement with the CEFR by noting that providing L2 learners with the skills they need to participate in spoken and written discourse is one of the main goals of language teaching (Kultusministerkonferenz der Länder [KMK] 2014: 11). Teaching is to centre around fostering 'functional communicative competence', since language skills are to be understood as a vehicle for communication (ibid.:13). The construct of 'functional communicative competence', however, clearly is operationalised with reference to the traditional model of four distinct 'macro' skills (Burns & Siegel 2018: 2), given that this competence is noted to entail access to the linguistic resources and communicative strategies necessary to display and deploy speaking, listening, writing and reading skills as well as for accomplishing language mediation (KMK 2014: 12-13). Still, a closer look at speaking skills reveals that high school graduates are not just expected to be able to produce utterances that are 'largely fluent' and linguistically correct (ibid.: 16). They should also have acquired a range of interactional skills (reference is made, for instance, to action formation, overall structural organisation and repair; ibid.), enabling them to accomplish participation in interaction in a context-sensitive and recipient-designed way. Thus, while not explicitly listed among the competences an L2 learner is meant to acquire prior to graduation, L2 IC may still be taken to be of implicit relevance.

Thus, be they international (CEFR) or national (KMK) in scope, prominent documents meant to inform and guide L2 teaching indicate that foreign language instruction is not to be understood as self-serving, but rather as a means to enable L2 learners to successfully participate in communicative encounters in which the L2 is the medium of interaction. Additionally, they include possible references to interactional skills among the learning outcomes. With this in mind, it must be noted as problematic, yet telling of the general lack of awareness of the notion and relevance of interactional competence among practitioners, that L2 IC remains vastly underrepresented in both language textbooks (e.g. Huth et al. 2019: 104; Nakatsuhara et al. 2016: 8; but see Barraja-Rohan & Pritchard 1997) and teacher training (e.g. Huth 2010: 163; Huth et al. 2019: 103-106; Huth & Taleghani-Nikazm 2006: 73).

26

1.1.4.3 Interactional Competence in Language Testing

Just as in teaching and teacher training practice, little focus has been afforded to L2 IC in the context of language testing (see Ikeda 2017: 1, 29; Youn 2013: 5-7), although there is increasing research interest in the matter (for an overview of relevant literature, see Youn 2013: 18-20). Summarising prior research, Ikeda (2017) notes that the "construct of pragmatics and interaction has not been fully reflected in widely used oral proficiency tests" (:29). Indeed, a review of the rubrics used for some of the most well-known English proficiency tests reveals that there is little to no reference to interactional skills in the assessment criteria utilised to evaluate speaking skills. When learners take the International English Language Testing System (IELTS) speaking section, for instance, they are rated according to a few main criteria – how fluent and coherent their utterances are, the breadth of lexical and grammatical resources available to them, and how accurately, naturally and appropriately they can use these means and match English norms of pronunciation ("IELTS scoring in detail", 2023, website). While there is mention of 'self-correction' as one sub-criterion, a term that can potentially be connected to the organisation of repair (see Chapter 3), it is part of the fluency scale, and the occurrence of self-correction is noted to be indirectly proportional with the fluency score. Hence, self-correction appears to be conceptualised as a dysfluency marker, likely limited in scope, rather than a skill in its own right.

The speaking section of the Test of English as a Foreign Language (TOEFL) draws on similar criteria, although they are grouped differently. Test-takers are scored both according to an overall impression of their performance, as well as with regard to the fluency and comprehensibility of their language use, their use of linguistic resources (including accuracy, complexity and automaticity), and whether their response is coherently structured, and complete in terms of the content they are to provide ("TOEFL iBT Scores", 2023, website). A phrasing that at first glance relates to L2 IC is provided in the 'General Description' scale, which indicates that learner levels differ in terms of whether, and to which extent, the test-taker's "response fulfills the demands of the task" (ibid.). However, this is specified to refer to content matters, and not to whether or not the test-taker manages to accomplish any specific interactional aim.

While the aforementioned language tests distinctly reflect a fairly traditional conceptualisation of speaking competence, there are others which clearly include L2 IC into the construct. Among these are the Cambridge English Qualifications tests. They utilise 'interactive communication' as one of the main criteria in their speaking scales

("Resources for English teachers", 2022, website): Test-takers are assessed in terms of how well they do in "initiat[ing] … and respond[ing] … appropriately, … [m]aintain[ing] … and develop[ing] … the interaction and negotiat[ing] … towards an outcome" (ibid.). However, while these aspects clearly relate to a test-taker's ability to interact successfully, the descriptors are kept fairly general, lacking an operationalisation that helps ascertain what 'maintenance' and 'development' of interaction entail, and how they may be observed in test-taker performances. Furthermore, at least in the B2 level scales I reviewed for this study, it is striking that the bands of the 'Interactive Communication' scale barely differ from each other, providing some evidence that to usefully integrate L2 IC into assessment scales, more specific criteria are needed.

In other rating scales, the operationalisation of L2 IC may be clearer. Trinity's Integrated Skills in English Test (ISE, see Nakatsuhara et al. 2016: 6), for instance, makes explicit reference to turn-taking and implicitly indicates the inclusion of repair. However, these scales still confront raters with a number of issues. Most notably, the different interactional skills remain underspecified. There is little information on what is to be understood by "effective turn-taking" and "solv[ing] … communication problems naturally" (ibid.), save for some indication that the number of attempts at dealing with problems may be indicative of the general ability to resolve trouble (ibid.). This underspecification means that it remains unclear what raters need to look out for in order to provide an evaluation representative of a test-taker's actual L2 IC. Furthermore, conflation of various major interactional skills into one scale puts further burden on raters, who are required to provide one single score for the entirety of the complex construct of L2 IC (Reinhardt & Barth-Weingarten, in prep.). This problem also applies to some of the scales proposed in current research on the assessment of L2 IC (see also Barth-Weingarten & Freitag-Hild 2023: 245). Youn (2013), for instance, proposes 'turn organization' scales that require the rater to consider matters of both turn-taking and sequence organisation (:Appendices D, E). Furthermore, she includes additional criteria related to turn-taking in other scales (ibid.).

The observation that "sound L2 pragmatic assessments are available for mainly norm-referenced test purposes, and such test instruments are not intended for specific L2 educational settings in assessing learners' pragmatic progress" (Youn 2013: 7) equally applies to L2 IC assessment in particular. As I have just shown, assessment instruments designed to allow the summative evaluation of interactional skills are fairly rare. Material usable for formative purposes, in instructional settings, is equally

sparse. This is of little surprise given the limited role interactional aspects play in current curricula and textbooks. One proposal to rectify this situation is made by Nakatsuhara et al. (2016), who proffer "a checklist, accompanying descriptions and recommendations for teachers to use in providing feedback on learners' interactional skills" (:3). This checklist references a broad range of aspects of L2 IC, including turn-taking skills, repair skills and the ability to observe principles of the overall structural organisation of interactional encounters (ibid.: 62-66). However, the main criteria structuring the checklist, and the positive and negative performance features meant to inform the evaluation of learners according to those criteria, have not been developed through an empirical analysis of learner talk, but rather are based on "examiners' verbal comments on … paired discussion performance" (ibid.: 13; see also Barth-Weingarten & Freitag-Hild 2023: 244-245). "[E]xperienced *Cambridge English: First* examiners" (:11, emphasis in the original) carried out speaking tests, rated the testees, and subsequently shared which aspects of learner performance they considered informative indicators for skill in 'Interactive Communication' (Nakatsuhara et al. 2016: 13). As "[s]ome of them had contributed to the development of the current IC scales" (ibid.: 11), it is likely that the examiners provided representative insight into the Cambridge English rating procedure for speaking skills. However, there is little indication whether the performance features they regard as indicative for L2 IC would be confirmed by a qualitative review of learner data. Basing the immediately preparatory tool for a speaking test on raters' intuition on what it means to be interactionally competent also carries the danger of perpetuating and stabilising a potentially non-valid understanding of the L2 IC construct. At present, then, there is still need for an empirically based operationalisation of the skills making up L2 IC, something that this study aims to contribute to.

However, this implies the assumption that L2 IC is something that can be taught, or purposefully learned, and that therefore testing is warranted to ascertain the extent to which a learner has acquired the skills needed to interact in the L2. While I will come back to the matter of interactional skills as 'teachables' in Chapter 6 of this book, I now briefly review the ongoing discussion of the matter of the *assessability* of L2 IC.

1.1.5 Assessing Interactional Skills

A general issue that has been brought up in the past regarding the assessability of L2 IC concerns the fact that the notion of IC is intellectually rooted in Conversation Analysis (CA), and research on interactional skills consequently is based on that framework

as well. It has been recurrently put forward that L2 IC assessment may be impeded by the lack of sufficient compatibility between CA methodology and the assumptions underlying language testing (e.g. Walters 2021: 384). Within language teaching and testing practice, a competence is usually understood to be something that learners acquire over time (Waring 2018: 60). Learners can then be evaluated based on the degree to which they have acquired the competence, something which is inferrable through the extent to which their performances on assessment meet predetermined standards (Walters 2021: 385). The inherently descriptive research objective of CA, however, entails a different perspective on the notion of 'competence'. Eschewing the deficiency view of language learning inherent in language testing practice (Waring 2018: 60), CA research claims that by participating in interaction, all speakers show themselves to be *competent* language users (ibid.; see also Hall 2018: 25; Hall & Pekarek Doehler 2011: 11; Kasper 2006: 90; Walsh 2013: 47-48), although their L2 IC becomes more sophisticated over time. Interactional competence, therefore, is not conceived of as something that learners start without and gradually acquire, but as something that is observable in, and thus can be specifically described for, any instance of learner interaction (ibid.). This is one reason why L2 IC is considered difficult to assess. Beyond that, the ability to evaluate a learner's progress with regard to a particular construct rests in the knowledge of how learners' skills develop over time, allowing for the positioning of a test-taker on a continuum from less-competent to more-competent (Walters 2021: 387). Gaining such knowledge generally is said to require etic, 'scientific-evaluative' research (ibid.: 384), rather than the emic, participant-oriented approach of CA (ibid.; Hall & Pekarek Doehler 2011: 1). However, CA research (specifically, research within the framework of Conversation Analysis for Second Language Acquisition, which significantly informs this study; see section 2.1.3) has been able to reveal differences in how learners achieve interactional success. Such "systematic changes in participants' interactional methods for accomplishing recurrent and situated social actions" (Pekarek Doehler & Pochon-Berger 2011: 236-237) have been noted to serve as evidence for L2 IC learning, and may therefore also be used as evidence for its assessability.

The fact that IC has been included in some rating scales provides further evidence that it is an assessable construct, although there are factors that may influence the potential for (valid) L2 IC assessment. For instance, despite the range of studies that have investigated possible instruments for pragmatics testing (for overviews, see e.g. Ikeda

2017: 31-39; Youn 2013: 1-5), there is an ongoing lack of tools for L2 IC assessment. This may be attributed to the diverse requirements such an instrument should ideally meet: It should a) elicit interaction which resembles authentic talk sufficiently enough to enable valid L2 IC assessment, and b) be practicable enough for everyday use (Kley et al. 2021: 165; Youn 2013: 5-6). There is quite some evidence that instruments used for traditional L2 assessment focusing on proficiency (e.g., discourse completion tasks (DCTs), closed role-plays; Ikeda 2017: 38; Youn 2013: 6) may be practical, but cannot provide meaningful insight into the extent of a learner's L2 IC (Roever & Dai 2021: 33; see also Ikeda 2017: ii). On the other hand, research shows that the types of task suitable for L2 IC assessment, unscripted pair or group interactions which ideally simulate authentic situations (Kley et al. 2021: 167; Plough et al. 2018: 431; see also Hırçın Çoban & Sert 2020: 65; Ikeda 2017: 65; Youn 2013: 103), may be too impractical for general use. Both aspects have an important impact on assessability in their own way: Authentic methods provide for valid rating (Youn 2013: 6), practicality of those methods ensures that a construct can be assessed efficiently and without specific methodological expertise (Ikeda 2017: 39; Walters 2009: 50). It has been noted that the creation of instruments fulfilling both these criteria is not entirely impossible (Ikeda 2017: 38), although at present it seems that the assessability of L2 IC is limited in that regard.

Of further importance for valid L2 IC assessment is the definition of the 'target construct' (Youn 2013: 9). Just as successful teaching of L2 IC requires an in-depth understanding and operationalisation of that concept (see section 6.1), so does its assessment and testing (see e.g. Hırçın Çoban & Sert 2020: 66). It is only on these grounds that suitable L2 IC 'markers' (Roever & Dai 2021: 34), or criterial features, can be identified, and assessment scales can be developed. Since no assessment can ever cover the full target construct, focus should be on those features that are "consistently observable, ratable and scalable" and also "cover greater IC variance and … make a more tangible impact on the performance of talking" (ibid.: 35). Such criterial features may be identified in a variety of ways. In the literature I reviewed, this identification process generally appears to be centred around qualitative analyses of learner data (Ikeda 2017: 97; Roever & Dai 2021; Youn 2013: 48), in accordance with the notion that performance-based approaches to scale construction generally yield more valid instruments (see section 2.2). However, there are different takes on whether this analysis would stand on its own (Youn 2013) or be combined with another method. In

the latter case, the second component of the identification process may be, for instance, a review of existing literature for candidate criterial features (Ikeda 2017; see also Waring 2018: 61) or "etic, researcher-based judgment" (Roever & Dai 2021: 36; see also Galaczi 2014: 554).

To date, it remains an empirical question how best to determine the features that "make a more tangible impact on the performance of talking" (Roever & Dai 2021: 35), and whether these happen to coincide with those features that can be observed in learner data with sufficient consistency (ibid.). Thus, while the identification of candidate criterial features for the assessment of L2 IC is, by itself, a challenging undertaking, finding criteria fulfilling all the requirements listed by Roever & Dai (ibid.) presents an additional problem, one that remains beyond the scope of this book.

While L2 IC has been established to be assessable in language testing, a number of open issues remain. Centrally, the identification of candidate criterial features for assessment is contingent on a precise operationalisation of L2 IC, and on the availability of empirically based insight into the development of learners' interactional skills over time (Galaczi 2014: 555). CA presents an eminently suitable methodology to pursue those open issues (e.g. Roever & Dai 2021: 34). My study, which is grounded in that framework, will therefore aim to contribute to this matter.

1.2 The Goal of this Study

In line with the open issues identified by prior research, my study is fundamentally motivated by the fact that, to my knowledge, empirically based rubrics allowing for the (comprehensive and efficient) assessment of L2 IC still await development. While I at least know of the existence of one rubric dedicated to the construct and currently used in teacher training[5], it notably is based on a review of existing literature on the

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[5] My research is part of a larger project aiming to promote the incorporation of the concept of L2 IC into the teaching and assessment of speaking skills within the EFL classroom. Departing from the observations I have discussed in section 1.1.4 regarding the continued underrepresentation of IC within FL teaching and testing, a set of joint courses has been developed. These introduce teacher trainees to IC as a concept, and provide them with the knowledge and analytical skills that they need to include the construct into their teaching, and assessment routines, so that they may ultimately foster the development of well-rounded speaking competence in their learners. Given that rubrics commonly available to teachers for the assessment of speaking skills do not necessarily include L2 IC, or do so unsystematically, incompletely, superficially or in a manner that makes them impractical for actual use (see section

interactional skills included in it. Research within the framework of Conversation Analysis for Second Language Acquisition, however, draws on vastly diverse data to investigate (the development of) language learners' L2 IC: Learners investigated vary considerably in terms of their first languages, the L2s they are learning, and their current age/phase of life. Furthermore, data differs in terms of the context in which the language is learned (ranging from formal classroom instruction in the foreign language to immersion in an L2-speaking community) as well as in the context of recording (ranging from classroom interaction to conversation). To date, there is little literature available that specifically investigates the L2 interactional skills of EFL learners who are, or have been, acquiring English in a formal classroom context at German schools. However, I have noted in section 1.1.2 that following the conceptualisation of IC I subscribe to, L2 IC development involves the 'recalibration' of interactional methods (i.e., the development of progressively more L2-like inventories of practice; e.g. Pekarek Doehler 2018: 6; Pekarek Doehler & Pochon-Berger 2011: 237, 2015: 235). Against this background, to simply assume that L2 interactional skills will develop in the same way regardless of the language being learned appears premature. Previous research on L2 IC (development) may well reveal potential 'IC markers' (Roever & Dai 2021: 35), but assessment criteria posited on that basis may not automatically be suitable for the assessment of all learners (e.g., be "consistently observable, ratable and scalable", ibid.). In order to create an instrument for the assessment of L2 interactional skills which is useful to EFL teachers at German schools, it must therefore first be ascertained how *their* learners' increasingly sophisticated L2 interactional skills manifest in talk, and which criteria might thus be usable to distinguish these learners in terms of their L2 IC.

It is this first analytical step that I will take in this book. As it is impossible to cover the entire construct of L2 IC within the scope of a single study, I focus on only one of the interactional skills included in the aforementioned assessment rubric: L2 *repair skills*. There are a number of reasons why this is a suitable focus for a first attempt at identifying candidate criterial features for the assessment of L2 IC. As I have noted in

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1.1.4.3), one major focus of the seminars is to aid teacher trainees in developing an assessment rubric containing, and putting central emphasis on, several interactional skills (turn-taking, action accomplishment, repair (see, e.g., Reinhardt & Barth-Weingarten, in prep); this choice of central interactional skills is in line with generally established operationalisations of IC, see section 1.1.3), which they may eventually utilise in their teaching practice.

the beginning of this chapter, repair is a ubiquitous(ly relevant) interactional phenomenon. The organisation of repair is recognised as one of the central mechanisms underlying successful interaction (see section 2.3), as it allows speakers to deal with one of the generic problems of social interaction. It also constitutes an interactional meta-skill running alongside all other basic organisations (e.g., see Sacks et al. 1974: 701 on the self-righting mechanism for dealing with turn-taking issues). As such, repair is one of the core interactional skills all speakers need to participate successfully in social interaction, and L2 learners can be expected to engage in repair from the very beginning of their learning process, and in any type of talk-in-interaction. This makes repair into an aspect of L2 IC that is readily available for investigation from beginning-level onwards, and regardless of interactional setting. Especially at early stages of formal language acquisition, when learners are likely to engage in a very restricted range of activities, other interactional skills may be less easily accessible for enquiry. Beyond that, focusing on L2 repair skills in this study may also serve to raise awareness that repair should, in fact, be considered an important aspect of L2 teaching – not (only) because doing repair can serve as a means to contextualise learner identity, or because repair may serve to create learning opportunities, or display learning, but because repair is an important teachable itself (see Lehti-Eklund 2013: 148; Wong & Waring 2010: 212). At present, research often focuses on the role that repair practices may play within language learning and teaching, rather than on the relevance of acquiring sophisticated L2 repair skills.

The specific aim of my study is to identify candidate criterial features for the assessment of L1 German EFL learners' L2 repair skills through qualitative, inductive, emic analyses, thus exemplifying a possible general approach to the identification of L2 IC 'markers' (Roever & Dai 2021: 34). As I have noted in section 1.1.4.3, and as has been problematised elsewhere as well (Barth-Weingarten & Freitag-Hild 2023: 244-245), existing rating instruments often are not based in the empirical analysis of learner talk. While qualitative analyses sometimes are involved nevertheless, it is not the learner data itself which is investigated, but rather the raters' review of that data. Criteria developed in such a way reflect the raters' (or other experts'; ibid.) intuition of what constitutes L2 IC development, rather than how language learners show themselves to change over time, or what they explicitly orient to as indicative of (lacking) L2 interactional skills. I will return to this issue in section 2.2. For now, suffice it to say that I

would like to show that candidate criteria for L2 IC assessment can be revealed by conducting a direct, conversation-analytic investigation of learner performances.

Reviewing the repair work of L1 German EFL learners, I hope to be able to identify a) features that allow for a general evaluation of the degree of sophistication a learner's L2 repair skills have currently reached, and b) features that are relevant for the formative and summative assessment of intermediary-level learners in the context of the language classroom. To that end, my research will be guided by the following main questions:

- Which differences between novice, intermediary-level and advanced learners emerge when comparing the repair work conducted by L1 German EFL learners at different levels of L2 development?
- Which differences emerge when comparing the repair work conducted by L1 German EFL learners of one intermediary-level cohort?
- Which candidate criterial features for the assessment of L1 German EFL learners' L2 repair skills may be posited on the basis of these insights?

In the long term, it is my hope that I will be able to contribute to the revision, or construction, of assessment scales geared towards the evaluation of (L1 German) EFL learners' L2 repair skills in particular, and their L2 IC more generally. That is, this study is meant to serve as groundwork for the eventual construction of empirically based material for the assessment (and teaching; see Pekarek Doehler 2021: 421) of L2 repair skills in the German EFL classroom.

In the framework of the current study, it will not be possible to pursue the construction of a ready-to-use assessment scale, nor will I be aiming at designing a descriptive scale for repair on par with the scales provided by the CEFR. Before any candidate criterial features I identify can be used in actual scales and rubrics, a great number of additional considerations are relevant. Some of those, I will reflect on in the final chapters of this book to facilitate the next steps toward the eventual construction of assessment material. Furthermore, although I will be considering the matter of learners' repair work from a number of perspectives, I do not approach this study with the intention of producing an exhaustive list of all candidate criterial features that may be utilised for the assessment of L2 repair skills. I will provide first insights into which 'markers' indicate more or less sophisticated L2 repair skills. To achieve the necessary detail, I will only focus on a selection of possibly relevant repair phenomena.

This study constitutes a first step into unchartered territory, and hopefully contributes not only to the operationalisation of L2 repair skills in particular, but also to the current effort at finding a way of identifying criteria for the assessment of L2 IC on the basis of qualitative, emic and inductive investigation of learner performances.

1.3 The Structure of this Book

Next to this first chapter, this book is structured into six main parts. Chapters 2 and 3 will review the central theoretical background for the research conducted in this study. In Chapter 2, I will discuss the central research frameworks that I will be basing my analyses on, namely CA, Interactional Linguistics and Conversation Analysis for Second Language Acquisition. Furthermore, I will provide a brief review of commonplace approaches to rating scale development, and introduce the central 'machineries' (Sidnell 2010: 2) underlying successful interaction, bar the organisation of repair. As it is of main relevance to my study, this latter order of organisation will be the focus of Chapter 3. In addition to an overview of the general features of the repair system and of the practices for initiating and accomplishing repair as identified for L1 English talk-in-interaction, I will also include a discussion of the concept of 'repair' in SLA research. Chapter 4 introduces the data my analyses are based on, as well as the methodology I follow. Mirroring the different perspectives through which I explore my learners' repair work, the analysis chapter (Chapter 5) will consist of four main sections. Section 5.1 will be dedicated to the use of the four main repair types in the learner data, as well as to learners' displays of orientation to general repair preferences. Section 5.2 focuses on the two repair initiation practices most prevalent in my data, searches and bricolage. In section 5.3, I discuss L1-based practices of repair. Finally, in section 5.4, I will be dealing with cases of unsuccessful and assisted repair. Chapter 6 provides a brief discussion of some practical matters concerning the usability of my results in language teaching and, particularly, testing. The results of my analyses will be summarised in Chapter 7. In that chapter, I will also discuss limitations of this study, along with (additional) suggestions for further research.

2 Theoretical Framework

2.1 Investigating Interactional Competence: Introducing CA, IL and CA-SLA

CA constitutes one of the 'intellectual roots' of the IC concept, as well as the main methodological framework in which it is commonly researched. Consequently, it is also a framework that I will be basing my analyses on. In this chapter, I will introduce 'traditional CA' (Birkner 2020: 4), and then discuss two further research programmes guiding my research, both of which draw on CA methodology to pursue research interests beyond the scope of traditional CA. Section 2.1.2 will be dedicated to Interactional Linguistics (IL), which is of relevance in this book due to its focus on the interplay between interactional organisation and linguistic forms, and section 2.1.3 will then introduce Conversation Analysis for Second Language Acquisition (CA-SLA), a programme interested in (the development of) language learners' L2 IC.

2.1.1 Conversation Analysis

I first turn to the CA framework, which provides both the metatheoretical as well as the methodological foundations for my own study. The advent of CA – nowadays understood to be "the dominant approach to the study of human social interaction across the disciplines of Sociology, Linguistics and Communication" (Stivers & Sidnell 2013: 1) – is commonly perceived to date back to the 1960s and 1970s (Hoey & Kendrick 2017: 152). It was from 1964 to 1972 that Sacks held his eponymous 'Lectures in Conversation' (Sacks 1995). Later in the 1970s, he – along with Schegloff and/or Jefferson – published some of the seminal papers of this emerging field of research (e.g. Schegloff & Sacks 1973; Sacks et al. 1974; Schegloff et al. 1977). In the conception of CA as a new approach to studying social interaction, one aiming in particular at uncovering how participants manage to achieve and maintain social order through interacting with each other, two main influences are commonly cited (see, e.g., Hoey & Kendrick 2017: 152; cf. Maynard 2013 for further influencing factors). For one, credit is given to Goffman for pointing out that face-to-face interaction is organised by its own rules and thus a worthwhile subject of study (Goffman 1964: 136; see also Hoey & Kendrick 2017: 152; Maynard 2013: 16). Similarly, CA is said to owe much to Garfinkel's introduction of 'ethnomethodology' as an approach interested in the "commonplace activities of daily life … as phenomena in their own right" (Garfinkel 1967: 1), an approach whose aim is to study the systematic practices which are

used by participants for interactional sensemaking and which thus contribute to generating social order (Bergmann & Meyer 2021: 47; Hoey & Kendrick 2017: 152). Garfinkel (1967) posits that any setting of social life has an underlying, orderly organisation and consists of 'members' methods' that create and reflect this orderliness (:34): The 'methods' are said

a) to provide participants with indication that the inner workings of the respective setting are organised and routine in nature: a setting "*consists* of members' methods for making evident that settings' [sic!] ways as clear, coherent, planful, consistent, chosen, knowable, uniform, reproducible connections,—*i.e.,* rational connections" (Garfinkel 1967: 34, emphasis in the original; see also Bergmann & Meyer 2021: 42)

and

b) to serve as observable conduct providing co-participants with evidence that the setting is made up of certain *accountable* (i.e., interpretable) events and procedures: a setting "*consists* of methods whereby its members are provided with accounts of the setting as countable, storyable, proverbial, comparable, picturable, representable—*i.e.*, accountable events" (ibid.).

Garfinkel (1967) notes that these 'members' methods' underlying "common sense knowledge" (:31), which participants draw on to interact with each other, are a thus-far unexplored, but highly promising topic of research (ibid.; see also Bergmann & Meyer 2021: 42-43; Maynard 2013: 14-15).

In its core research aims, it can be said that "CA synthesized these two themes: the methods with which participants *themselves* go about recognizing and producing actions, *together* in actual episodes of social interaction" (Hoey & Kendrick 2017: 152, emphasis in the original). Conversation analysts aim to identify these methods. This objective may generally be subsumed under the question 'Why that now?' (Schegloff & Sacks 1973: 299) – a question which, as noted by Schegloff & Sacks (ibid.), also constitutes the central issue which the interactants themselves are working on when dealing with their co-participants' utterances. Thus, to establish how social order is achieved through social interaction (Hoey & Kendrick 2017: 167), CA research particularly aims to uncover which organisational patterns participants orient to in order to make themselves understood to each other as they resolve 'interactional problems' (Levinson 1983: 319; see also Couper-Kuhlen & Selting 2018: 6-7, Heritage 1984b:

241). Levinson (1983: 319) specifies that two overarching objectives are to be accomplished by CA research: 1) To identify and describe systematic organisations that underlie interactional sensemaking, and 2) to explicate how each of these organisations contributes to the resolution of interactional issues. Language use in interaction, itself, is not of primary interest to CA (Schegloff 2001: 229). Nevertheless, it often becomes the focus by default, since linguistic resources constitute a significant portion of the means available for participants to accomplish recognisable actions (Hoey & Kendrick 2017: 152; Sidnell 2013: 78). It is this insight that served as a main impetus for the conception of Interactional Linguistics (see section 2.1.2).

The central premises underlying CA research may be summarised as follows:

- Participants do not produce language for its own sake or for informational value, but primarily in order to collaboratively accomplish social actions (Hoey & Kendrick 2017: 152). This, Schegloff (2001) notes, distinguishes CA from many discourse-level approaches linguists use to study human communication: "Among the most robust traditional anchors for the analysis of language beyond the level of syntax are orientations to information and truth" (:231). However, he implies that such a perspective is unsuitable for research interested in the participants' interactional reality, as "[e]specially (but not exclusively) in conversation, talk is constructed and is attended by its recipients for the *action or actions* which it may be doing" (ibid., emphasis mine). In consequence, language (structure) is understood to be responsive, at least to some extent, to language users' "*interactional* considerations" (ibid.: 230, emphasis in the original).

- Direct interaction between participants (commonly in face-to-face encounters) is the 'primordial' site in which social order is accomplished and maintained (Schegloff 2001: 229; see also Hoey & Kendrick 2017: 154), and therefore the natural subject for CA enquiry.

- In any such interaction, there is '*order at all points*' (Sacks 1995: 484). Thus, it can be presumed that any detail of interaction is produced in response to some seen, but unnoticed norm that participants orient to in order to ensure mutual understanding (Hoey & Kendrick 2017: 152; Levinson 1983: 321; Stivers & Sidnell 2013: 2). As interactants cannot help but factor in – and therefore perpetuate – such conventions in forming their utterances, these norms can be revealed through detailed analyses of interactional contributions (Sidnell

2013: 87). Supposed 'order at all points', however, entails that in analyses "no order of detail can be dismissed, *a priori*, as disorderly, accidental or irrelevant" (Heritage 1984b: 241, emphasis in the original).

- Anything done in a given turn (excepting, perhaps, the very first one within an interactional encounter) is, by design, responsive to previous talk (often the immediately preceding turn in particular) and produced for the particular moment-in-interaction in which it occurs – it is *context-shaped* (ibid.: 242; see also Couper-Kuhlen & Selting 2018: 6). At the same time, any turn provides the context for upcoming talk in the interactional encounter, and thus is *context-renewing* (Heritage 1984b: 241). Turns are, therefore, considered 'doubly contextual' (ibid.). These assumed interrelations between turns-at-talk give rise to the notion that anything done in a given turn provides an observable display of what the speaker understood the prior talk to do (Sacks et al. 1974: 728), and allow for the use of the so-called *next-turn proof procedure* (NTPP; ibid.: 728-729; see also Sidnell 2013: 79) as a central analytic tool.

The NTPP is part of the "well-developed descriptive apparatus for investigating conversational interaction" (Hoey & Kendrick 2017: 152) that CA is known for, and which provides for its strictly empirical methodology (ibid.; see also Couper-Kuhlen & Selting 2018: 7). In subscribing to this methodology, conversation analysts engage in research that is

- data-driven (Heritage 1984b: 243), in that analyses are based around concrete observations of phenomena visible in the interactional data itself, and therefore the participants' actual conduct, rather than on preexisting theory (ibid.: 242; see also Maynard 2013: 19) or speculation about participants' motives (Heritage 1984b: 243);
- emic in nature (Seedhouse 2005: 252), in that conversation analysts approach data from the participants' perspective, and with awareness of the concrete sequential context any utterance under consideration was produced in;
- inductive (Stivers & Sidnell 2013: 2; Hoey & Kendrick 2017: 152, 168), in that analyses start from observations of concrete phenomena, and the desire to find the underlying pattern(s) they can be explained by;

- primarily and predominantly qualitative (Stivers & Sidnell 2013: 2; Hoey & Kendrick 2017: 152), in that it relies on the systematic, micro-analytic description of single cases which are often built into collections in order to identify underlying patters (see also Couper-Kuhlen & Selting 2018: 7);

- based on the analysis of naturally occurring interactional data (Schegloff 2001: 229; Hoey & Kendrick 2017: 154), that is, consequential instances of conversational and institutional exchanges which are not elicited for research purposes. Only this kind of data allows for the investigation of participants' means for accomplishing mutual understanding and social order (Heritage 1984b: 236-238). The data must be available to the researcher as audio- or video-recordings to enable the aforementioned micro-analytic description; transcripts may serve as central tools for analysis (e.g. Stivers & Sidnell 2013: 2).

Along with the NTPP, conversation analysts draw on several types of evidence to support their analyses of what specific phenomena are accomplishing (Wootton 1989):

- the sequential context *leading up* to the turn containing the phenomenon in question (:244-246)

- features or phenomena often *co-occurring* with the phenomenon in question (:246-247);

- comparison with available *alternatives* that the phenomenon in question recognisably and meaningfully contrasts with (:248-250);

- *deviant cases*, in which the phenomenon is used differently from the established pattern, but in a way that provides support for the analysis (:250-252). This, it is often noted, provides an "especially powerful kind of evidence for demonstrating the normative organization of some phenomenon" (Hoey & Kendrick 2017: 165).

Some of this evidence, in particular the latter two types described by Wootton (1989), also can be used to prove that the observed patterns are normatively relevant to the co-participants, which is a central aim of conversation-analytic research (Hoey & Kendrick 2017: 152, 165).

Hence, traditional CA provides a methodological toolbox which has consistently shown its suitability for the detailed investigation of talk-in-interaction. Since the conception of this framework, multiple research programmes rooted in CA, but pursuing

(partly) different objectives, have emerged, such as Interactional Linguistics, which I turn to next, and CA-SLA, which will be the focus of section 2.1.3.

2.1.2 Interactional Linguistics

In my study, I will not only draw heavily on the methodological toolbox developed by CA to describe my learners' repair conduct, but also pay close attention to how these learners linguistically organise and design their repair. Although there are grounds to posit that the generic organisation of repair is 'quasi-universal' in nature (Couper-Kuhlen & Selting 2018: 116), the same cannot be said for the practices utilised to accomplish repair tasks (see Chapter 3). Keeping with Pekarek Doehler's conceptualisation of IC as "members' practices or 'methods'" (2018: 5), the identification of possible criteria for the assessment of L2 repair skills (and L2 IC in general) requires a focus on how learners' inventories of practices change over time. In particular, Betz & Huth (2014: 147) have hinted, changes are to be expected in terms of the specific means (linguistic or otherwise) utilised for repair purposes. Thus, I will also draw on the IL framework.

As noted above, while CA regularly provides insight into language use in interaction, this is due to the significant role language and linguistic resources play in social interaction, and not out of a specific interest in language itself inherent in the research aims pursued by the framework[6]. In this, CA can be distinguished from IL, which as a research programme is interested specifically in "the linguistic organization of talk-in-interaction in diverse languages" (Couper-Kuhlen & Selting 2018: 12-13). Its aim is to investigate the ways in which linguistic structures and interaction, their 'natural habitat' (Couper-Kuhlen & Selting 2001: 1), mutually influence each other: Even in earliest papers introducing the framework (ibid.: 3; Selting & Couper-Kuhlen 2001: 266), it is noted that IL essentially means to pursue two central questions:

> i) what linguistic resources are used to articulate particular conversational structures and fulfil interactional functions?
> ii) what interactional function or conversational structure is furthered by particular linguistic forms and ways of using them? (Couper-Kuhlen & Selting 2001: 3)

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[6] Notably, I do not mean to imply that CA research has not ever provided insight into, or focused on, linguistic structures and their role in organising interaction. It is the central, programmatic objectives pursued by 'traditional' CA and IL that I claim to be differentiable.

This provides alternative starting points for IL analyses. Either, inquiries depart from specific actions or interactional undertakings, and aim to identify which linguistic resources are used in order to recognisably accomplish them (ibid.; see also Couper-Kuhlen & Selting 2018: 15), or specific linguistic phenomena are taken as a point of departure, and the analysis is done to establish which actions these accomplish (ibid.). Thus, IL research may approach its subject of study from 'onomasiological' and 'semasiological' perspectives respectively, although in both cases the interest is to be on how linguistic features and structures are used in particular interactional contexts as resources for accomplishing social action (Couper-Kuhlen & Selting 2018: 16). In this, IL research is meant to expand on, and provide further evidence for, existing conversation-analytic findings (ibid.: 8). Beyond this, IL is noted to be interested in "how interactional practices are molded through specific languages" (Couper-Kuhlen & Selting 2001: 3), therefore also encouraging cross-linguistic analyses (Couper-Kuhlen & Selting 2018: 16).

IL was created to enable linguistic study on the basis of CA methodology (Couper-Kuhlen & Selting 2018: 5). One of the main insights inspiring that endeavour (Couper-Kuhlen & Selting 2001: 5) was that "linguistics cannot be done properly without interaction" (ibid.): To fully understand language structure and language use, they have to be investigated as they actually occur in interaction. At the same time, a focus on language(s) is perceived as essential for any attempt to fully understand the orderly patterns underlying interaction, as central organisational mechanisms, such as turn-taking, have recurrently been shown to rely crucially on linguistic structures and patterns (ibid.; see also Couper-Kuhlen & Selting 2018: 7-8). IL as a research approach pays heed to this mutual dependence. It pursues the idea of synthesising linguistic research traditions and CA for mutual gain (Couper-Kuhlen & Selting 2001: 1; Couper-Kuhlen & Selting 2018: 5), with linguistics providing the means for the 'technical description' of language structures and phenomena employed in interaction, and CA contributing its methodological apparatus, basic premises and insight into the organisations underlying successful interaction (Couper-Kuhlen & Selting 2001: 1-3; Couper-Kuhlen & Selting 2018: 3).

IL as a research program derived inspiration from a number of central influences (Couper-Kuhlen & Selting 2001: 2-3). Beyond CA, these include

- research in the (discourse-)functional linguistic tradition (e.g. Hopper & Thompson 1984, as noted by Couper-Kuhlen & Selting 2018: 4), which

showed that linguistic forms and structures stand in a reciprocal relationship with the tasks they can perform in discourse;

- anthropological linguistics research, with its focus on "communicative events and their contextual variation within and across speech communities, using ethnographic methods" (Couper-Kuhlen & Selting 2018: 10), thus inspiring the cross-linguistic aspect of the interactional-linguistic enterprise (Couper-Kuhlen & Selting 2001: 8; Couper-Kuhlen & Selting 2018: 12);

- contextualisation theory, in providing insight into how the employment of (language-specific) linguistic means contributes to the characterisation of the setting in which an interaction occurs, to the relationship between the participants involved, and to the meaning intended by any particular utterance – that is, how all linguistic (and multi-modal) resources need to be considered potential 'contextualisation devices' (Couper-Kuhlen & Selting 2018: 8-9).

While IL subscribes to the central premises of CA research discussed above, its overall objective accounts for, and is informed by, additional assumptions. I already noted that one main point of departure for IL inquiry is that spoken language must be analysed within real-life interactional contexts to be fully understood (see also Couper-Kuhlen & Selting 2018: 3). This is owed to the conceptualisation of language as providing one major set of resources for accomplishing social action and interactional ends, which IL adapts from CA. This assumption furthermore provides for IL's notion that language units and structures are produced collaboratively, by all participants, in response to specific local requirements in an ongoing interactional encounter (Couper-Kuhlen & Selting 2001: 4-5) and reflect, in their form, the interactional purposes they are deployed to achieve (ibid.: 3).

Couper-Kuhlen & Selting (2018: 13) concede that while IL was originally conceived as an approach to linguistic study that draws on "a rather orthodox version of CA methodology", it has since developed into a diverse field of research. Not only are its practitioners not necessarily linguists (ibid.: 13-14), but there also are many studies that may depart from conversational data, but primarily have a quantitative objective, or that simply draw on conversation as material to illustrate a previously identified phenomenon (ibid.: 13). Yet, while the present-day "interactional-linguistic enterprise, when broadly conceived, encompasses not only multiple disciplines but also diverse methodologies" (ibid.: 14), there still are some "essential principles" (ibid.: 14) IL research is supposed to adhere to, namely that

- any data used in research must be authentic, naturally occurring in nature;
- analysts are supposed to adopt a context-sensitive perspective that considers what social action linguistic structures are used to implement (ibid.).

In my study, I will draw heavily on the methodological toolbox developed by CA for descriptively analysing the phenomena under investigation. These analyses will, as recommended by Couper-Kuhlen & Selting (2018: 15) include not only linguistic, but also the bodily-visual means employed by the participants. Beyond this, my research is also informed by the CA-SLA framework, which draws on CA methodology to investigate language learning, and (the development of) L2 IC in particular. This framework will be the last focus of this section.

2.1.3 Conversation Analysis for Second Language Acquisition

Just like IL, CA-SLA[7] is a research branch drawing on CA methodology to pursue research interests outside of the scope of traditional CA (e.g. Markee & Kunitz 2015: 425). While there has been CA research investigating interaction involving language learners, the impetus for doing so usually has been an interest in classroom interaction as one type of institutional talk (for an overview of related research, see Gardner 2013). On occasion, as Brouwer & Wagner (2004: 30) note, there also has been investigation of how a second language may be used as an interactional resource. However, CA has no specific interest in general processes of language learning, and the development of language skills (ibid.: 32). The latter is typically the focus of Second Language Acquisition (SLA), which as a field of applied linguistics encompasses a range of approaches to studying the language acquisition process (for an overview, see e.g. Gass et al. 2020; Saville-Troike & Barto 2017). It was criticism on the general imbalance of the field in favour of research based on cognitive theories on the nature of language and its acquisition raised in the 1990s (Firth & Wagner 1997; see also Firth & Wagner 2007) that proved to be a major influence for the development of CA-SLA (Kasper & Wagner 2011: 127). Firth & Wagner (1997), in their programmatic paper, raise several points

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[7] This abbreviation (e.g. Pekarek Doehler & Pochon-Berger 2011: 206; Pekarek Doehler 2018: 3) appears to be used in synonymy with *CA-for-SLA* (e.g. Hall & Pekarek Doehler 2011: 6; Markee & Kunitz 2015: 425). Similarly, it is noted to stand for a number of terms, among these "conversation analytic SLA research" (Pekarek Doehler 2018: 3), "CA as an approach to second language acquisition" (Kasper & Wagner 2011: 117), "[c]onversation analytic work on SLA" (Pekarek Doehler & Pochon-Berger 2011: 206) and "conversation-analysis-for-second language acquisition" (CA-for-SLA; Markee & Kunitz 2015: 425).

of criticism related to the understanding of language acquisition confirmed by Doughty & Long (2003: 4) to be generally shared in SLA research at that time:

- The general notion that (second) language acquisition is an individual cognitive process relatively independent of any social factors (Firth & Wagner 1997: 287; see also Brouwer & Wagner 2004: 31), which the authors trace back to Chomsky's notion of language acquisition being based on the presence of an innate 'language acquisition device'. Firth & Wagner (1997) further note that due to this, any social aspects contributing to language acquisition, or any perspectives on the process informed by "social, discursive approaches to the nature of mind, as well as competence and knowledge" (:287) are commonly considered to be outside of the scope of SLA. They add that if interactional exchanges between language users are considered in mainstream SLA research, then merely as the site of information transfer between individuals (ibid.: 288), rather than in their impact on language acquisition.

- Corresponding to this notion of language acquisition, the understanding of language as an individually produced display of grammatical competence (ibid.). This "[a]t best … marginalises, and at worst ignores, the social and the contextual dimensions of language" (ibid.: 288) by not taking into consideration that language is, at its core, a set of resources for use in interaction, and something that is collaboratively produced by participants. As Firth & Wagner (1997) note, these aspects should find reflection in SLA theory and methodology (:296; see also Pekarek Doehler 2018: 4).

- The lack of reflection on established, etic concepts and terminology (Firth & Wagner 1997: 286, 288), such as "*errors, input modifications, interference, and fossilisation*" (Firth & Wagner 2007: 801, emphasis in the original), not least because these perpetuate a deficiency perspective on language learners' language use (ibid.).

- The pervasive deficiency perspective, which assumes a clear-cut differentiability between mostly homogenous groups of (normally monolingual) 'native speakers'. In that view, learner language is perceived as, by default, divergent from native speakers' language (which is itself conceived to be the ideal standard constituting the goal for any language learning) and thus as defective, or at best an incomplete version of the learning target (Firth & Wagner 1997: 291-292). By focusing on the monolingual speaker of the L2 as the default target

interlocutor, the authors note, SLA conceptualisation contrasts with most learners' reality (ibid.: 292). There also is little to no appreciation of learners' abilities to successfully accomplish interactional goals, and that any deviations from a standard could be interactionally motivated rather than an expression of competency gaps (ibid.: 293; Firth & Wagner 2007: 801). Similarly, the identity as non-native speaker of a language is considered to be ubiquitously and exclusively relevant for the participants in traditional SLA research, even though it remains unconfirmed whether this categorisation is actually significant to the interactants themselves (Firth & Wagner 1997: 291-292; see also Firth & Wagner 2007: 801).

- The methodological bias (Firth & Wagner 1997: 288) accompanying this conceptual and theoretical imbalance, favouring quantitative, etic and formalised (see also Pekarek Doehler 2018: 3) research based on laboratory-elicited data. Focus is usually restricted to formal learning contexts, and thus to the central site of second language acquisition in its narrow understanding (Firth & Wagner 2007: 804). Additionally, although SLA researchers may employ CA methodology, they commonly "suppress CA's ethnomethodological research agenda" (Brouwer & Wagner 2004: 30), pursuing questions outside of the scope of the CA framework.

Despite engendering some criticism from proponents of 'mainstream' SLA (for an overview, see Firth & Wagner 2007: 802-804), Firth & Wagner's (1997) suggestions for reconceptualising SLA's theoretical notions, terminology and methodology significantly promoted the development of CA-SLA. Most importantly, the authors recommend that explanations for language learning should become more holistic and balanced (Firth & Wagner 1997: 296) by including social cognition as a central aspect (Firth & Wagner 2007: 801-802) equivalent to individual cognition. Established concepts and categories should be revisited from an emic perspective, in particular the notions of 'native' and 'non-native' speaker, and the relationship assumed to hold between them (Firth & Wagner 1997: 286, 296). Instead of learners' shortcomings, more attention should be granted to their accomplishments so as to enable broader insights into how they manage interaction, and how they become able to do so over time (ibid.: 290). Such a perspective would also permit identification of what it is that learners themselves consider problematic, rendering reliance on researcher hypotheses unnecessary (ibid.). In consequence, methodological options should expand to include emic

and interactionally oriented analyses of a wider spectrum of (naturally occurring) learner data (ibid.: 286, 296).

The main objectives of current CA-SLA research are 1) to investigate how L2 users draw on the resources available to them in learning contexts and activities to accomplish their interactional aims (Hall & Pekarek Doehler 2011: 6; see also Pekarek Doehler & Pochon-Berger 2011: 208) and 2) to track "the progressive emergence of L2 procedures for accomplishing situated social actions" (Pekarek Doehler 2018: 3), that is, the development of L2 IC (see also Kasper & Wagner 2011: 118; Markee & Kunitz 2015: 426). Notably, then, the focus of CA-SLA research is not primarily on the acquisition of "'systemic' aspects of language" (Kasper & Wagner 2011: 117; see also Pekarek Doehler 2018: 4), in opposition to 'mainstream' SLA. Rather, as encouraged by Firth & Wagner (1997), it aims to reconceptualise language acquisition as socially and collaboratively accomplished action (Markee & Kunitz 2015: 429).

Generally, Kasper & Wagner (2011: 126) identify two general branches of CA-SLA research pursuing that aim. One of them specifically focuses on how participants in interaction manage to recognisably 'do language learning' as a specific social activity (ibid.: 126-127; see, e.g., Koshik & Seo 2012). This is in line with more traditional CA work such as that investigating constitutive features of institutional types of interaction. The other branch focuses on the development of L2 IC over time (Kasper & Wagner 2011: 131, 134), either in the short term (i.e., within a single interactional encounter; ibid.: 131) or over longer stretches of time (i.e., across several activities; ibid.).

Just like IL, CA-SLA draws some of its core assumptions from CA (see, e.g., Pekarek Doehler 2018: 8; Kasper & Wagner 2011: 122), but also has additional premises on which its inquiries are based. Central among these is that language learning and social interaction are intrinsically related to each other: Language is acquired so that it can be used to accomplish social action in interaction (Firth & Wagner 1997: 296), and its acquisition takes place in interaction (Pekarek Doehler & Pochon-Berger 2011: 206) through language being used for interactional purposes (ibid.; Firth & Wagner 2007: 806; see also Pekarek Doehler 2018: 4). In other words, language learning is a 'socially situated' activity and a social accomplishment (Pekarek Doehler & Pochon-Berger 2011: 208) which is neither always purposeful nor restricted to any particular type of interactional context (Firth & Wagner 2007: 807).

In consequence, language learning – as both the process and the product – can only be fully understood if studied via micro-analytic research drawing on diverse types of authentic, consequential learner interaction (ibid.; Kasper & Wagner 2011: 118). While proponents of CA-SLA regard the use of CA methodology as highly promising to that end, there has been some discussion on whether it is suitable for the research interests it is supposed to help pursue (see also section 1.1.5) – chief among the concerns is whether cognitive processes can be investigated with the CA approach (for a discussion, see, e.g., Kasper 2006: 91-93), or whether it may not be necessary to draw on other, pre-existing theories about language learning (Markee & Kunitz 2015: 430; see also Lilja 2014: 100). Evidence has been provided that some processes typically regarded as cognitive in nature are reflected in interaction and thus observable as well as analysable, "obviating the need to construe hidden internal processes behind observable behaviour" (Kasper & Wagner 2011: 121). This applies to, for instance, a speaker's understanding of prior talk, which becomes available for negotiation (and thus analysis) through understanding displays (Kasper & Wagner 2011: 120), but also holds true for language learning in general (Pekarek Doehler & Pochon-Berger 2011: 206; Markee & Kunitz 2015: 426, 429), which Firth & Wagner (2007: 807, emphasis in the original) consider "an instance of social *cognition in the wild*".

Furthermore, in contrast to 'mainstream' SLA, CA-SLA does not consider a participant's status as an L1 or L2 speaker an automatically relevant identity that interactants consistently orient to (Kasper & Wagner 2011: 121), though these identities may become and be treated as relevant by the participants through particular practices, such as 'doing (word-) searching' (ibid.). In fact, regardless of whether participants are speaking a particular language as an L1 or and L2, they are always perceived as competent interactants whose methods can be described by the researcher as a full-fledged system for sense-making (ibid.: 122).

As mentioned before, there are some issues entailed by using CA methodology for investigating questions related to language acquisition. Beyond the aforementioned questions regarding the general usability of the methodology, Kasper & Wagner (2011: 123) indicate that transcribing the data, in particular, may be problematic if the L2-specific characteristics of talk such as accent are to be represented in a non-stereotyping manner. Some of the issues have already been responded to, resulting in a CA-SLA methodology that not only differs significantly from 'mainstream' SLA methodology, but also departs from the methods employed for 'traditional' CA research. For

instance, researchers in the CA-SLA framework "have … embraced the methodological need to engage in *longitudinal* research as part of their overall response to classical SLA criticisms of CA's alleged inability to address learning issues" (Markee & Kunitz 2015: 430, emphasis in the original) in order to carry out research on developmental patterns. They may draw on both longitudinal and cross-sectional data (Kasper & Wagner 2011: 134; see, e.g., Lee & Hellermann 2014) for this purpose. Still, as is the norm for a research approach drawing on CA methodology, any data used should be naturally occurring in nature. Ideally, it would be recorded from interaction "anywhere along a continuum of contexts, whose poles are informal learning that takes place 'in the wild' and formal learning that occurs in the classroom" (Markee & Kunitz 2015: 426; see also Brouwer 2003: 534; Kasper & Wagner 2011: 134-135).

Having now provided insight into the theoretical frameworks in which my research is located, it appears pertinent to undertake an additional general localisation of my study by relating my own efforts at contributing to the development of a rating scale for L2 repair skills (and thus, in the long term, to that of a rubric for L2 IC) to the broader field of research concerned with rating scale development. This will further clarify the relevance of using CA methodology and drawing on the IL and CA-SLA frameworks for the project at hand –making L2 IC assessable. Section 2.3 will mark the return to the introduction of conceptual and terminological basics. There, I will introduce the central machineries underlying interaction (and thus, the recurrent interactional tasks that any language user needs to be able to accomplish, and thus requires interactional skills for).

2.2 Approaches to the Development of Assessment Scales

As section 1.1.5 shows, research concerned with finding valid instruments for the assessment of interactional skills has often focused on the tasks learners are confronted with during language testing, and the general methods employed to elicit their performances. Available studies widely agree that if a test is to ascertain a learner's ability to successfully deal with recurrent interactional problems, the assessment methods and tasks need to be chosen based on which of them would require participants to produce talk that most closely resembles authentic interaction (e.g. Kley et al. 2021; Plough et al. 2018; see also Hırçın Çoban & Sert 2020: 65). Many well-established assessment

methods, including DCTs and closed role-plays (Youn 2013: 6) are found to be un-suitable for that purpose. Even the usability of the oral proficiency interview (OPI) for IC assessment is debated: It is noted that this method does not elicit conversational talk (Okada 2010: 1664; see also Ikeda 2017: 30; Okada 2010: 1665 provides an over-view of further research), although there are arguments that this does not mean partic-ipants do not exhibit interactional skills when engaged in it (Okada 2010: 1665).

Even if tests utilise methods allowing for the observation of interactional skills, however, "the promise of a more complex and complete picture of the examinees' ability to use language" (Turner & Upshur 2002: 50) remains unfulfilled should the rating instruments (i.e., the assessment scales and rubrics) not supply examiners with the information they need to identify core cues indicating the extent of L2 IC displayed (ibid.). Against that background, I have previously (section 1.1.4.3) provided an initial discussion of some rating scales and assessment tools including, or at least referring to, IC. To position my own research in the broader field, as one attempt at contributing to the development of valid instruments for assessing L2 IC, I will now briefly provide general remarks on

- possible methods for the development of assessment scales,
- strengths and weaknesses of instruments resulting from these methods, and
- some specific methodological approaches that may be used to identify criteria to potentially include in a scale used for the assessment of L2 repair skills.

Literature shows that there is a broad range of established models and methods utilised to design rating scales that are used for language testing, or testing speaking skills in particular. A general distinction can be made between 'measurement-driven scales' and rating scales that are developed on the basis of authentic learner performances (Fulcher et al. 2011: 6).

2.2.1 Measurement-Driven Methods

The measurement-driven approach commonly is considered to be the one better estab-lished and more widely employed, and frequently eschews drawing on learner data outside of identifying illustrative examples to include in fully designed scales (Fulcher et al. 2011: 6). The name of the category derives from a set of methods which follow principles of Item Response Theory (Council of Europe 2001: 210), and thus depend

on measurement models to derive both criteria for proficiency measurement (:211) and descriptors reflecting scaling in terms of those criteria. Scales resulting from these methods may be characterised as "empirically derived" (Fulcher et al. 2011: 7), as statistical analysis is employed (Council of Europe 2001: 2010). However, the approach notably does not itself entail any analysis of genuine learner data (Fulcher et al. 2011: 7).

One set of scales based (partially, but not exclusively; Council of Europe 2001: 211), on measurement-driven methods in this narrow sense are those presented in the CEFR. Other methods that were utilised to develop the CEFR scales are the so-called '*a priori*' (Fulcher et al. 2011: 7) or intuitive methods (Council of Europe 2001: 207-208). These are also included in the broad measurement-driven category proposed by Fulcher et al. (2011) and involve the construction of scales by a single person considered an expert or a group of experts, who a) may or may not let themselves be informed by previous scales and relevant documents (e.g., curricula) in addition to their own understanding of what the target construct is and entails, and b) may or may not choose to proceed in a recursive fashion, including pilot and revision phases (ibid.: 7; see also Council of Europe 2001: 207-208). Scales currently utilised for assessment of speaking skills most often are based on such intuitive methods (Council of Europe 2001: 207). This likely includes the scales used for the Cambridge English Qualifications tests: Nakatsuhara et al. (2016) note that of the examiners recruited for their study – highly experienced teaching professionals – some already were involved in the development of the IC scales included there (:11).

Scales developed in this manner may profit from high generalisability (Council of Europe 2001: 211), but measurement-driven scaling also has been noted to carry significant weaknesses:

- While it is likely that *a priori* scaling is based on some theoretical foundation, any understanding of language and language use, of proficiency and speaking skills that underlies the scaling process is unexplicated (Fulcher et al. 2011: 7). This complicates the practical application of scales, as the user will interpret them on the basis of their own individual understanding of these notions. The same scale, then, may be taken to mean very different things.
- Descriptors that are developed via measurement models often show inconsistencies across levels, as certain criteria are indicated to be relevant on specific

levels only (ibid.: 8). The reasoning behind those decisions often remains intransparent. When the same criteria are referred to across levels, distinctions tend to be indicated through vague grading adverbs only (ibid.).

- The high generalisability of scales developed through measurement-driven methods also constitutes one of their main weaknesses, as they do not allow for the consideration of contextual contingencies in the rating process (ibid.: 8).

In all, Fulcher et al. (2011) provide a compelling argument that "[m]easurement-driven scales suffer from descriptional inadequacy" (ibid.) – and that, when trying to identify criteria and construct scales that can be used for the assessment of speaking in general (and IC in particular), it is much better to utilise genuine speaker data.

2.2.2 Performance-Driven Methods

In particular, Fulcher et al. (2011) advocate for choosing a qualitative approach to the development of rating instruments: After collecting authentic learner data, it should first be transcribed, and then subjected to micro-analysis utilising conversation-analytic (or discourse-analytic) methodology (:9). This way, central features in the speakers' conduct indicating discriminability between levels could be identified and analysed in detail (ibid.). The results of that analysis could then be used to construct a scale (ibid.). This procedure is noted to be eligible for the development of assessment instruments incorporating interactional aspects (ibid.; see also Fulcher 1987: 288-291), and has in fact been adopted as one of the main methods for constructing scales meant for the 'interaction-sensitive' (Youn 2013: 34) assessment of learner performances (:48; Ikeda 2017: 64). A very recent example of this kind of approach is presented in Walters (2021). He draws on mostly unscripted dyadic interactions between L2 English test-takers and and the researcher (:392) to revise an existing rating scale (:394) centred around interactional phenomena that are "well-documented in the CA literature and thus … considered to be reasonable candidates for the articulation of a test norm" (:392). In his CA-based analysis, Walters (2021) focuses on the degree to which the learners' conduct deviates from what has been reported for L1 interaction. On that basis, he is able to propose a more sophisticated operationalisation of the interactional skill the scale focuses on (ibid.: 394, 397) and thus can construct "a tentative, data-driven, assessment-framework based on a norm [as reported in CA literature, SR]"

(:397). He argues that the criteria proposed can serve as "evidence of native-like pragmatic competence" (ibid.: 395, see also p. 397), thus fulfilling language-testing practitioners' need for criteria that can be scaled in terms of continuity from beginner- to advanced-learners levels (:387). At the same time, Walters (2021) demonstrates the usability of CA methodology for the development of IC assessment criteria and scales despite the general argument that "CA and LT [language testing, SR] lack sufficient paradigmatic overlap to make joint-contributions to L2 classroom instruction meaningful" (:383; see also Salaberry & Burch 2021: 10; Youn 2013: 37).

While Fulcher et al. (2011) concede that such a direct performance-driven process is very time consuming, and the resulting scales may be very context-specific and challenging to use in practice (:9; see also Youn 2013: 37), they also note that it allows the construction of scales that adequately reflect the target construct's complexity, and thus can claim far more validity than measurement-driven scales (Fulcher et al. 2011: 23; Youn 2013: 37). Even other 'performance data-based methods' (Fulcher et al. 2011: 9) often cannot produce similarly adequate features (ibid.).

One frequently employed alternative performance-driven method entails the provision of learner data to raters whose evaluations are then analysed (qualitatively or quantitatively) to identify the features that most prominently impact rating decisions (Council of Europe 2001: 208-210). A number of well-used rating instruments are (partly) based on this approach, including the CEFR scales (ibid.: 208), the IELTS scales (:209) and the checklist proposed by Nakatsuhara et al. (2016: 13-14). One major flaw of methods which indirectly draw on learner performances should be noted, however: While based on authentic learner data, the approach very closely resembles the intuitive/*a priori* methods introduced in the previous section. Criteria and scales are identified on the basis of secondary data produced by experts, with the actual learner conduct thus being filtered through these experts' conceptualisations of the target construct. In addition to the general problems of measurement-driven scale design I discussed in section 2.2.1, there also is the real danger of traditional models of L2 competence being perpetuated and sedimented, thus impeding the consideration of new insights generated by research. As noted by Roever & Dai (2021), "there is some incipient evidence that IC does measure unique variance not encompassed by speaking, or a psycholinguistic conceptualisation of proficiency" (:33). This is why revisiting existing scales after conducting conversation-analytic analyses of learner data is likely to reveal that a revision of those scales is essential before they can be used to

assess interactional skills (Walters 2021: 397). However, without a shift in the dominant types of scale development methods, or at least some way of making sure that experts entrusted with the development and revision of assessment scales are familiar with current research relevant to the construct(s) to be evaluated, it is unlikely that the instruments which are actually needed to carry out well-rounded language tests will gain the necessary traction.

My study carries out the first steps of a performance-driven approach similar to, but not entirely the same as, Walters' (2021) method: While I will draw on both a review of existing literature on L2 repair and CA methodology, I will not focus on ascertaining to which extent the learners' repair conduct is 'native-like'. My approach more closely resembles that originally proposed by Fulcher et al. (2011): My analyses will aim for the identification of aspects of repair work in which learners can be seen to differ from each other, and for the in-depth description of these differences. The results of my analysis will provide further insight as to whether this kind of approach is indeed feasible – that is, whether it is possible to derive candidate criterial features for the assessment of a particular interactional skill from CA/IL-based analyses.

Having now provided insight into the general theoretical and methodological frameworks my research will draw on, and into an ongoing discussion I aim to contribute to, I now turn to introducing basic concepts and terminology that will become relevant in my analyses.

2.3 Making Interaction Work: Central Machineries

I have previously (e.g., section 1.1.3) referred to the generic organisations underlying successful interaction, and that the organisation of repair constitutes one of them. Since these generic organisations (or, 'machineries'; see Sidnell 2010: 2) are fundamentally intertwined, so that all of them have to be referred to in order to fully explain the 'why that now' of any given utterance (ibid.), I will briefly introduce them in the following sections. My focus will be on basic concepts and terminology, so as to provide the groundwork for my own analyses in Chapter 5 – detailed reviews of specific practices that participants commonly utilise in order to orient to the underlying organisational patterns are available elsewhere (e.g. Couper-Kuhlen & Selting 2018).

Apart from making my CA analyses understandable, an introduction of these organisations is pertinent to this study because they correspond to the "generic organizational contingencies of talk-in-interaction without which it cannot proceed in an orderly way" (Schegloff 2007: xiv), and which participants therefore have to deal with whenever they engage in interaction. It is the ability to do so that L2 learners need to acquire. Thus, the generic machineries of interaction correspond to the core L2 interactional skills in need of operationalisation to allow for the identification of relevant teachables and potential assessment criteria (see also section 6.1). After introducing each of the organisations, I will briefly summarise existing CA-SLA research on how learners' abilities in carrying out the respective interactional tasks develop over time. As my study focuses on L2 repair skills only, this is meant to provide a starting point for future research further pursuing the longterm objective of developing material for the comprehensive assessment (and teaching) of L2 IC in EFL classrooms.

Schegloff (2007) lists six central 'problems' that participants need to deal with: The 'turn-taking' problem, the 'action-formation' problem, the 'sequence-organizational' problem, the 'trouble' problem, the word-selection problem and the overall structural organization problem. With the exception of the 'trouble problem', which is dealt with through the organisation of repair (to be introduced in detail in Chapter 3), and the overall structural organisation problem, which I will only briefly touch upon when discussing the notion of sequential organisation, in the following I will focus on each of the organisations participants orient to, starting with the turn-taking organisation.[8]

2.3.1 Turn-Taking Organisation

Foundational literature (Sacks et al. 1974) investigating how participants in conversation manage to accomplish the exchange of speakership (i.e., *turn-taking*) in an orderly way departs from a number of 'grossly apparent facts' (:700-701). As was revealed by thorough observation of everyday interaction (ibid.: 699),

- participants interchangeably have claim to the floor (ibid.: 700);

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[8] As I hinted at the beginning of this section, my dedicating separate chapters to the generic organisations underlying interaction should not be taken as implication that they constitute self-contained systems that are fully independent of each other. Rather, the different organisations interlock in complex ways, and the mode of presentation chosen here (and, indeed, by many other writings introducing the basics of CA research) is used for the sake of accessibility only.

- simultaneous talk is relatively rare, and speaker change can be timed accurately enough to avoid this and notable lapses in talk (ibid.: 700-701);
- when there is simultaneous talk, it is usually very short in duration (ibid.: 700) – further research has shown that there also are limits on where within a turn such simultaneous talk can occur (for an overview, see Hayashi 2013: 175-177; see also Couper-Kuhlen & Selting 2018: 103-104);
- notable lapses between turns do occur (Sacks et al. 1974: 701), but are clearly in the minority;
- little about conversation is predetermined in nature, neither regarding its length, general trajectory or participant structure nor in regards to the content or design of individual utterances (ibid.);
- participants have access to a specific 'repair mechanism' in case they encounter problems with changing speakership (ibid.).

As Sacks et al. (1974) note, these facts constitute evidence that there must be some generic turn-taking organisation that underlies conversation, which is oriented to by the participants (:699). Their observations therefore motivated the enquiry into the particulars of that system (ibid.). The insights gained from this investigation can account for the facts listed above (ibid: 701) – that is, any of the facts become explicable through understanding the turn-taking organisation for conversation.

The turn-taking organisation allows participants to deal with recurrent issues such as "who should talk next and when should they do so?" (Schegloff 2007: xiv). Although there are some aspects of the organisation of turn-taking that may vary across cultures, in its general makeup (i.e., regarding the components and rules discussed below) it is likely to be universal (Couper-Kuhlen & Selting 2018: 33). Sacks et al. (1974) posit a context-free and context-sensitive set of norms, that is, organisational principles that at the same time are independent of when and where conversation takes place, as well as who participates in it (:700; see also p. 699, fn 8) but still allow adaptation to momentary, local contingencies (:700, see also Clayman 2013: 151)[9]. These norms are summarised as a combination of "two components and a set of rules" (Sacks et al. 1974: 702). As such, literature on turn-taking distinguishes between the

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[9] It is worth mentioning that Sacks et al. (1974) specifically focus on conversational turn-taking, that is, the management of speaker change in informal, everyday interaction. Such specificity is necessary, given that CA research has established that how turn-taking is organised constitutes one of the main ways in which "speech-exchange systems" (:701) may differ from each other.

turn-constructional component and the *turn-allocation component*. I will briefly review the central aspects of both components in turn.

2.3.1.1 The Turn-Constructional Component

Positing a 'turn-constructional component' implicates that turns themselves do not constitute the 'base' units of interaction, but can be analysed into constituents. Indeed, one central terminological distinction to be made is that between the *turn*, defined as an "utterance … that speakers produce when they occupy the floor" (Couper-Kuhlen & Selting 2018: 34) and as an opportunity to accomplish action (Hayashi 2013: 167; see also Sacks et al. 1974: 696), and the *turn-constructional unit* (TCU), which is conceptualised as the building block that can constitute a turn on its own (single-unit turn) or in combination with other TCUs (multi-unit turn; Sacks et al. 1974: 704; see also Couper-Kuhlen & Selting 2018: 34). TCUs are recognisable as potentially independent utterances (Clayman 2013: 151) – this possible completion is not restricted to syntax, (cf. ibid.), but also refers to potential completeness on the prosodic and pragmatic levels (Schegloff 2007: 3-4; see also Clayman 2013: 152; Ford & Thompson 1996: 172). Participants' ability to take turns in an orderly way is fundamentally dependent on this conceptualisation of TCUs: Since competent speakers of a language share knowledge of the types of syntactic structure and prosodic designs that can be used to recognisably accomplish an action, possible points of turn completion become projectable, and with them places at which speaker change might happen (Sacks et al. 1974: 702). In fact, "turns at talk are constructed so as to foreshadow or project their possible completion points" (Clayman 2013: 151) – in other words, participants observably orient to speaker change as a ubiquitous relevancy. Any TCU completion entails a *transition-relevance place* (TRP), a point at which speaker change is an option (but not a necessity; ibid.). Hence, participants are always entitled to one TCU only at a time, with any longer turn being an interactional achievement requiring considerable work (Sacks et al. 1974: 704).

An important point to make at this time is that while TRPs are best recognisable when there is simultaneous possible completion on all three dimensions described above, interactional reality shows that such convergence is not necessarily a given, on occasion rendering it ambiguous whether or not a completion point has been reached (Clayman 2013: 158). Similarly, Couper-Kuhlen & Selting (2018) remark that "in naturally occurring conversational interaction we often find not only discrete and easily

identifiable units that can be described with the help of fixed clusters of parameters, but also many fuzzy units that can only be captured with reference to varying phonetic parameters that may or may not cluster" (:32). Prosodic completion in particular may therefore be less than straightforward to ascertain (see Barth-Weingarten 2016). This potential for ambiguity may be utilised by both current speakers aiming to hold the turn and participants waiting to claim the floor (Clayman 2013: 158)[10].

That there is a potential for TCUs to recognisably reach possible completion without converging cues is of particular relevance to my data. I recurrently can observe that my learners do not produce a syntactic completion point as it would be expectable in L1 talk, but still manage to indicate possible completion through another of the dimensions. It is important, therefore, to keep in mind that "descriptions [of TCUs, SR] must not become mechanistic" (Couper-Kuhlen & Selting 2018: 52), but that the context is a major factor in determining what might be recognisable as an adequate TCU.

2.3.1.2 The Turn-Allocation Component

Upon reaching a TRP, participants have access to "ordered procedures … to determine who shall speak next" (Clayman 2013: 151). In particular, a current speaker may have used some practice for selecting a specific next speaker, or a co-participant may attempt self-selection (Sacks et al. 1974: 703). Notably, these option are not equal alternatives, but rather follow a particular order (ibid.: 704; see Figure 1).

Upon reaching a TRP, priority is given to any move the current speaker has made to select someone else as next speaker – if this applies, then the co-participant in question both has the exclusive right and responsibility to the floor (ibid.). If no-one has been selected by the end of the TCU, however, any co-participant may (but need not) raise a claim to speak next, with the first person to start commonly succeeding (ibid.). If nobody raises a bid for speakership at the TRP, the current speaker may choose to continue talking (ibid.), although this is, again, not mandatory. Should turn-continuation happen, the norms will apply again at the next TRP, and the ones after, until speaker change takes place (ibid.).

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[10] That participants can be observed to draw on design ambiguities as a resource showcases that boundaries between interactional units, and the ability to locate them, are not merely an analytical concern (particularly of researchers approaching talk-in-interaction from a linguistic perspective), but in fact are highly relevant for the participants themselves.

while a turn is in progress

if current speaker
selects next speaker

only if current speaker does
not select next speaker

at the next TRP

selected speaker
should take turn

if any co-participant
self-selects

only if no co-participant
self-selects

(first) self-selecting speaker
takes turn

current speaker may (but
need not) continue
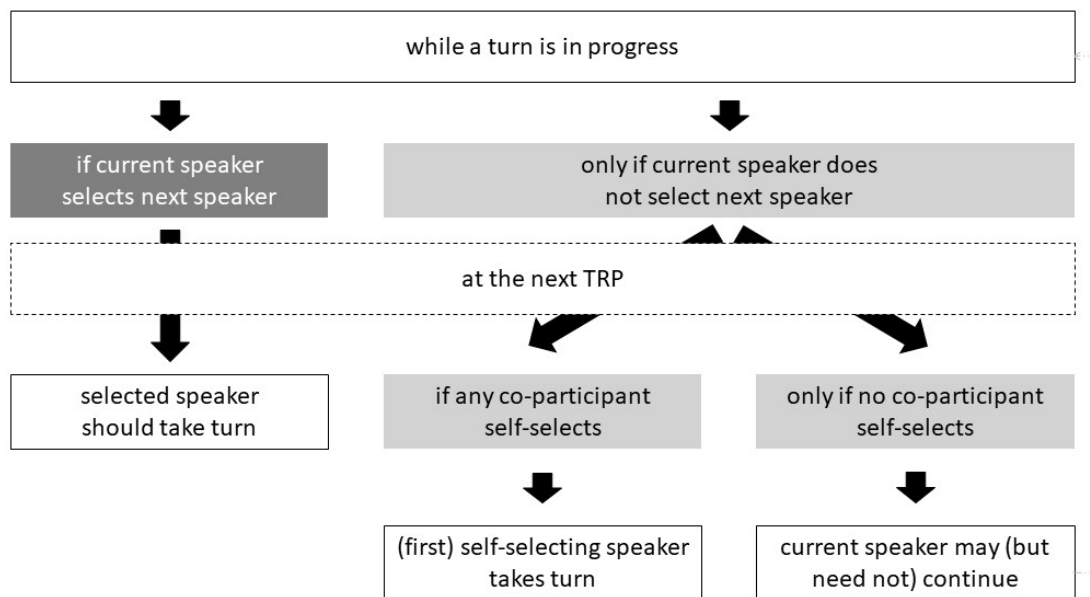
Figure 1. The turn-allocation component

To ensure unproblematic turn-taking, "lower-priority rules … constrain the use of higher-priority options" (ibid.: 705) – higher-level options must be implemented within a restricted time frame to avoid latter-order options becoming relevant (ibid.). Even so, there are practices which current speakers can utilise in order to prevent self-selection, and thus hold their turn beyond the first TCU they are entitled to (Clayman 2013: 152). They may, for instance,

- minimise the transition space or otherwise obscure an incipient TRP (e.g., by suppressing cues indicating upcoming TCU completion; ibid.: 159-164);
- project that there is more to come through pragmatics, lexico-semantics etc. (e.g., by employing ordinals to indicate that a list is being produced; Couper-Kuhlen & Selting 2018: 61)
- project an action type that commonly necessitates a multi-unit turn to accomplish (e.g., story-telling; ibid.).

In any case, turn-holding requires that the co-participant(s) comply with the current speaker's attempt to do so, further cementing that multi-unit turns are interactionally achieved, rather than the result of individual efforts (ibid.: 31).

2.3.1.3 The Development of Turn-Taking Skills

Previous research on L2 learners' turn-taking work suggests a number of aspects that may be used to assess L2 turn-taking skills. Among others, comparisons between lower-level and more advanced language learners reveal that over time, learners

- develop the ability to time their incomings in an increasingly precise way, with delays decreasing in terms of frequency as well as extent (Galaczi 2014: 561-562, 566-568; Ikeda 2017: 184-185, 188, 192; Youn 2013: 83);
- provide increasingly clear indication of upcoming TRPs and utilise current-selects-next techniques (Galaczi 2014: 566; Ikeda 2017: 184-185, 192, 195).

Additionally, Walsh (2013: 50) suggests that learners may differ in terms of the proportion to which the overlaps they produce are competitive or non-competitive in nature. He hints that a predominance of overlaps resulting from the use of continuers (rather than from interruptive attempts at gaining the turn) displays fairly advanced turn-taking skills.

While there is indeed no predetermined order in which participants speak, and turns can be described as occurring in a series, sporting backwards and forwards connections to surrounding turns (Schegloff 2007: 1), there are underlying principles that organise in which order and combinations turns may occur. The system of these principles is referred to as *sequence organisation*[11]. I will turn to this generic organisation next.

2.3.2 Sequence Organisation

A number of interactional phenomena are far easier to explain if interaction is understood to be organised in sequences, and sequence organisation is recognised to exist as a normative framework that interactants have access to, and orient to. For one, this helps account for the fact that participants generally are well able to understand each others' utterances, as I will discuss in more detail in section 2.3.3. Furthermore, it is likely due to sequence organisation that participants can ensure that "a more or less eventually aimed-for successive utterance or utterance type will ever be produced" (Schegloff & Sacks 1973: 297).

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[11] Terminologically, 'sequence organisation' needs to be differentiated from 'sequential organisation'. According to Schegloff (2007: 2), the latter refers to the general concept of social interaction being based on a number of organisational principles ordering interactional units so as to allow participants to achieve interactional aims. Sequence organisation is one type of sequential organisation; others are turn-taking, which determines the ordering of TCUs (ibid.), and overall structural organisation, which orders interactional encounters as a whole (ibid.).

2.3.2.1 Sequences, Courses of Action, and Projects

Central to the concept of sequence organisation is the notion that interaction is organised not with regard to topical content, but rather so as to enable the accomplishment of social action and projects (Schegloff 2007: 1). Since turns (or, TCUs) are what participants carry out actions with, they are considered the "basic unit of talk" (Selting 2000: 477). The *sequence*, which permits participants to pursue courses of action (or, activities), may be considered another central type of interactional unit (Schegloff 2007: 2).

Couper-Kuhlen & Selting (2018) define sequences as "coherent, orderly, and meaningful successions of turns, brought about when participants collaboratively pursue courses of action through turns at talk" (:328-329). However, these courses of action do not necessarily correspond to a shared *project*, or 'plan of action' (Levinson 2013: 122). This is the case in some of my data: In their role-plays, my intermediary-level learners can be said to pursue the same course of action (arranging a get-together) but conflicting projects (i.e., different ideas regarding the activities for that get-together). In line with this distinction between course of action and project, sequence organisation, in this book, is conceptualised in conformity with Schegloff (2007), as "the organization of courses of action enacted through turns-at-talk" (:2).

2.3.2.2 Adjacency Pairs and Sequence Expansion

The *adjacency pair* is commonly understood to be the basic type of sequence and what most courses of action are built around (Stivers 2013: 192), although there are sequences that are organised differently (Schegloff 2007: 9). As noted by Schegloff & Sacks (1973: 295-296), adjacency pairs are characterised by five central features:

- They consist of two turns-at-talk;
- These turns occur in directly neighboring slots, that is, they are *adjacent* to each other;
- The turns are produced by different participants;
- The constituents of an adjacency pair can be conceptualised as first pair parts (FPPs, which carry out initiating actions) and second pair parts (SPPs, which carry out responsive actions), indicating that the turns making up an adjacency pair occur in a set order;
- The FPP determines which type(s) of SPP may be produced in response (i.e., turns making up an adjacency pair are 'pair-typed').

62

This configuration of features, however, describes the *prototype* of an adjacency pair rather than a set of attributes that all are constitutive of the concept. It is common for adjacency pairs to depart from this prototype in one or even several ways (Schegloff 2007: 14): For instance, SPPs recurrently do not occur in the immediately next turn after an FPP, but still recognisably provide the response made expectable (i.e., *conditionally relevant*) by the production of the initiating action (Stivers 2013: 206). The norm of conditional relevance may be called the "basic rule of adjacency pair operation" (Schegloff & Sacks 1973: 296): Once it becomes clear that a turn is implementing an FPP, the production of a type-fitting SPP becomes expectable upon the next opportunity (ibid.) – that is, once the current turn reaches its next-due TRP. If such a next-due action is not produced, it becomes "noticeably, officially, consequentially, absent" (Schegloff 2007: 20). In producing something that is clearly unrelated to the course of action initiated by the FPP, or keeping silent entirely, a co-participant acts in a way that will occasion inferences by other interactants.

Some representative examples of adjacency pairs are invitation – acceptance/declination, or request for action – granting/denial (Stivers 2013: 192). By producing an SPP made relevant by the FPP, a speaker displays their understanding of the previous turn as carrying out a specific, type-fitted initiating action, and at the same time indicates how they align with the course of action proposed by the FPP (Schegloff & Sacks 1973: 297-298). Notably, many FPPs do not make one specific action relevant next, but rather allow for several responsive actions (Schegloff 2007: 16). Just as with the turn-allocation rules discussed in section 2.3.1.2, when there are multiple fitting SPPs, they are not equal alternatives, but rather differ in terms of their status: They are preferred (e.g., acceptance) or dispreferred (e.g., rejection) responses to an initiating action (e.g., invitation; see section 2.3.4 for a detailed discussion of the concept of preference).

As noted by Schegloff (2007: 9), the adjacency pair can be considered a building block for sequences, analogous to the TCU as a basic unit that can constitute a turn on its own, or be combined with other TCUs into multi-unit turns (see also Stivers 2013: 193). Some courses of action are accomplished with single adjacency pairs, although often extensive sequences are built around them through various types of expansion. In that case,

- since sequence expansions usually are adjacency-pair-based sequences as well, the speakers co-construct a complex hierarchy of sequences. The adjacency

pair carrying out the actions central to the course of action at hand, and thus determining the type of sequence under way, is called the *base adjacency pair* (Couper-Kuhlen & Selting 2018: 215, 329);

- the base FPP may be preceded by a pre-expansion (Schegloff 2007: 26) that recognisably projects either the possible occurrence of a base FPP in general (:29) or a specific incipient initiating action (ibid.; see also Stivers 2013: 193-194);

- following the base FPP, an insert expansion may be initiated, recognisable as such because it does not constitute a conditionally relevant base SPP, but still contributes to the course of action. Either it orients to some sort of problem with the base FPP (post-first), or it serves to establish whether the preconditions for producing the (preferred) SPP are met (pre-second) (Schegloff 2007: 97-107; see also Stivers 2013: 194-196);

- after a recognisable base SPP has been produced, and the sequence therefore has reached a possible point of completion, there may be further expansion(s), to indicate either that the base SPP is fitting and serviceable as is, or that more work needs to be done before the course of action has been satisfactorily accomplished (Schegloff 2007: 115; see also Stivers 2013: 197-200).

2.3.2.3 The Development of Sequence-Organisational Skills

There is some research regarding the development of L2 sequence-organisational skills over time, indicating that learners progress from limiting themselves to contributing to minimal sequences to being able to co-construct expanded sequences: "The differences between early and later encounters are found in the complexity of the emerging structures which build on earlier talk and topics and where we can see increasing display of understanding by both participants" (Brouwer & Wagner 2004: 44). This pattern may be connected to the observation that lower-level learners are not always able to produce conditionally relevant next actions (Youn 2013: 66) – the less advanced they are, the less likely it is that learners will be able to provide a responsive action at all, or if they do, that it will be type-fitted (:70, 82).

As I noted at the beginning of this section, CA research rests on the assumption that interactants' main objective in producing utterances is to accomplish social action. Hence, turns are defined on the basis that they constitute, and are valued as, an opportunity for a participant to accomplish action, while sequences are understood as highly

structured combinations of turns meant to allow the pursuit of courses of action. It is time now to discuss how participants deal with what Schegloff (2007: xiv) calls the 'action-formation problem', that is, how participants ensure that the actions they aim to accomplish (i.e., the 'main job' of a turn; Levinson 2013: 107) are recognisable as such to their co-participants.

2.3.3 Turn-Design and Action Ascription

I have already briefly mentioned one central resource that speakers draw on to accomplish and ascribe action[12] in section 2.3.2: *Sequential position*. Where exactly a turn occurs has a significant impact on what that turn could achieve. Importantly, sequential position refers to more than just a turn's location within a sequence as defined in the previous section. While earlier turns within a sequence certainly leave their mark on the turn at hand by "creat[ing]… expectations about what its action will be" (Couper-Kuhlen & Selting 2018: 217; see also Levinson 2013: 110), the current stage of the interactional encounter and the project that is being pursued may be just as relevant in restricting which types of action are feasible to occur next, or at all (Levinson 2013: 109-110, 117, 127).

Especially in those instances in which the sequential position does not have a strong effect in that regard, however, it becomes clear that participants also draw on a different source of evidence to ascertain what the current speaker's turn is accomplishing (Levinson 2013: 109-110) – the turn's *composition* (Schegloff 2007: 20). To implement certain actions, participants can be observed to draw on practices, that is, they utilise (combinations of) interactional resources in specific contexts (Couper-Kuhlen & Selting 2018: 216). These resources encompass syntactic structures, morphological forms, phonetic and prosodic features, lexis, turn content as well as embodied cues such as gaze, gestures and movement (ibid.; see also Drew 2013: 132; Levinson 2013: 110-111). While there may well be cases in which one or the other proves to be more

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[12] As Levinson (2013) comments, often the term 'action recognition' is employed to refer to the process of inferring which action a co-participant is accomplishing through their turn (:104). However, he proposes that 'action ascription' be used instead, so as to avoid any implicit suggestion that there is one single, correct action that can be identified by the recipient. Levinson argues that using 'action ascription' better heeds the fact that actions are not unilaterally carried out, but always result from a negotiation process (ibid.): The term refers to "[t]he assignment of an action to a turn as revealed by the response of a next speaker, which, if uncorrected in the following turn(s), becomes in some sense a joint 'good enough' understanding" (ibid.).

useful for action ascription, in general both position and composition of an utterance are considered essential (Couper-Kuhlen & Selting 2018: 217; Levinson 2013: 117). Additional factors may be relevant as well, such as "the larger institutional framework and the social roles thus ascribed to participants" (Levinson 2013: 104) in non-conversational forms of interaction.

It is to be noted, though, that research on turn design shows that there are no one-on-one relationships between specific actions and practices (Couper-Kuhlen & Selting 2018: 216). Rather, a turn's position, its design, and the action that it is meant to achieve mutually influence each other. As such, while a turn's design doubtlessly serves to permit action ascription, it has been observed that subtle choices may be made in response to specific interactional contingencies, for instance reflecting the degree to which a speaker feels entitled to having a request fulfilled (Levinson 2013: 115; see also Curl & Drew 2008: 130; Drew 2013: 144-145). Furthermore, regardless of the action being performed, Drew (2013) notes that

- turns tend to be designed in a way that shows them to be following up on prior talk: "Speakers design their turns to be connected to prior turns, and to display to the other speaker(s) that coherence or connectedness with the ongoing talk" (:134). Continuity between turns constitutes the default in interaction (ibid.: 136), so if a turn does not serve to further some ongoing trajectory of talk, this commonly needs to be explicitly indicated through disjunctive turn design (:138);

- when designing turns, speakers clearly orient to their co-participants, for instance taking into consideration their knowledge, and what relationship the speaker and the co-participant share (:148; for an introduction to the notion of 'recipient design', see Sacks et al. 1974: 727).

One main focus of CA-SLA research has been the investigation of the means that learners draw on for interactional aims, and how their inventory of L2 practices develops over time. It has been established that

- over time, L2 learners can be seen to start diversifying their inventories by gaining access to new, increasingly L2-like practices (Pekarek Doehler & Pochon-Berger 2011: 206-207, 237; see also Ikeda 2017: 156; Youn 2013: 62-81) for accomplishing certain types of action, or by expanding the range of uses of an already available practice (Pekarek Doehler & Pochon-Berger 2011:

209). Such diversification permits the increasingly context-sensitive deployment of practices (ibid.:217, 237);

- multimodal practices that emerge at beginner-level change over time, with the learners being increasingly able to employ verbal practices, and embodied components of the original practice becoming available as separate interactional resources that may be drawn on independently (Eskildsen & Wagner 2018: 166). This constitutes a further option for the expansion and diversification of inventories of practice;

- L2-specific resources are employed with increasing frequency as learners advance, and in progressively diverse contexts to accomplish more varied interactional aims (Ishida 2009: 378-382; Kim 2009: 342). Furthermore, more advanced learners are more likely to draw on interaction-type-specific multifunctional items instead of relying on resources with clear L1 equivalents (Kim 2009: 342);

- more competent learners are more likely to be able to draw on specific, unambiguous turn designs for the actions they aim to accomplish, and thus clearly display their understanding of the prior turn, while lower-level learners tend to draw on simple, generic and multi-purpose designs ambiguating their responsive turns (Ikeda 2017: 175, 181; Youn 2013: 63, 73), partially even relying on supplementary material for resources (Ikeda 2017: 129);

- higher-level learners showcase a more advanced ability to indicate activity boundaries, and to successfully accomplish their interactional projects (Ikeda 2017: 121-123, 128).

While it is not listed as one of the generic problems recurring in interaction by Schegloff (2007), I will refer to the concept of *preference* on numerous occasions throughout this book. Thus, it requires at least a brief introduction. As I now undertake this, I will focus in particular on insights regarding preferences related to responsive actions.

2.3.4 Preference

As I have mentioned in section 2.3.2, although there are some adjacency pairs which invariably consist of two specific actions (e.g., greeting-greeting), many FPPs may be responded to with a number of alternative SPPs (Schegloff 2007: 16). Pomerantz (1984: 63) shows that whenever there are alternative ways for interactants to act, the

options are of different 'value' (Schegloff 2007: 58) – in the case of responsive actions, participants' choices indicate how they align with the initiating action and the underlying activity (ibid.). Commonly, there is one option that is more likely to bring a course of action currently underway to successful completion and/or which is more conducive to social solidarity (Pomerantz 1984: 63; see also Schegloff 2007: 59). This '+response' (Schegloff 2007: 59) will be considered the *preferred* option: "A next action that is oriented to as invited will be called a *preferred next action*; its alternative, a *dispreferred next action*." (Pomerantz 1984: 63, emphasis in the original).

Within the CA framework, preference is not understood as a psychological notion referring to the participants' personal wants and priorities, but rather an organisational concept. By producing a preferred or dispreferred SPP, a speaker does not (automatically) indicate a positive or negative stance toward the co-participant, or their personal desires (Schegloff 2007: 59-61), but rather awareness of structural patterns (see also Pomerantz & Heritage 2013: 210). Of course, initiating actions are not the only aspect of interaction presenting participants with a choice between several options of different 'value'. Preference may also be based in (the FPP's) turn design – how a polar question is designed, for instance, indicates whether a positive or negative answer is expectable (Schegloff 2007: 62). Similarly, type-specifying questions showcase which type of answer would constitute a type-conforming option (ibid.: 78).

Dispreferred status is commonly observable in the design features of dispreferred actions, which in comparison to preferred actions are structurally less 'easy' to accomplish (Pomerantz 1984: 64-65). Turns implementing preferred actions are usually short and straightforward (Schegloff 2007: 65). The production of a dispreferred action, on the other hand, requires far more interactional work: Speakers tend to design dispreferred actions with features "compromising the adjacency of the first and second pair parts, and, when they are in adjacent turns, compromising the contiguity of the two by having other elements intervene between them" (:64). As such, participants draw on cues such as prolonged silence, insert expansions, prefaces, pro-forma agreement, hesitation markers, hedges, accounts, excuses or disclaimers (ibid.: 64-67; Pomerantz 1984: 70-74), if they do not move to avoid the dispreferred action altogether (Schegloff 2007: 72; see also Pomerantz & Heritage 2013: 213-215). Of course, the mere presence of any single such feature does not automatically contextualise dispreference, or vice versa (Schegloff 2007: 63). However, when the design does not match the structural

pattern – if, for instance, a participant produces a straightforward, non-mitigated declination of an invitation – this occasions specific inferences (:67, fn. 5).

Research shows that learners' skills in orienting to norms of preference also develop over time. Higher-level learners can be observed to draw on a broad range of design features normatively associated with dispreference when producing disagreements, requests and other dispreferred actions (Al-Gahtani & Roever 2012: 59; Pekarek Doehler & Pochon-Berger 2011: 229; see also Ikeda 2017: 156; Youn 2013: 60, 77), whereas lower-level learners seldomly produce mitigating features, and even delaying devices are ambiguous as to whether they are contextualising dispreference, or indicating interactional trouble (Pekarek Doehler & Pochon-Berger 2011: 218, 222; see also Ikeda 2017: 164; Youn 2013: 82). Although Youn (2013) attributes this difference to lower-level learners' 'lack of sensitivity' to norms of preference (:68, 82), other authors seem to share the interpretation that regardless of level, learners are aware of the difference between preferred and dispreferred actions, and which design features are commonly associated with them (Al-Gahtani & Roever 2012: 59, 2013: 422). They note that it is a lack of means that prevents them from using appropriate designs (Al-Gahtani & Roever 2013: 423; Pekarek Doehler & Pochon-Berger 2011: 223, 229). This fits with Plough et al. (2018), who indicate that the development of L2 preference skills is an effect of the expansion and diversification of inventories of practices (:237).

Having now discussed most of the generic organisations underlying successful interaction, it is time to turn to the 'machinery' most relevant for my study: The organisation of repair.

3 Repair and Correction

The focus of my study is on L1 German EFL learners' repair skills. Hence, it is important to introduce this particular 'machinery' in detail. Most of this chapter will be dedicated to repair as it is conceptualised within the CA framework (including a discussion of the general features of the repair system in section 3.1.1, and an overview of practices L1 speakers have been shown to utilise for repair initiation and for attempts at resolving trouble, section 3.1.2). However, I will also briefly topicalise the notion of 'repair' within SLA research (section 3.2).

3.1 Repair in the CA Framework

Much of the insight into the organisation of repair, that is, into how participants in interaction may deal with trouble they encounter, has been gained through research on L1 talk. Most notably, original descriptions of the repair system were based on English data only, although the points made in Schegloff et al. (1977) have since been corroborated by research investigating such typologically diverse languages as Tai (Moerman 1977), German (Egbert 1996: 608; Egbert 2009: 167), and French (Maheux-Pelletier & Golato 2008: 692), as well by studies on non-standard varieties of English, such as Caribbean English Creoles (Sidnell 2008: 485, 492). This has allowed for the conclusion that the generic organisation of repair, which will be the starting point of this review, is indeed 'quasi-universal' (Couper-Kuhlen & Selting 2018: 116) in nature.

3.1.1 The Generic Organisation of Repair in L1 Data: The Repair Process, Repair Types and Repair Trajectories

Just like turn-taking and sequence organisation, the organisation of repair constitutes one of the "generic orders of organization in talk-in-interaction" (Schegloff 2007: xiii), and thus one of the central facets of IC as conceptualised in this book. It can essentially be understood as the "self-righting mechanism" (Schegloff et al. 1977: 381) participants in interaction can draw on whenever faced with some sort of interactional problem. In particular, it is trouble which is 'intrinsic' to interaction (Schegloff et al. 1977: 381; Schegloff 1992: 1341; Schegloff 1997a: 503; Schegloff 2000: 207; Schegloff et al. 2002: 7) that can be dealt with through repair practices – any issues with producing an utterance or with comprehending another's (often immediately) prior talk. This does not include those problems that are exogenous to the current interactional situation, such as difficulty in understanding a particular concept, or behaviour, being talked

about (ibid.). In other words, the organisation of repair encompasses the major "practices for dealing with problems or troubles in speaking, hearing and understanding" in talk-in-interaction (Schegloff 1997a: 503). They are fundamentally interactional, rather than cognitive, in nature (Schegloff et al. 2002: 7): By drawing on repair practices, participants display that there is some kind of trouble congruent with the aforementioned definition. An instance of repair may therefore be initiated regardless of whether or not the interactants have an actual cognitive issue with speaking or understanding (ibid.). Further evidence that interlocutors draw on the organisation of repair out of primarily interactional concerns is provided by instances in which an objective deviation from linguistic norms (i.e., a "hearable error", Schegloff et al. 1977: 363) occurs, but does not result in repair. Repair is instantiated only when the participants themselves identify a potential threat to mutual understanding (i.e., *intersubjectivity*), and thus to the continuation of ongoing talk (Schegloff 1992: 1338; see also Kitzinger 2013: 229). In CA's understanding of the term, then, repair may occur in connection with, but is neither an obligatory result of nor limited to, instances in which participants produce errors[13]. Nor, for that matter, does there need to be something otherwise 'wrong' or 'defective' (Schegloff 2013: 46) about the turn, as participants may draw upon the repair mechanism for the purpose of simply 'altering' an ongoing unit to improve its design (:47).

Extract 2[14] below, taken from the beginning of a phone-call between two L1 English speakers, includes some typical examples of repair (lines 02, 03-04, 06-07). Notably, none of them target 'errors'.

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[13] As is, the use of this term warrants some caution, as a review of the literature reveals that there are some differences in what is being considered an error in the CA framework. Consider, for instance, the contrasting analyses provided for the following data fragment (Extract I).

      Extract I (GTS:1:2:11; adapted from Schegloff et al. 1977: 363)
```
Ken:    Sure enough ten minutes later the bell r-
        the doorbell rang ...
```

While Schegloff et al. (1977: 363) use it as an example of cases of repair that do not follow an (obvious) error, Hall (2007: 514) considers this an instance of "an explicit correction of an error".

[14] This extract is part of the 'classic' CA data. It has been accessed on https://repositories.lib.utexas.edu/handle/2152/6477 (date of access: 2023, November 30)

Extract 2: parking place (TG, 0:13-0:22)

```
01   Bee:    you [sound   ]
02 → Ava:        [i wanted] to know if you got a a a
   →            whatchumaCALLit.=|= a: <<laughing> PARKing place>
                this (morning,)
03 → Bee:    (.) a PARKing place,
04 → Ava:    m_HM,
05           (.)
06 → Bee:    WHERE;
07 → Ava:    O:H,
08           just any <<laughing> PLACE;>=
09           =i was just KIdding you.
```

One clear instance of repair, and one which closely resembles cases that can be found in my data, occurs in line 02. Ava, in the middle of her turn, encounters an issue of speaking, and suspends the continuation of her TCU to deal with it. After multiple recyclings of the article she had just produced, interspersed with a self-directed question, she eventually manages to produce the next-due word that she had been struggling to find. Notably, at the time at which repair is initiated, there is no clear linguistic issue with the turn-so-far – that Ava has run into a problem only becomes recognisable through the repair initiation.

Similarly, Bee's talk in lines 03 and 06 does not result from erroneous talk. Rather, Bee first produces a hearing check, requesting confirmation whether she has heard, and understood, Ava correctly (line 03). Upon receiving that confirmation (line 04), she goes on to inquire after information that so far has not been explicated (line 06; see Schegloff et al. 1977: 369, fn. 15) to further pursue understanding of Ava's turn. This example alone, then, may be used as illustration for Schegloff et al.'s (1977: 363) observation that in many cases, repair targets a broad range of non-error trouble sources, or *repairables*.

Broadly, repairables may be classified according to the aforementioned distinction between troubles in speaking, hearing and understanding. However, while in many cases a specific lexical item, formulation or even utterance can be identified as troublesome with regard to one of these aspects, it has been shown that participants may also instantiate repair to deal with other interactional matters. For instance, participants may problematise the absence of a conditionally relevant response (e.g. Schegloff 1997a: 512), the production of a contextually inapposite action (Drew 1997: 83-93;

Drew 2013: 133), or the acceptability of an action in terms of, for instance, the speaker's authority to carry it out or the truthfulness of its contents (e.g. Svennevig 2008: 337). The trouble source being dealt with is one of a number of interactional contingencies that can inform participants' choice of specific repair practices – in that sense, the organisation of repair is context-sensitive in nature (Couper-Kuhlen & Selting 2018: 112). However, such lists of potential repairables should not suggest that trouble-sources can always be clearly identified and categorised: Egbert (2009: 66-69; see also Bauer 2020: 344) shows that the trouble source underlying any one instance of repair may also be ambiguous (i.e., there may be multiple possible issues) or even wholly unidentifiable (i.e., there is no reason available to the co-participant – or analyst, as it happens – for why a participant does repair at that specific point in the interaction). Regardless of what type of trouble source they are dealing with, and in which sequential and situational context this trouble source occurs, interactants will orient to and make use of the same basic, *context-free* organisation (Couper-Kuhlen & Selting 2018: 112; previous reviews of the repair organisation can be found in, e.g., Bauer 2020; Couper-Kuhlen & Selting 2018; Schegloff 1997a; Kitzinger 2013).

3.1.1.1 The Repair Process

Generally, the literature shows that an instance of repair (or 'repair segment', Schegloff et al. 1977: 365, Lerner & Kitzinger 2015; repair 'episode', Schegloff 1997a: 503) consists of two steps (i.e., segment parts, actions; ibid.), although these are not necessarily discrete components that are always accomplished as separate phases.

The first of these steps is the *initiation* of repair. Through "marking possible disjunction with the immediately preceding talk" (Schegloff 1997a: 503), participants can indicate that repair may be forthcoming, and therefore that there may be some issue of speaking, hearing or understanding that needs to be dealt with (Kitzinger 2013: 239). This disjunction from the ongoing talk can be accomplished in a variety of ways. Speakers may, for instance,

- cut off the interactional unit currently under production or use other "non-lexical speech perturbations" (Schegloff et al. 1977: 367; see also Kitzinger 2013: 239, Couper-Kuhlen & Selting 2018: 117);
- forego immediately producing a next action in favour of repeating the preceding utterance partly or in its entirety (e.g. Couper-Kuhlen & Selting 2018: 197-200; Kendrick 2015: 168-177);

- produce a candidate hearing or understanding of prior talk (ibid.).

Depending on the practices used, repair initiation may already clearly indicate the approximate or specific location, or even the identity, of the trouble source (e.g. Schegloff et al. 1977: 369, fn. 15; Couper-Kuhlen & Selting 2018: 113). Additionally, or alternatively, speakers may use the initiation of repair to offer a first categorisation of the type of trouble they are dealing with (e.g. Couper-Kuhlen & Selting 2018: 139-142). Thus, while repair initiation may be tacitly done so that it only becomes recognisable upon the repair operation (e.g., the production of a replacement) that there was repair at all (Kitzinger 2013: 239; Lerner & Kitzinger 2015: 63), it regularly does more than merely indicate "the possibility of a repair of an as of yet unspecified sort" (Kitzinger 2013: 329).

In Ava's first turn in the example provided above (here reproduced as Extract 2'), it is clearly recognisable where she initiates repair.

Extract 2': parking place (TG, 0:13-0:18)
```
02 → Ava:      [i wanted] to know if you got a a a
   →           whatchumaCALLit.=|= a: <<laughing> PARKing place>
               this (morning,)
```

Before she reaches a possible completion point of the TCU she is currently producing, Ava halts the emergent noun phrase by recycling a function word (the indefinite article 'a') multiple times, producing a self-directed question (whatchumaCALLit), and finally producing another, lengthened, repeat of the article. While the recycling of the function word may be treated as indication that what Ava is dealing with is a speaking problem, rather than an issue of hearing or understanding, clues as to the position or specific identify of the the trouble source are provided by the self-directed question only.

The second step of an instance of repair is, quite consistently, indicated to be the *repair itself*, although there appears to be some variation in how this constituent is conceptualised. Schegloff et al. (1977: 364) indicate that what follows the repair initiation is an attempt at remedying the issue at hand, a "candidate repair" (:376; Couper-Kuhlen & Selting 2018 use 'repair proper' and 'repair operation' as terminology for

essentially the same concept, p. 116[15]). Following this understanding, the repair operation in the sample extract would be Ava's articulation of a noun phrase head, that is, the *continuation* of the TCU. This resumption of the talk retrospectively indicates that what Ava was struggling with was the unavailability of some linguistic unit which she needed in order to continue (i.e., 'parking place'). However, it deserves mentioning that as regards the second component of the repair segment, Schegloff et al. (1977) also refer to the 'outcome' of repair (:365) – i.e., the successful or failed resolution of the trouble at hand (:364; see also Schegloff 1997a: 503). In case of Extract 2', the outcome is a positive one: Ava's trouble appears to be successfully resolved.

In accordance with other recent discussions of the organisation of repair (Bauer 2020: 340; Fox et al. 2013: 1; Kitzinger 2013: 230-232), this study will subscribe to Couper-Kuhlen & Selting's (2018: 113) take on the repair process: The two steps of repair are initiation and operation, and its result is a positive or negative outcome (see Figure 2). This outcome is often left implicit, with the resumption of progressivity as the only indication that the repair attempt has been concluded, although there may also be explicit ratification of the candidate solution (Bauer 2020: 389). Further, the initiation of repair encompasses all work being done by the speaker to indicate the potential presence of trouble as well as the (approximate) location and nature of the trouble source (Couper-Kuhlen & Selting 2018: 116-117; cf. Schegloff et al. 1977: 376).

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[15] At this point, it seems prudent to acknowledge the potential terminological confusion resulting from the polysemous usage of the term 'repair', and clarify how I refer to the different concepts involved. As far as I am aware, 'repair' is used in at least four senses in the literature. It may refer to

a) the generic order of organisation that is the subject of this chapter (repair as a self-righting mechanism; e.g. Couper-Kuhlen & Selting 2018: 113; Fox et al. 2013: 1); here, this concept will be referred to as the *repair organisation*, or *organisation of repair*.

b) (a specific instance of) the process of dealing with trouble of hearing, speaking or understanding, consisting of the aforementioned steps (e.g. Schegloff et al. 1977: 363ff.); the use of *repair* as a term will be reserved to the two-step process, and I will also draw on *instance of repair* to refer to specific occurrences of this process.

c) an attempt at resolving trouble, as a 'candidate' solution (e.g. Schegloff et al. 1977: 376-377; see also Couper-Kuhlen & Selting 2018: 116, Fox et al. 2013: 1); I will refer to this attempt as the *repair operation*.

d) the positive outcome of an attempt at dealing with trouble (e.g. Schegloff et al. 1977: 364); to refer to this positive outcome, this study will refer to the *resolution of trouble*.
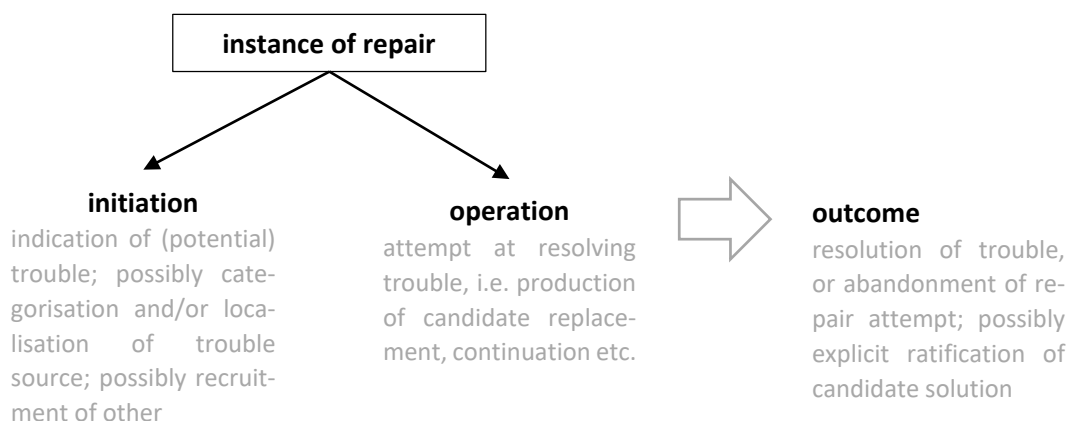
Figure 2. The repair process

3.1.1.2 Repair Types

Just as there are two components to the repair process, there are two parties that may contribute to it. One of the central points made by Schegloff et al. (1977) is that a meaningful distinction can be made between the speaker of the trouble-source turn (*self*) and their co-participant(s) (*other*). Both parties may carry out repair initiation and operation, hence the common distinction between *self-initiation* and *other-initiation* as well as *self-repair* and *other-repair* (:364). In consequence, accounts of the organisation of repair (e.g. Bauer 2020: 347-348; Couper-Kuhlen & Selting 2018: 113) posit that four main types of repair can be distinguished (see Figure 3): Self-initiated self-repair (SISR), self-initiated other-repair (SIOR), other-initiated self-repair (OISR) and other-initiated other-repair (OIOR).

		repair (operation)	
		self	other
initiation	self	SISR	SIOR
	other	OISR	OIOR

Figure 3. The main repair types

Extract 2' serves as an illustrative example of self-initiated self-repair, as Ava both initiates repair on her trouble-source turn, and produces the candidate solution. Self-initiated other-repair, other-initiated self-repair and other-initiated other-repair are exemplified with established data citations replicated in Extracts 3, 4 and 5 respectively.

Extract 3: SIOR (BC:Green:88; adapted from Schegloff et al. 1977: 364)

```
→   B:      He had dis uh Mistuh W- whatever k- I can't
→           think of his first name, Watts on, the one thet
→           wrote // that piece,                SELF-INITIATION
→   A:      Dan Watts.                           OTHER-REPAIR
```

Extract 4: OISR (GTS:5:3; adapted from Schegloff et al. 1977: 364)

```
    Ken:    Is Al here today?
    Dan:    Yeah.
            (2.0)
→   Roger:  He is? hh eh heh                     OTHER-INITIATION
→   Dan:    Well he was.                         SELF-REPAIR
```

Extract 5: OIOR (SF:II:7; adapted from Jefferson 1987: 87)

```
    Larry: They're going to drive ba:ck Wednesday.
                                                OTHER-INITIATION
→   Norm:  Tomorrow.                            + OTHER-REPAIR
    Larry: Tomorrow. Righ[t.
    Norm:               [M-hm,
    Larry: They're working half day.
```

Research has shown that in L1 talk, the main types of repair are not mere alternatives to each other, but rather are systematically related. Both the overall frequencies of occurrence of these types as well as the participants' conduct when engaged in them indicate that on the whole, self-initiated self-repair is preferred over all the other options (e.g. Bauer 2020: 369; Couper-Kuhlen & Selting 2018: 115). Schegloff et al. (1977) first reported on clear preferences for both self-initiation over other-initiation (:373-375) and self-repair over other-repair (:375-377). Not only do opportunities to self-initiate repair precede and outnumber opportunities to other-initiate repair, as I will show below, thus structurally promoting self-initiation (ibid.: 366-367; see also Schegloff 2000: 208), but participants have been shown to cooperate with each other to maximise the space available to the trouble-source turn speaker for initiating repair themselves (:373-374; see also Schegloff 2000: 225). If self-initiation happens, this usually leads to the resolution of trouble by self as well (Schegloff et al. 1977: 376). Furthermore, in the majority of cases in which a co-participant initiates repair, it is self who carries out the repair operation (ibid.). Other-repair, when it is done, commonly is designed as a dispreferred action, featuring delay, mitigation or hedging (ibid.: 378-379; see also Couper-Kuhlen & Selting 2018: 202). As the ability to repair another's

utterance often implies that intersubjectivity was not threatened by whichever trouble source is being worked on, instances of OIOR in particular are most often (but by no means exclusively) encountered in interaction between competent and not-yet-fully-competent users of a language (Schegloff et al.1977: 379-381).

3.1.1.3 Repair Trajectories and the Repair Initiation Opportunity Space

In most cases, when repair is initiated, the trouble is resolved successfully, and without significant delay (Schegloff et al. 1977: 363-364, fn. 8). The efficiency of the organisation underlying repair is largely attributable to the fact that repair on a specific trouble source cannot be feasibly initiated just anywhere, but with rare exceptions is limited to four positions relative to the repairable (:365-367; see also Schegloff 1992: 1326-1328; Schegloff 2000: 208). The first position within this repair (initiation) opportunity space, and the first opportunity to initiate repair, occurs in immediate vicinity to the trouble source, before the trouble-source turn even reaches a transition-relevance place (*same-turn* self-initiated repair (SIR), Fox et al. 2013: 2; *same-TCU* SIR, Kitzinger 2013: 232; e.g. Extract 2'). If repair is self-initiated after the next TRP, but prior to "the 'beat' that potentially follows the possible completion point of a turn" (Schegloff et al. 1977: 366, fn. 12), this is considered *transition space* SIR (:366; Fox et al. 2013: 2). Often, but not invariably, same-turn and transition space SIR are done to deal with problems of speaking, such as the unavailability of a next-due item, or a (perceived) lack of specificity of the talk produced so far. Multiple examples of transition space SIR are found in Extract 6 below.

> Extract 6: transition space SIR (MO, Family Dinner:I:9; adapted from Schegloff et al. 1977: 366)

```
       J:      He's stage manager.
               (2.0)
   →   J:      He's actually first assistant but- he's calling
   →           the show.
   →   J:      They take turns=
   →   J:      =he and the production manager take turns calling
   →           the show
```

Other-initiation of repair (OIR) may only happen after these two opportunities have already passed. If a co-participant encounters trouble with hearing or understanding (part of) a turn (Couper-Kuhlen & Selting 2018: 139), they usually initiate repair in

the immediately next turn (Kendrick 2015: 179). Such *next turn repair initiation* (Schegloff 2000: 208; e.g. Extract 4), however, recurrently does not happen instantaneously after the transition space as defined above has passed. As mentioned in the previous section, it tends to be delayed to provide the trouble-source turn speaker with an extended opportunity to recognise, and initiate repair on, problems in their turn (Schegloff et al. 1977: 373-374).

If the speaker of a trouble source, in the course of their co-participant's turn, becomes aware of an issue with their own prior contribution, they can use their next turn to self-initiate repair again. As this is, counting the trouble-source turn, the third turn in which a trouble-source can be targeted, this is referred to as *third-turn* repair initiation in the literature (Schegloff 1997b: 32). Extract 7 provides an example.

Extract 7: third turn SIR (SBL:1:1:12:11; adapted from Schegloff et al. 1977: 366)

```
      Hannah: And he's going to make his own paintings.
      Bea:    Mm hm,
→     Hannah: And- or I mean his own frames.
      Bea:    Yeah,
```

This, however, should not be conflated with what is called *third-position repair* (Schegloff 1992: 1303). In both cases, it is the trouble-source turn speaker that initiates repair. However, while in the first case the intermittent turn produced by other is unrelated to self's recognition of a trouble source, third-position repair refers to cases in which repair is initiated and carried out by self "after an interlocutor's response … has revealed trouble in understanding an earlier turn [produced by self, SR]" (ibid.: 1301). Consequently, third-position repair may, but need not, occur in the third turn of the repair initiation opportunity space (Schegloff 1997b: 31). An example of this repair type is provided in Extract 8.

Extract 8: third position SIR (GTS, I, 37; adapted from Schegloff 1992: 1303)

```
      Dan:    Well that's a little different from last week.
      Louise: heh heh heh Yeah. We were in hysterics last week.
→     Dan:    No, I mean Al.
      Louise: Oh. He...
```

In most cases, issues considered relevant to the maintenance of intersubjectivity will have been brought up through repair initiation after the third turn (Schegloff et al. 1977: 366). Since self-repair is preferred over other-repair, the repair operation most often also is done within the opportunity space I described (:376). However, Schegloff (1992: 1320-1321) notes that in rare cases, repair initiation may be done in or after the fourth turn of the opportunity space. This is an additional opportunity for OIR, but due to the infrequency of cases like these, Schegloff also implies that the next turn remains virtually the only relevant opportunity for other to initiate repair (ibid.). Following Bauer (2020: 351), the repair initiation opportunity space can be schematised as follows:

Turn 1:   `trouble source turn`   ← *OPPORTUNITY FOR SAME-TURN SIR*
                                         ← *OPPORTUNITY FOR TRANSITION-SPACE SIR*
Turn 2:   `response by other`   ← *OPPORTUNITY FOR OIR*

Turn 3:   `trouble-source turn speaker's next turn`
                                         ↑ *OPPORTUNITY FOR THIRD TURN AND*
                                         THIRD POSITION SIR
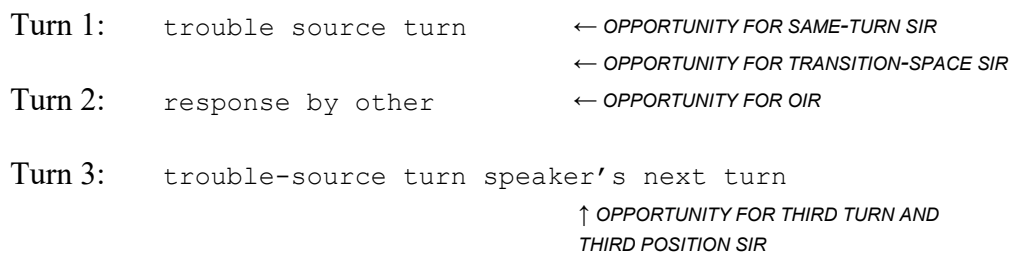
Figure 4. The repair initiation opportunity space

As noted above, it is most apt to consider these positions part of a "repair *initiation* opportunity space" (Schegloff et al. 1977: 375, emphasis mine): Where repair is initiated, in relation to the trouble source, carries clear sequential implications for (but does not invariably *determine*) how the instance of repair will play out. There is, for instance, a clear tendency for initiation in any of the places introduced above to be followed by self-repair. Thus, if self recognises an issue in their own utterance, it overwhelmingly is resolved within a single turn, often within the trouble-source turn itself (:369), while other-initiation of repair generally initiates a sequence of at least two turns (Schegloff et al. 1977: 369; see also Schegloff 2000: 208)[16]. Neither of these trajectories are without alternative, however. In rare instances, other does not leave it

---

[16] On occasion, such repair sequences are also referred to as 'retro-sequences' (e.g. Schegloff 2007). Instances of OISR – the prototype of retro-sequences – are "activated from their second position" (:217). That is, the repair initiation, while not made conditionally relevant by a (trouble) source in an earlier utterance, recognisably is responsive to it, and retrospectively identifies the trouble source as the origin of the repair sequence now in progress (ibid.: 217-219).

to self to attempt a resolution of the trouble at hand, but rather carries out OIOR. Furthermore, Schegloff's (1992: 1302) remark that "carrying through such repair may extend past the turn in which the repair is initiated" may stand in the context of other-initiation, but can be extended to self-initiation, given that SIOR is an attested option.

3.1.1.4 The Scope of Repair

As I have stressed at the beginning of section 3.1.1, repair is not contingent on there being an error, or an otherwise clearly observable problem (Schegloff et al. 1977: 363), and therefore it is often only by participants recognisably 'doing repair' that it becomes clear that there is some trouble to be dealt with (Kitzinger 2013: 232). Most characteristically, participants 'do repair' by creating some sort of deviation from an interactional element currently in progress, whether this be a single linguistic item, a syntactic unit, a turn, a sequence or even an extended activity (Schegloff 1997a: 503). The resulting *halt in progressivity* (see Couper-Kuhlen & Selting 2018: 113) is usually considered not only an identifying, but also a constitutive feature of repair: Following a trouble source, "[w]hatever the response–whether modification/correction or confirmation/repetition/reaffirmation–the ongoing trajectory of the interaction has been stopped to deal with the possible trouble, and that marks this interlude of talk-in-interaction as repair [sic!]" (Schegloff 2000: 209; see also, e.g., Couper-Kuhlen & Selting 2018: 113; Kitzinger 2013: 239). Similarly, it is the end of the halt in progressivity via the resumption of a previously suspended trajectory that marks the conclusion of an instance of repair (Kitzinger 2013: 238). This, however, means the scope of repair as it is conceptualised by CA is limited and does, for instance, not extend to

- any cases in which participants deal with trouble, but the ongoing course of action remains entirely undisturbed. Therefore, since dealing with trouble in talk, and thus self-righting, is by design not the interactional focus of embedded correction as described by Jefferson (1987: 95)[17], instances in which this prac-

---

[17] One illustrative example of embedded repair is provided in Extract II.

Extract II (GTS:II:60:ST; adapted from Jefferson 1987: 93)
```
Ken:   → Well-if you're gonna race, the police have said this to us.
Roger: → That makes it even better. The challenge of running from
          the cops!
Ken:   → The cops say if you wanna race, uh go out at four or five in
          the morning out on the freeway ...
```

tice is used would often not be considered repair (Schegloff 2000: 209; Schegloff et al. 2002: 7; cf., however, Couper-Kuhlen & Selting 2018: 202-203 and Jefferson's own comments that the practice may serve as a repair device, p. 97).

- cases in which participants use repair practices to deal with recognisable (linguistic) problems, but they do so in a setting in which dealing with such problems is a central interactional aim and therefore doing so does not lead to a halt in progressivity. This applies to settings in which "explaining and understanding are very likely to constitute the main line of activity occupying the talk, and problems of understanding and dealing with such problems are endogenous to the core activities of the setting" (Schegloff et al. 2002: 7), such as classroom-based language instruction. Here, correction of learner utterances by the teacher or another more competent user of the foreign language constitutes part of an instructional practice (Hall 2007: 515-516) and thus continues, rather than halts, the course of action participants in classroom interaction are engaged in.

- cases in which participants draw on resources reminiscent of those commonly used for repair initiation or operation, but do not use them to deal with trouble, but rather to implement entirely different actions. Kendrick (2015: 181-187), for instance, provides some examples of '*pseudo* OIR'[18] being used to project an upcoming dispreferred or non-serious utterance, or to produce some affective expression of astonishment.

Here, Roger replaces a lexical item previously produced by Ken ('police' into 'cops'), but this is done in 'passing'. I do agree that even so, it may be considered OIOR that just is not oriented to as such on this occasion; this overlaps with another issue I will shortly review, that of repair done as a vehicle for an additional action.

[18] To illustrate his concept of 'pseudo OIR', Kendrick (2015) provides the following example.

Extract III (RCE01 Cigarette 02:26; adapted from Kendrick 2015: 182)
```
1   Cha:   (It's a) nice place to work though.
2          (0.9)
3   Liz: → °Ehhh° what.=the concrete jungle,
4          (0.2)
5   Cha:   Aww::::::.=I think it's quite pretty.
6          It has ree:ds.
```

Liz, in line 3, produces something that is reminiscent of an understanding check (Couper-Kuhlen & Selting 2018: 175), but as is observable in Cha's response (line 5), it is not treated that way, but rather as a disaligning assessment (Kendrick 2015: 182).

The latter, in particular, necessitates some additional remarks to avoid the impression that all cases in which the use of repair practices coincides with an upcoming dispreferred response are to be excluded from the category of repair. While repair practices may not always be used to do repair *simpliciter* (Kendrick 2015: 181) – that is, to exclusively accomplish repair initiation or repair operation – research has shown that they can be used as a *vehicle* for other actions (Couper-Kuhlen & Selting 2018: 115; Kendrick 2015: 181). In such cases, while focusing exclusively on the repair work that is being done "would be either incomplete or inaccurate" (Kendrick 2015: 181), the analysis should pay heed that what is being done is repair *plus* an additional action (:182).

3.1.2 Repair Practices: Initiating Repair and Repair Operations

Now that I have reviewed the 'quasi-universal base' of the repair organisation, I will turn to its more context-sensitive and language-specific features, namely the practices participants use to initiate repair, and to operate on trouble sources (e.g. Couper-Kuhlen & Selting 2018: 116; Kitzinger 2013: 229-230). Drawing on previous CA and IL research on the accomplishment of repair, my review is meant to provide a baseline that I can later refer back to in the course of my own analyses. This being the case, my focus will be on the means that interactants have been shown to draw on for self-initiation and self-repair, with only a brief excursus to practices of other-initiation and other-repair.

3.1.2.1 Practices of Self-initiating Repair

When choosing particular practices for initiating repair (and operating on trouble sources), participants can be assumed to orient to a number of contingencies, including but most likely beyond whether repair is initiated and accomplished by self or other (see, e.g., Sidnell & Barnes 2013: 338-339, who point out that distribution of knowledge may play a major part in how participants operate on another's problematic descriptions). How interactants can deal with interactional issues also is determined by the language of interaction, and the resources offered by any given language (e.g. Couper-Kuhlen & Selting 2018: 126, fn. 15; Kitzinger 2013: 230). As regards self-initiation in particular, CA/IL research has shown that participants commonly have access to practices specific to the language used as medium of interaction, although there also are some strategies that are attested for a variety of languages, often with

only minor differences in, for instance, phonetic design (Couper-Kuhlen & Selting 2018: 138). Hesitation markers, for instance, are devices that may be universally available for self-initiating repair (ibid.: 117), yet how they are realised, particularly in terms of vowel quality, differs across languages (ibid.). In standard American and British English, a common orthographic representation for hesitation markers is 'uh(m)'. This reflects that they are typically realised with mid-to-low central vowel quality (e.g. Szczepek Reed 2011: 168; see also Clark & Fox Tree 2002: 75, fn 2; McDougall & Duckworth 2017: 6-7; Shriberg 2001: 164). In German, on the other hand, hesitation markers often are written as ('äh(m)', 'öh(m)'), indicating that they are more conventionally produced with an upper- to lower-mid front vowel, though low-front and central vowel quality have also been attested (e.g. Belz 2021: 128; de Leeuw 2007: 89).

Beyond hesitation markers, literature shows that to halt progressivity, participants may also cut off a unit-in-progress[19] and draw on means like sound lengthening (Schegloff et al. 1977: 367), "phrasal breaks[20], restarts, other hitches and peculiarities of articulation, silences/pauses" (Couper-Kuhlen & Selting 2018: 117). While repair initiation often is done with such "non-lexical speech perturbations" (Schegloff et al. 1977: 367), 'lexical devices' are available as well, including particles (Couper-Kuhlen & Selting 2018: 117) and metacommentary (e.g., 'reformulation markers', Bauer 2020: 380; 'self-directed questions', Couper-Kuhlen & Selting 2018: 118), as well as the recycling of lexical items (Couper-Kuhlen & Selting 2018: 118).

Any of these features may occur on their own, or as part of a cluster of features (ibid.: 117). However, they are not necessarily equivalent, freely interchangeable

---

[19] Schegloff (1979: 272) explicitly restricts the use of the term 'cut-off' to instances where a word is left unfinished because a next-due sound remains unproduced (or, less-than-fully-produced, as he also allows for 'within-sound' uses of the phenomenon). However, it appears that it is also possible to use 'cut-off' more broadly: Couper-Kuhlen & Selting (2018), for instance, recurrently draw on the term to describe instances in which words are completed, but the incipient TCU is not (e.g.: p. 127), thus employing it beyond the 'within-word' context described by Schegloff (1979). In this study, I will adopt Schegloff's more limited take.

[20] There is, to my knowledge, not much literature on what constitutes a 'phrasal break'. While not explicitly in the context of repair, Goodwin (1979: 106) does make a note that "[a] speaker can request the gaze of a recipient by producing a phrasal break, such as a restart or a pause" (see also Goodwin 1980). If this is to be taken as point of departure, however, it appears that 'phrasal break' may be closer to a synonym for 'non-lexical speech perturbations' rather than a further type of such perturbation.

means: Which resources are employed has been shown to differ, for instance, depending on whether repair is initiated on a repairable that has already been produced either partially or in full (post-positioned repair initiation) or targets an incipient, but not-yet-realised trouble source (Schegloff 1979: 273; see also Couper-Kuhlen & Selting 2018: 117). Hesitation markers and unfilled pauses commonly serve to delay an unrealised repairable, without canceling the current syntactic projection (ibid.). Cut-offs generally are used for post-positioned repair initiation and thus are often followed by some sort of change to the TCU-so-far (ibid.). Particles also are commonly employed to accomplish post-positioned repair initiation (Couper-Kuhlen & Selting 2018: 126), and thus help indicate that a prior item, or the entire turn-so-far, is insufficient in some way and may threaten mutual understanding. The resources used for self-initiation may thus help with at least roughly locating the trouble source – however, the specific identity of the repairable frequently is not revealed prior to the repair operation.

Extract 9 showcases several of the verbal means that participants may draw on for pre-positioned self-initiation of repair.

Extract 9: Pre-positioned self-initiation (NB:X:1:17; adapted from Schegloff et al. 1977: 363)

```
→   Olive:    Yihknow Mary uh:::: (0.3) oh:: what was it.
              Uh:: Tho:mpson.
```

When Olive encounters trouble in producing the full name of someone she is talking about, she initiates repair. First, she produces a (considerably lengthened) hesitation marker (`uh::::`), then (after an unfilled pause and another lengthened item) there is a self-directed question (`what was it`), followed by another hesitation marker.

One example of post-positioned self-initiation of repair is included in Extract 10.

Extract 10: Post-positioned self-initiation (NJ:4; adapted from ibid.: 364)

```
    N:    She was givin me a:ll the people that
→         were go:ne this yea:r I mean this
→         quarter y' // know
    J:    Yeah
```

After producing an adverbial of time, N quickly follows up on it with an editing expression (`I mean`; see Couper-Kuhlen & Selting 2018: 126), before producing a replacement adverbial.

In addition to the verbal features I have reviewed, participants may also employ bodily-visual cues to indicate they are dealing with some sort of problem in their own talk. Some phenomena, such as the 'thinking face' (Goodwin & Goodwin 1986: 57; for a closer description of the relevant set of cues involved, see Couper-Kuhlen & Selting 2018: 122), have been described to occur in particular contexts, in this case (word) searches. There is evidence that cues like gaze withdrawals and the suspension of an ongoing gesture or bodily movement may accompany, or even precede, verbal repair initiation (Bauer 2020: 376; see also Couper-Kuhlen & Selting 2018: 123).

3.1.2.2 Practices of Other-initiating Repair

While accounts of SIR often involve providing a list of cues that participants may draw on, CA literature on OIR provides a system of practices. These are commonly understood to differ in terms of their 'strength', that is, in their ability to locate the trouble-source in a prior turn (Schegloff et al. 1977: 369, fn. 15), the extent of understanding of the prior turn the repair initiator indexes (Schegloff 1997a: 506-507), and how well the initiation serves to indicate what type of trouble the repair initiator is dealing with (Dingemanse et al. 2014: 34).

Considered 'weakest' from that perspective[21] would be the so-called 'open-class repair initiators' (Drew 1997) such as 'huh' and 'what', as they merely display that there is something in the prior turn that is problematic, but not where the trouble-source is located, nor what exactly is problematic about it (:71; see also Schegloff 1997a: 507). They can therefore potentially locate the entire TCU, turn, action or just an aspect of any of the former as the repairable (Drew 1997: 93-95; Robinson & Kevoe-Feldman

---

[21] Schegloff (1997a: 507) points out that the order may well be flipped if a different perspective is taken, for instance if other-initiation practices are ordered according to the preconditions that need to be fulfilled for them to be usable. In that sense, he observes that the use of open-class repair initiators could actually be considered the 'strongest' practice, given that "it is so powerful that its user needs nothing more to deploy it than to take it that something was said to her or him; it does not even require an actual trouble-source, only a putative one" (ibid.).

2010: 233)[22]. 'Stronger' other-initiation can be done by using category-specific question words, partial or full repeats of the trouble-source turn, or a combination thereof (Schegloff et al. 1977: 367-368). Candidate understandings constitute the 'strongest' means (ibid.). Just as there are some strategies for SIR which are attested for a variety of languages (see previous section), it has previously been noted that there are striking similarities between different languages in terms of how other-initiation is commonly accomplished (Dingemanse et al. 2014: 29).

In my data, it is the medium-strength practices that occur, and which I will therefore illustrate (see Extract 11).

Extract 11: Other-initiation (NB:68:1:3; adapted from Schegloff et al. 1977: 368)

```
      A:    What're you guys doin at the beach.
      B:    Nothin
→     A:    Nothe:::://n
      B:    No::,
      A:    Oh, good // heavens
```

Here, A repeats B's prior TCU, requesting confirmation which B subsequently provides.

3.1.2.3 Operating on Trouble Sources: Doing Self- and Other-Repair

Research on self-repair operations commonly refers back to Schegloff's (2013) list of operations for same-turn self-initiated repair (e.g. Couper-Kuhlen & Selting 2018: 128). Repair 'operations' in Schegloff's understanding appear to refer to meta-strategies available to participants to deal with trouble (in their own, current turn) that may be formatted in a variety of ways, and are to be distinguished from "the *components* of the repair segments through which the operations are prosecuted, [and] the *techniques* employed in accomplishing those operations" (Schegloff 2013: 41, emphasis in the original). His classification provides helpful insight into the different options

---

[22] According to Seo & Koshik (2010: 2220), certain gestures (e.g., head-pokes and movement of the upper body in direction of the trouble-source turn speaker, sharp head tilts/head turns) may function as an alternative to verbal open-class repair initiators, at least in tutor-tutee ESL interaction.

available to current speakers to attempt to resolve trouble, and thus shall be summarised briefly here. I will also use the opportunity to problematise some of the operations he proposes.

Among the most commonly used operations for self-repair are *replacing* and *recycling* (Fox 2013: 1). The former refers to the substitution of a trouble-source with another, not necessarily grammatically equivalent item or unit (Schegloff 2013: 43-45; see Extract 10), while recycling is defined as the repeat of something that was just said (Schegloff 2013: 59-60). This repeat may be identical or near-identical: Design changes are possible, for instance in terms of prosodic features. However, these changes cannot be (recognisably) what motivated the participant to repeat the stretch of talk in question, since in that case, the speaker would be doing replacement rather than recycling (Schegloff 2013: 61)[23]. Even beyond the problems in distinguishing between near-repeats and replacements, Schegloff notes that cases of recycling as a repair operation may be hard to find. He concedes that while repeating stretches of talk is a ubiquitous phenomenon in the context of repair (just like in interaction in general), not all instances of (near-) repeating are done to resolve an ongoing issue of speaking (ibid.: 59-60). Rather, repeats (or, recycling) of parts of the trouble-source turn can also be used to a) frame the actual candidate repair, in which case "the recycled element(s) *figure* in the repair segment but *not* as the repair *itself*" (Schegloff 2013: 59, emphasis in the original; see also Egbert 2009: 62-63) and to b) initiate repair. In this study, I will subscribe to Schegloff (2013: 59-60) by considering only those cases in which the recycling itself resolves trouble (e.g., in which recycling follows overlap and thus can be understood to deal with possible hearing trouble, see Extract 12) to be instances of recycling as a repair operation.

Extract 12: recycling (KC-4, 07; adapted from Schegloff 2013: 59)
```
07   Rbn:   Takes a[bout a week to grow a culture,]
08 → Kay:          [ I don think they grow a     ] I don
   →              think they -grow a culture to do a biopsy.
```

Inserting also occurs frequently (Schegloff 2013: 45). It refers to those cases in which one or more elements are added into a turn or TCU currently in progress, elements

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[23] For further disambiguation of types of repeat, depending on which design features are changed, and the distinction between repeating (i.e., recycling) and similar operations, see Selting (1987: 132-133).

which are clearly distinct from what would have been the projectably next item in the syntactic structure under production (ibid.; see also Wilkinson & Weatherall 2011: 66-67). Commonly, this operation serves to specify, intensify, describe, add to or adjust some part of the unit-so-far (Wilkinson & Weatherall 2011: 83-87). There is little restriction on the types of element that can be inserted, though usually what is being added are lexical and phrasal units. This allows inserting to be distinguished from *parenthesising*, which entails the addition of a clausal unit (Schegloff 2013: 51) to the ongoing TCU. Sample cases for inserting and parenthesising are provided in Extracts 13 and 14 respectively.

Extract 13: inserting (Hyla and Nancy; adapted from Wilkinson & Weatherall 2011: 66)

```
 → Hyl:   this girl's fixed up on a da- a blind da:te.
```

Extract 14: parenthesising (Auto Discussion, 7; adapted from Schegloff 2013: 52)

```
04 → Mik:   So, boy when Keeg'n come in he- yihknow how he's
05 →        gotta temper anyway, he js::: °wa:::::h sc[reamed
06          iz damn e:ngine yihknow,                    [
07   Cur:                                               [Mm
```

Just as participants can insert elements, they also have the option of *deleting* something from the talk they have produced so far (fully or in part; Schegloff 2013: 47), although this operation is used rather infrequently. Extract 15 provides an example.

Extract 15: deleting (Auto Discussion, 25; adapted from Schegloff 2013: 48)

```
06 → Cur:   That's still That's too fas[t.
07   Gar:                              [That['s too fast.
08   Mik:                                  [Ain' no way I'd
09          get inna snowmobile going that fast.
```

The operations discussed so far have in common that they effect fairly local changes, leaving most of the unit-so-far unaffected: Some element is reproduced, exchanged for another, added or omitted, but in terms of its overall design, the TCU-in-progress remains unchanged. *Reformatting* constitutes a different type of phenomenon altogether,

entailing a change to the overall projectable trajectory of the TCU, often but not exclusively grammatical in nature (Schegloff 2013: 62). *Reordering* operates within an ongoing TCU, but still works on a syntactic level, describing those cases in which participants rearrange the elements of their ongoing turn (Schegloff 2013: 64). Hence, while in Extract 16, lines 05-06, Ava can be seen to abandon her initial syntactic projection of a specifying wh-interrogative (Thompson et al. 2015: 20) in favour of producing a polar interrogative (see Schegloff 2013: 63), Extract 17 only entails a change to the order of material already produced, `get` and `always` being swapped (ibid.: 65).

Extract 16: reformatting (TG, 04; adapted from Schegloff 2013: 62-63)

```
04   Bee:    ˙hhh[h m- ]
05 → Ava:        [W-whe]n's yer uh weh- you have one day y'only
06 →         have one course uh?
```

Extract 17: reordering (Sidnell 2006; quoted and adapted from ibid.: 65)

```
04 → Que:    But do you get always- d'you always get
05           called on?
```

Among his list of repair operations, Schegloff (2013) includes two strategies that do not result in the completion of the TCU initially projected: *Aborting* and *sequence jumping*. If a participant aborts a TCU prior to a point of possible completion, they abandon it in favour of a new TCU further pursuing the ongoing course of action (Schegloff 2013: 52-53). Sequence jumping, on the other hand, refers to cases in which not only the current TCU, but also the sequence-in-progress it is part of, is abandoned for an entirely new course of action (ibid.: 56). In Extract 18, it is quite recognisable that Mark struggles with providing a sufficiently identifying description of the person whose name he just mentioned, consequently leaving his first two attempts incomplete only to launch subsequent ones (lines 09-11). In other words, he can be seen to do aborting in the interest of resolving an ongoing issue.

Extract 18: aborting (SN-4, 08; adapted from Schegloff 2013: 53)

```
01   Shr:    Who w's the girl that was outside
02           (his door¿)/(the store¿)
03           (0.8)
04   Mrk:    Debbie.
05           (0.8)
```

```
06   Shr:      Who's Debbie.
07   Mrk:      °(Katz.)
08             (0.7)
09   Mrk:  →a₁ She's jus' that girl thet: uh:, (0.2)
10         →a₂ ˙hh I met her through uh:m::, (1.0)
11             I met 'er in Westwood.=I (caught that-) (·)
12             'Member I wenttuh see the premie:r of (0.3)
13             Lost Horizon¿ [(          )
14   Shr:                    [I DID'N KNOW YOU did,=
```

Sequence jumping, however, is explicitly characterised as a practice of completely abandoning a course of action, and hence any trouble with that course of action. In that sense, it is doubtful whether this practice can be considered a repair operation in the narrow sense. Schegloff (2013) notes that the repairable would be "the sequence to which the turn is contributing" (:56), but rather than to solve problems of speaking, hearing or understanding, participants in Schegloff's examples appear to use the practice to deal with moments of disalignment and threatened social solidarity (:56-59).

The last of the self-initiated self-repair operations described by Schegloff (2013: 49-51) is *searching*. Just like with sequence-jumping, I think it problematic to consider this practice a repair operation. Rather, I propose that 'doing searching' can more fittingly be described as a distinct practice for self-initiating repair, given that when used, it clearly indicates that the current speaker is dealing with trouble of speaking, but does not yet have a solution for that problem. In this study, therefore, I will be following Couper-Kuhlen & Selting (2018), who indicate a similar understanding by clearly distinguishing word searches from the self- or other-repair operation they make relevant next (:118-119, 122; see also Kurhila 2006: 91). To refer to the attempt at resolving the unavailability of a next-due item or unit which necessitates searching, I draw on a term used by Kendrick (2015: 175), namely 'continuation'. Although he uses it in a different context, namely to refer to possible types of candidate understanding, he contrasts it with replacement and insertion, two designs which clearly resemble Schegloff's (2013) homonymous repair operations. In Extract 2' discussed above, which constitutes a straightforward instance of doing searching, Ava can be seen to resolve the issue by producing such a continuation (PARKing place).

This concludes my review of the notion of repair as conceptualised and researched in the CA and IL literature. However, it certainly bears mention that 'repair' is a term

which is likely already familiar to L2 teaching and testing practitioners: Within SLA literature and research on applied linguistics, repair also occurs as an important phenomenon, although its conceptualised quite differently there. In the remainder of this section, I will briefly summarise the usage of 'repair' in SLA research, and point out where the two approaches to the term overlap and, more importantly, diverge.

3.2 Repair Phenomena in SLA Research: Correction, Communication Strategies and Dysfluency

Psycholinguistic, that is cognitive, approaches to the concept of 'repair' commonly focus on instances in which a language user revises their own utterances so as to ensure correctness in terms of both language use and content (Levelt 1993: 458-459; see also Kormos 1999: 315, 317; Sato & Takatsuka 2016: 2; van Hest 1996: 35) – that is, they focus on *self*-repair (often used synonymously with 'self-correction'). Rather than as an interactional phenomenon showing co-participants' attempts to collaboratively construct and maintain mutual understanding, this approach understands repair to be evidence for, and a potential 'window' into, the individual cognitive processes of speech production (e.g. Bauer 2020: 353; Kormos 1999: 303, 315; Kormos 2006: 53; van Hest 1996: 1). In particular, the phenomenon is connected to (self-) monitoring, a process that Levelt (1993: 8) conceives of as automatically and unconsciously accompanying the entire speech production procedure. This process allows speakers to ascertain that what is being produced a) matches with what was planned, b) provides the listener with sufficient information, and c) complies with linguistic and social norms (ibid.: 460-463; see also Bauer 2020: 353-354; van Hest 1996: 2). If speakers note that this is not the case, they are able to attempt a solution. Hence, if they detect some "sufficiently alarming" (Levelt 1993: 478) trouble, they interrupt (or, 'cut off') their ongoing talk through pausing and 'editing expressions' (:459; e.g., hesitation markers, p. 484) to signal the problem (:482), and subsequently initiate the repair itself (:460).

While at first glance, there appears to be some terminological overlap, CA and SLA conceptualisations of the repair process clearly differ. Understanding repair as a cognitive phenomenon provides for the distinction between overt and covert repair Levelt proposes – while the former takes place "after the erroneous or inappropriate utterance has been pronounced" (van Hest 1996: 3; see also Levelt 1993: 479), and often is accomplished by restarting an utterance, or replacing part of the utterance-so-far (Levelt 1993: 490), the concept of 'covert repair' is less clearly defined. On the one hand,

covert repairs are noted to recurrently be indexed through hesitation markers and other such 'editing expressions' (ibid.: 484), which indicates that just like overt repair, they are carried out during utterance articulation. In this sense, 'covert repair' is used to refer to those cases of repair in which it is unclear what the reparandum is (:478). Elsewhere, 'covert' indicates that repair is carried out entirely internally, prior to any articulation (Kormos 1999: 315; van Hest 1996: 3, 36). Of the two types of repair distinguished by Levelt (1993), it is overt repair that is further classified, based on the type of trouble that is being dealt with (Kormos 1999: 316; see also van Hest 1996: 6). Levelt (1993) further proposes a clear systematicity regarding both the placement of the trouble-indicating interruption (Main Interruption Rule; p. 480) and the design of a replacement utterance (Well-Formedness Rule; p. 486).

Just as in the CA and IL frameworks, (self-) repair in the SLA understanding proves to be a fairly popular phenomenon for research. However, where CA research has established that instances of repair are recognisable through a halt in progressivity, van Hest (1996) notes that when it comes to SLA, "[m]ost studies fail to provide clear criteria for identification, leaving it up to the reader's imagination and creativity to find out what is actually understood by the term 'self-repair'" (:35). Indeed, even Levelt's (1993) comments on the topic tend towards some conceptual vagueness regarding self-repair in general, and its different sub-types. This conceptual problem is not helped by the fact that the term 'repair' is also drawn on to denote an entirely different kind of phenomenon, namely a type of practice that is used in classroom-based language instruction to make learners aware of, and support them in dealing with, linguistic problems in their prior talk (Hall 2007: 515; Theodórsdóttir 2018: 30). This feedback practice generally is carried out by a more proficient user of the language being taught (Hall 2007: 515), and provides insight into the type of error and how it may be resolved (Theodórsdóttir 2018: 30). Once again, 'correction' is used as a synonym for the phenomenon, although in this case it is carried out on another (L2) speaker's utterance and therefore should be considered *other*-correction. As an institutional practice, its occurrence is limited to specific contexts and participant roles, providing a clear contrast to repair in the CA understanding. There, issues of speaking, hearing and understanding necessitating a 'self-righting mechanism' (Schegloff et al. 1977: 381) are considered a ubiquitous threat to intersubjectivity, meaning that repair is neither restricted to a particular type of interaction, nor to a specific group of participants. In consequence, it is not at all uncommon that in classroom interaction, both conversation

analysts and SLA researchers will find instances of what they would consider repair. However, since they "do distinct kinds of work" (Macbeth 2004: 723), the cases identified will not necessarily overlap.

On the one hand, the phenomenon 'repair', regardless of its exact conceptualisation, frequently is investigated in its own right in SLA research. Even beyond that, references to both terms and and phenomena related to the repair organisation (as described by CA/IL research) can be found in SLA literature – such is the case where communication strategies or features indicative of learners' speaking competence are discussed.

Communication strategies (or, 'conversational strategies', Barraja-Rohan 1997: 74; 'compensatory strategies', Poulisse 1997: 50) traditionally are understood as "problem-solving activit[ies]" (Brouwer 2003: 536). Commonly, they are defined as strategies that allow L2 learners to deal with problems they encounter in the course of speech production in the L2, in particular with problems rooted in linguistic shortcomings (ibid.; Firth & Wagner 1997: 288; Kasper & Kellerman 1997: 1). Early research on communication strategies investigated both techniques for dealing with problems preventing language production and means of resolving "decoding problems in foreign language" (Wagner & Firth 1997: 323). Over time, however, the conceptualisation of communication strategies has narrowed considerably, with the focus now being on strategies resolving production issues (Kasper & Kellerman 1997: 2), and lexical issues in particular (Wagner & Firth 1997: 323; see also Brouwer 2003: 536; Kasper & Kellerman 1997: 8). With the range of recurrently mentioned communication strategies including such phenomena as code-switching, paraphrasing, substitution, gestures and other bodily-visual conduct, requests for assistance and the abandonment of utterances-in-progress (Kasper & Kellerman 1997: 4; Saville-Troike & Barto 2017: 178; Tarone 1981: 286), there is some overlap, but not full congruence, with self-repair as described by Levelt (1993).

From a CA-SLA perspective, the (traditional) conceptualisation of communication strategies is problematic. It perpetuates a deficiency view of language learning (Firth & Wagner 1997: 288), as communication strategies are thought to result from "input which is too far ahead of the learner's resources" (Kasper & Kellerman 1997: 5), thus indicating that learner's current skill gaps. Additionally, communication strategies are traditionally understood as individual mental strategies, allowing an entirely self-con-

tained resolution of trouble (ibid.: 2). Thus, any (speaking) issue a learner might encounter is firmly framed as solely their responsibility to deal with, instead of being treated as something that may impact, and can be resolved in, interaction.

In other publications, (self-) repair/correction is listed among a variety of dysfluency (or, 'disfluency') markers (e.g. Bosker et al. 2013: 162; Lambert & Kormos 2014: 610; Lennon 1990: 390; Wong & Waring 2010: 218). In that context, repair serves as one possible indicator for limited fluency, which alongside complexity and accuracy is often considered one of the key features indexing L2 learners' speaking competence (Goh & Burns 2012: 46; Lambert & Kormos 2014: 607; see also Chapter 1). This is reflected in its frequent inclusion – explicit or implicit – in assessing scales for speaking tests (e.g. "IELTS scoring in detail", 2023, website; "TOEFL iBT Scores", 2023, website). Occasionally, it is argued that (self-) repairs should be treated as an indicator for accuracy instead, given that "they denote both attention to form and an attempt at being accurate" (Gilabert 2007: 216). Both of these takes, of course, further reflect the fairly one-dimensional conceptualisation of repair prevalent in SLA research, reducing the phenomenon to a means of dealing with learner-produced speaking issues, errors in particular.

This section provided some additional insight into why I have chosen to focus on repair skills in my study, out of all the different aspects of interactional competence I could have focused on. The notion of repair (and 'correction' in particular) is likely to be familiar to L2 teaching practitioners, something they already draw on, consciously or not, in their daily work – by correcting their students, or by drawing on the concept of self-repair to assess their learners' speaking skills and subsequently identify further teaching goals (see Wong & Waring 2010: 212). Yet, where the term occurs within central documents informing language teaching (reference frameworks, teaching standards, core curricula), teachers are very likely to connect it to the SLA conceptualisation. In convincing teachers and raters of the relevance of teaching and assessing IC, repair may thus well serve as a linchpin. While it is an interactional skill that requires significant awareness-raising as to the differences in conceptualisation between SLA and CA, so as to avoid misunderstandings as to what needs to be taught and tested, introducing practitioners to this interactional skill as an assessable (and teachable) may be facilitated by the fact that teachers will be able to draw on some prior knowledge. Furthermore, a contrastive comparison of the two approaches may pave

the way for a paradigm shift from a cognitive to a more interactional understanding of 'speaking', and thus for a more comprehensive assessment (and teaching) of L2 speaking competence.

My study is set to contribute to this long-term objective of broadening language teaching and assessment by testing out an approach to the operationalisation of core interactional skills, and the identification of candidate criterial features for their assessment. It is my aim to advertise a more emic approach to the assessment of speaking competence, in which learners are not evaluated on the basis of the mere occurrence or absence of specific phenomena, but rather with consideration of the implications such (non-)occurrence has for the learners' ability to accomplish the ultimate goal of learning a language, namely successful participation in interaction. Generally treating particular phenomena, such as searching for a word, as an indication for a lack of competence, and thus as per se problematic, prevents the insight that searches are a resource for interactional ends. The development of learners' speaking competence may be reflected not in whether or not this resource is used, but in the precise manner in which it is utilised – for which specific purposes, in which particular contexts, with which interactional consequences. To identify such developmental patterns, I conducted comparative analyses of EFL learners' repair work, contrasting a) groups of learners at different levels of L2 development and b) learners of one group. In Chapter 4, I will provide detailed insight into the data and method I drew on for my study.

4 Data and Methods

In this chapter, I will introduce the data that I analysed, and discuss methodological decisions I made in pursuing my research project.

4.1 The Raw Data: Participants, Tasks and Contexts of Recording

To answer my research questions, I conducted qualitative analyses, following CA/IL methodology as well as drawing on basic premises of CA-SLA research. As I have noted in Chapter 2, all these research programmes require the use of interactional data. While the COVID-19 pandemic prevented me from collecting further data, for my study I was able to draw on roughly 8.5 hours of video-recorded interaction between, or including, L1 German EFL learners, of which I closely investigated about 4.5 hours. I compiled this data from a range of existing corpora and collections of relevant recordings, to enable cross-sectional analyses of the repair work conducted by learners at different levels of L2 development. Based on the amount of EFL instruction the learners had received when they were filmed, I was able to divide them into three groups: Beginner, intermediary and advanced-level learners. In my analyses, I only focused on those parts of the available data in which the participants engage in learner-learner interaction: Since IC (and, consequently, repair skills) is conceptualised to be interactionally accomplished by co-participants at talk, I aimed to ensure that my observations genuinely concern L2 learners' repair work.

For *beginner-level data*, I drew on a collection of recordings of EFL classroom interaction at German schools, made for teacher training purposes and provided by North Rhine-Westphalia's Institute for School Education (henceforth, the *QUA-LiS NRW corpus*)[24]. The videos, which are available on the institute's website (QUA-LiS: "Unterrichtsvideos", 2023, website), were recorded during regular class time and depict several groups of learners from grades 2 to 5 (roughly 7-11 years of age). Of the roughly 4.25 hours of data available, I only reviewed the recordings made at primary schools (featuring learners of grades 2-4, roughly 7-10 years of age; approximately 3 hours of data[25]). That these learners were, at the point of the recording, in their first or

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[24] I am very grateful to the institute's staff for their willingness to let me use their data for my research.

[25] The size of this data set clearly exceeds that of the data available for the intermediary- and advanced level learners both. A central reason for this is that the data was not edited in a way that allowed specific focus on learner-learner interaction (let alone on interaction produced by specific learners; for more discussion of this matter, see section 4.2.2). Peer interaction occurs intermittently in the QUA-LiS NRW

second year of EFL learning warranted their classification as beginner-level (or, novice) L2 speakers of English. It must be noted that, as opposed to the other collections I drew from, the recordings included in the QUA-LiS NRW corpus have not been done by researchers familiar with CA/IL methodology. The data still remains usable for my project, even if, for one, there is no information available regarding the recording set-up, and it remains unclear how many cameras and microphones were in use. On occasion, the editing prevents access to some of the relevant details of the learners' conduct, which means that parts of the data could not be used for analysis (see section 4.2.2 for more detail). Furthermore, the available recordings do not cover the full lessons. Still, a number of videos are available for each session recorded, providing insight into a variety of classroom activities. The learner-learner interaction within this data largely comprises fairly scripted activities, such as games and role-playing tasks. Interestingly, the teachers quite frequently go on record saying that English is the preferred medium of interaction within the classroom. Failing that, the supplementary material provides evidence to that effect.

For *advanced-level learner data*, I used recordings of university students of English, who had received EFL instruction throughout at least their studies at secondary school, and had spent an extended period of time in an English-speaking country[26]. Here, I drew upon two sources of data:

- The *Corpus of elicited Learner English, Potsdam (CeLE-P)*, consisting of 5 video-recordings of elicited face-to-face discussions which amount to approximately 2.5 hours of data in total[27]. The recordings originally were compiled for a research project on learner varieties of English. L1 and L2 speakers of English were invited to contribute data for the research project by participating in three-party interactional encounters (L1-L1, L1-L2 or L2-L2). In my study, I drew on one of the L2-L2 encounters (ELF_02; approx. 0.5 hours), and reviewed the talk produced by the sole L1 German participant (Lisbeth). The participants were recorded at the researcher's private residence, where they met

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corpus – therefore, while for the other learner groups, I am able to provide the precise amounts of learner-learner data available to me, my analysis of the beginner-level data had to depart from a review of the entire collection.

[26] Furthermore, to be able to study English at their university, students are required to pass an entrance exam or provide alternative proof that they have reached at least high B2 / low C1 level according to the CEFR (Lämsä-Schmidt, 2023, website).

[27] My sincere gratitude to Marit Aldrup for providing me with access to her data.

for the first time. During the recording itself, no one else was present in the room. Just prior to being recorded, the participants were given a topic to discuss, along with a discussion card containing several question prompts.

- One additional recording which I collected specifically for this study (*SR-DE*, approx. 45 minutes), to balance and extend the CeLE-P data so as to ensure that my results would not merely reflect a single learner's idiosyncratic repair conduct. The participants were recruited from my seminars. In my invitation message, I asked for L1 German speakers of English who would be willing to participate in, and record, interaction in English[28] to provide insight into how they accomplish orderly L2 interaction. The participants were previously unacquainted, although to set up a recording date for their dyadic discussion, they did contact each other before the recorded meeting. To give the participants an opportunity to ask questions, I briefly joined the beginning of the recording session (which took place via the videoconferencing software 'zoom'). Once there were no further issues to clarify, I provided them with two discussion topics to choose from (drawing on the CeLE-P discussion cards) and left the room. The recording was initiated by the participants themselves, and sent to me after they had concluded their session. In my analysis, I focused on the repair conduct of one of the participants, Mira, as she reported experience with the L2 very similar to that of CeLE-P's Lisbeth.

For *intermediary-level data*, I drew on the *Lerner-BS corpus*. It consists of approximately one hour of video-recorded interaction involving EFL learners at a German secondary school, elicited in the context of a research project collecting material for teacher training and research into IC[29]. The collection of the data was connected to, and framed as (an optional) part of, the learners' preparations for an upcoming oral examination of their L2 speaking skills (Barth-Weingarten 2021: 212). The participating learners – 7th- and 9th-graders – were provided with some feedback on their performance after their recording session, and thus were able to practice the type of task they would eventually be graded on (ibid.). The learners were paired up with a classmate, and requested to interact in English (ibid.). The recordings were made in a separate room at the learners' school, with only the researcher and her assistant present

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[28] Due to restrictions imposed by the COVID-19 pandemic, prospective participants were informed that they would be participating in computer-mediated interaction (see Tudini 2020: 265).

[29] My heartfelt thanks to Dagmar Barth-Weingarten for allowing me to use her data for my research.

aside from the learners themselves. During the recording session, the participants first received a set of role-cards fitting with their personal interests (which the researcher had previously asked them about, ibid.), as well as some 'useful phrases'. They were allowed a short time to prepare some notes (about five minutes, ibid.) before the researcher engaged them in 'warm up' small talk in English (ibid.). Only after this did they start with the role-play task.[30] In my study, I focused on the role-playing part of the recordings only, reviewing seven learners' performances (amounting to roughly 20 minutes of data), five of whom form a cohort of 7th-graders. The secondary school learners are considered 'intermediary'-level learners in the sense that in terms of the amount of EFL instruction received, and consequently in terms of their assumed level of L2 development, they can be located somewhere inbetween the beginner and advanced groups. The denominations I have chosen therefore are meant to indicate relative distinctions between the groups of learners, and not any specific levels of language proficiency they are assumed to have reached.

All participants classified as intermediary- or advanced-level learners provided informed consent to their being recorded – if they were not yet of full age, consent was given by their parent or legal guardian. As regards the QUA-LiS NRW corpus, the website confirms that the recordings comply with the legal standards (QUA-LiS: "Unterrichtsvideos", 2022, website). To ensure the participants' rights, all data will be used in anonymised form only, including the pseudonymisation of participants, and the removal of any information that may allow identification of the speakers from the transcript.

Two relevant matters are revealed by this overview. For one, most of the data my study is based on, with the exception of the beginner-level data, is not 'naturally occurring' in the traditional CA understanding, and therefore less-than-fully consequential to the participants[31]. However, I deemed this acceptable for this project, given that

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[30] It should be noted that the learners were seated next to each other for the recording, starting out facing the camera for the warm-up. Most of the pairs did not change the seating arrangement once the role-playing part started, and thus did not face each other. This, of course, has implications regarding the bodily-visual cues available to the co-participants as sense-making resources.

[31] This is not to say that the interaction the learners were engaging in was 'artificial' – the tasks they were provided with closely mirror commonplace real-life interactional encounters, both within the classroom and without. Still, a note should be made that future research should endeavor to corroborate the results of this study with fully authentic talk.

my interest is in EFL learners' repair skills. As I have discussed earlier (see Chapter 1), repair must be considered a core interactional skill, not least because repair is ubiquitous, and ubiquitously relevant, in any type of interaction. Problems of speaking, hearing and understanding may compromise intersubjectivity at any point in talk-in-interaction, and, regardless of the type and setting of the encounter, must be dealt with to allow for interactional success (see also Barth-Weingarten 2021: 213, who raises the same point; furthermore, see Greer 2013: 103).

It is also to be noted that the learners in the different groups clearly engage in distinct types of task. This most straightforwardly differentiates the beginner-level learners' data from the intermediary- and advanced-level data. While the novices routinely engage in tasks that require them to produce utterances which are partly to mostly scripted, talk is far less guided for the intermediary-level learners (although it is still based on a clear-cut objective and a detailed role-card), and even less so for the advanced-level learners, whose interaction departs from a generic instruction to discuss a complex topic, and some prompts to facilitate their talk. As I noted above, the COVID-19 pandemic unfortunately prevented the collection of further data that would have allowed for better comparability. I decided in favour of using the data available to me, and in the course of my analyses, endeavour to take these differences in task type into account whenever necessary.

4.2 Methods of Case Selection

4.2.1 Inclusion Criteria

To identify relevant cases for my collection, I scanned my data-sets for clear instances of repair. As I have noted before, the central identifying criterion for repair is a halt in progressivity (see section 3.1.1.4). However, it has been noted in the past that pauses, hesitation markers and other 'speech perturbations' indicating such a halt are ubiquitous, particularly in learner talk (Kurhila 2006: 93), and that (at least) in L1-interaction, short intra-TCU/turn pauses could also constitute "deliberate halts of speech fluency" (Auer & Zima 2021: 394) used for interactional aims other than dealing with trouble (ibid.). Collecting all instances in which any perturbations occur thus "would … result … in an immense number of cases that would … not necessarily [have] … much in common" (Kurhila 2006: 147). Consequently, I restricted my collection to those instances in which there is either a *remarkable* halt in progressivity in the trouble-source turn, or clear orientation to trouble by a co-participant through OIR or other-repair.

While cases making up the latter subcollection can be identified fairly straightforwardly by, for instance, drawing on the well-researched practices of other-initiation (see section 3.1.2.2) or by finding instances of SIOR, the criteria I used to identify 'remarkable' halts in progressivity (see Barth-Weingarten 2021: 213) within a trouble-source turn require some explication. I departed from the approach chosen by Barth-Weingarten (ibid.) in her recent study on L2 learners' repair skills. She identified her cases through looking for TCU-internal "prolonged speech perturbations" (ibid.) resulting either from an unfilled pause with a duration of two or more silent beats, or from two 'attempts' (ibid.) at producing the projectably next item, with which she refers to both the lexical means and the 'non-lexical speech perturbations' I discussed in section 3.1.2.1. In a similar vein, to identify 'remarkable' halts in progressivity I looked for cases in which a speaker delays the production of their own talk by

- producing an unfilled pause spanning at least two silent beats (ibid.); accounting for very halting speech, I also included cases in which the delay results from an unfilled pause surpassing two seconds in length, following accounts that pauses of such length are remarkable even for L2 talk (Gardner 2007: 69) or

- producing a combination of at least two speech perturbations and/or lexical devices used for SIR (e.g., shorter unfilled pauses, hesitation markers, sound lengthening, breathing, particles, recycling; Barth-Weingarten 2021: 213)

In her study, Barth-Weingarten (2021) was interested in word searches in particular, specifically in the participants' bodily-visual conduct while employing this SIR practice. Since I do not share this specific focus, I was able to expand on the identifying features she used (see also Auer & Zima 2021: 394) by including cases in which the speaker utilises

- a combination of at least two, subsequently produced, verbal and bodily-visual cues indicating trouble (i.e., a combination of some speech perturbation with a bodily-visual cue such as gaze withdrawal) or

- some notable speech perturbation and a recognisable operation on a trouble source that had already been (partially) articulated.

Furthermore, there was no need for me to restrict my focus to speech perturbations "occurring in the middle of TCUs" (Barth-Weingarten 2021: 213). I also included

cases in which delayed progressivity occurs elsewhere within the TCU, so that in contrast to Barth-Weingarten's collection, cases in which learners initiate their TCU with a series of speech perturbations also were eligible for my collection.

4.2.2 Sample Size

Originally, I aimed to base my analyses on cases produced by two learners each from both the beginner and advanced-level groups, and a cohort of intermediary-level learners. However, restrictions imposed by the available data, and the aforementioned problems in acquiring additional data, required me to deviate from this.

For one, there is no one learner within the *beginner-level data* set that features prominently enough in the recordings to produce enough instances of repair. Consequently, cases by a total of 18 learners are included in that subcollection. The issue was compounded by the beginner-level data itself limiting which cases I was able to include (see section 4.1): Unfortunately, the videos' editing does not always allow for (full) visual access to the participants. I therefore excluded all those cases in which, for instance, the video cuts away from the learners to ambient objects.

Furthermore, it is notable that within the *intermediary-level data*, the amount of candidate cases available per learner fluctuates. To prevent overrepresentation of any single learner within the collection, I therefore restricted the amount of cases I included from the more prolific learners of that group.

In a first round of single-case analyses, I was able to identify some instances of 'pseudo repair' (see Kendrick 2015; section 3.1.1.4). These, I excluded from my collection. After this step, adding up the cases I found in all my data sets, I retained a total of 131 clear instances of repair for my analyses. Notably, and not least due to the aforementioned external circumstances impacting my work on this project, I decidedly understand my study to be a *pilot study* that serves as a first attempt at identifying candidate criterial features for the assessment of L2 learners' repair skills on the basis of a qualitative, emic and inductive investigation of learner performances. My research tests the feasibility of approaching the determination of "potential IC markers" (Roever & Dai 2021: 34) through CA research. In consequence, quantitative aspects do not constitute a main part of my study. My focus is on qualitative inquiry based on comparisons between detailed, descriptive single-case analyses rather than on the bare amount of times a given phenomenon occurs, and quantitative remarks only serve to provide support for observations based on my qualitative analyses. This allowed me

to forego strictly restricting my intermediary-level learner data to a third of my collection, and thus enabled more thorough comparisons between the 7th-graders. Furthermore, I was able to include some cases produced by two 9th-graders in order to investigate possible differences between groups of intermediary-level learners. I will discuss some possible methodological implications of these decisions for further research pursuing a similar objective as mine in section 7.2.

4.2.3 Transcription

The extracts containing my cases were transcribed, or retranscribed, as basic transcripts according to the GAT2-conventions specified for English (Couper-Kuhlen & Barth-Weingarten 2011; see Appendix A). For transcribing bodily-visual conduct, I drew on the conventions for multimodal transcription as proposed by Mondada (2019; see Appendix B).

4.3 Methods of Analysis

As I noted before, this study is motivated by the current lack of, and the resulting need to develop, an empirically based rubric for the assessment of L2 IC which is accessible to practicing teachers and raters. While there is at least one rubric dedicated to the construct (see section 1.2), it requires testing. This is in particular because that rubric is exclusively based on a review of established CA and CA-SLA findings on the interactional skills included. The criteria derived from these findings have yet to be proven applicable for the assessment of the specific learners that the rubric is meant to be used for (i.e., EFL learners who acquire(d) the language through standardised formal instruction at German schools).

Thus, although the review of existing literature on (L2 learners') repair skills is an important component of my approach, it only constituted the starting point of my research. "[P]otential IC markers" (Roever & Dai 2021: 34) identified or suggested by prior studies informed my analysis of the learner data. To this effect, my approach resembles that of Walters (2021), who revises a pre-existing rating scale focusing on compliment responses (:393-394) by carrying out qualitative analyses of performances elicited from L2 testees through largely unscripted interaction (:392). As he professes, compliment responses were chosen as the focal point of research "because they are well documented in the CA literature and thus were considered to be reasonable candidates for the articulation of a test norm" (ibid.). In other words, for his selection, and

initial operationalisation, of the candidate criterion "ability to produce, in English, responses to compliments" (ibid.), Walters (2021) drew on established CA findings based on analyses of L1 data. In his own analyses, he then works out differences between the L2 learners' conduct and what has been reported for L1 interaction, implicating that the extent to which a testee shows 'non-native' conduct serves as an index for the degree of sophistication of their IC (ibid.: 394). On the basis of his findings, he is able to (partially) revise his scale by adding more detailed descriptors for some of the levels (ibid.: 397). As I have noted before, Walters' (2021) approach clearly constitutes a performance-driven method of scale development (Fulcher et al. 2011; see section 2.2.2). Given his (partial) success, even if my approach is not entirely identical to his, the extensive similarities there are offer the promise that my findings will also be usable for scale development.

Centrally, in contrast to Walters (2021), my primary aim is not to identify the ways in which my learners diverge from patterns described for L1 interaction, but rather to qualitatively and inductively explore how a) my learner groups and b) the learners forming my 7th-grader cohort differ from each other in terms of the repair work that they conduct. Consequently, as I carried out my analyses – following CA/IL methodological principles as well as drawing on basic premises of CA-SLA research (see section 2.1) – and came to notice additional promising phenomena and aspects, I included these into later rounds of single-case analyses. These single-case analyses then provided the basis for two distinct analytical steps: For one, I conducted a cross-sectional analysis, comparing the repair work done by the learners making up my three distinct groups. Furthermore, I engaged in a focused comparison of the individual learners of my 7th-grader cohort.

Carrying out both types of comparative analyses allows for a wide range of possible insights: Not only can my study help substantiate or challenge the results of prior CA-SLA research, or even reveal additional aspects to (the development of) L2 repair skills not yet investigated, but carrying out two distinct analytic steps will enable me to potentially develop two sets of candidate criterial features. Thus, I can gain insight into whether specific assessment settings require specific assessment criteria, and – should this be the case – into the make-up of these two sets.

On a related note, focusing on reviewing learners' L2 repair comparatively enables me to approach the identification of candidate criterial features independently of a native speaker norm. While my research may well provide support for previous insight

positing that as learners' L2 interactional skills become more sophisticated, their interactional conduct becomes more L2-like (e.g. Pekarek Doehler 2018: 6), it is not a given that the degree to which learners match conduct displayed by L1 speakers of the language being learnt is the main feature indicating L2 IC development.

In this chapter, I reviewed the data and methodology I used for my analyses. First, I introduced the raw data I investigated, providing relevant information on the corpora and collections of recordings I drew on for beginner-, intermediary- and advanced-level data. Subsequently, I discussed how I compiled my collection of instances of repair, and my general analytical approach. In the next chapter, I will report on the results of my analyses.

5 Identifying Candidate Criterial Features for Assessing L2 Learners' Repair Skills

This chapter is made up of four main sections. Within these, I report both on aspects of L2 learners' repair work for which developmental trajectories have previously been discussed, and on phenomena that, according to an open analysis of my data, may reveal additional differences between my (groups of) learners. In section 5.1, I will be reviewing the use of the four main repair types in my data, as well as my learners' orientation to general repair preferences. After thus considering the repair instance as a whole, I will be discussing aspects related to various parts of the repair process: Section 5.2 will focus on the two repair *initiation* practices most prevalent in my data, searches and bricolage. In section 5.3, I will discuss L1-based practices of repair, with particular focus on when these practices are used to accomplish *self-repair*. Finally, in section 5.4, I turn to the repair *outcome*, and analyse the cases of unsuccessful and assisted repair I found in my data. In each section, I will provide an overview of differences I observed between my learner groups and/or the learners forming my 7th-grader cohort in terms of their repair conduct. From these, I will derive candidate criterial features for assessing repair skills. In all my analyses, I will draw upon representative examples from my collection to illustrate the phenomena at hand.

5.1 Repair Types and Learners' Orientation to Repair Preferences

In this first analytic chapter, my focus is on L2 learners' use of the four main types of repair, and their orientation to the generic preferences for self- over other-initiation of repair, and for self-repair over other-repair (see section 3.1.1.2). I will start by briefly reviewing relevant insights into these matters provided by previous literature, and then discuss my own observations.

5.1.1 Previous Research on Repair Types in L2 Interaction

To my knowledge, there are no CA-SLA studies thus far which comprehensively investigate differences between learner levels in terms of the main types of repair produced by learners, and the relative distribution of these types in their talk. Yet, some puzzle pieces on that subject matter can be gathered from available studies (e.g. Farina et al. 2012[32]; Hellermann 2009, 2011; Hosoda 2006; Pekarek Doehler & Berger 2019).

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[32] As referenced in Pekarek Doehler & Pochon-Berger (2015). While I have the original study available, lack of proficiency in French unfortunately prevents me from reviewing it myself. Therefore, when

Some research investigating learner talk, such as Brouwer et al. (2004), has noted that no significant differences can be observed between "monolingual conversational data" (:76) and second language interaction in terms of the relative frequencies of repair types: Self-repair, for instance, is reported to be more frequent than either type of other-initiated repair in L2 talk as well (Rasmussen & Wagner 2000, as referenced ibid.). However, such observations may need to be treated with caution. Most relevantly, the data analysed does not necessarily allow for the claims made: Brouwer et al. primarily draw on L1-L2 interaction (2004: 75-76), and indicate that Rasmussen & Wagner (2000) utilise the same data (Brouwer et al. 2004: 76). While such data certainly permits the observation that self-repair by the L2 learner is proportionally more frequent than repair done by other (the L1 speaker), it remains open in how far the comparative rarity of other-initiation and other-repair would also apply to learner-learner interaction. Given that elsewhere (see, e.g., Siegel 2013), it is observed that SISR only gradually becomes the norm in L2 talk, this matter warrants close investigation in my data.

Longitudinal and cross-sectional research specifically investigating learners' repair work shows that there are some changes over time, particularly in the proportions with which the main repair types occur. Even at beginner level, language learners are not restricted as to the type of repair *initiation* they may carry out – they already can be shown to accomplish self- and other-initiation (Hellermann 2009, 2011). Still, other-initiation is noted to constitute quite a common phenomenon (Hellermann 2011: 152) at that point of foreign language learning, although it may be more likely to occur with 'high-scoring' beginning students than with those who score lower in terms of speaking skills (Kley et al. 2021: 179-181). As learners progress from beginner to (lower-) intermediate level, they reportedly engage in self-initiated (self-) repair with increasing frequency, independently of the type of task they are carrying out (Hellermann 2009: 121-122). This is noted to indicate a developing ability to recognise problems in their own talk, and thus a growing linguistic competence (ibid.).

As regards the repair *operation*, there similarly is evidence that learners are able to engage in both self- and other-repair from novice-level onwards (Hellermann 2009, 2011). Once again, other-repair is said to be common at beginner level (Hellermann 2011: 152), while at (lower-) intermediate level, learners start increasingly conducting

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Farina et al. (2012) is referred to in this book from here on, it should be understood that I base my use of it on Pekarek Doehler & Pochon-Berger's (2015: 250-254) commentary on the paper.

(self-initiated) self-repair, displaying their growing ability to deal with their own problems of speaking (Hellermann 2009: 121-122).

Other research similarly claims that changes in repair conduct reflect learners' increasing ability to resolve their own trouble. This assertion departs from evidence that in earlier stages of the language learning process, learners tend to frequently engage in repair sequences – that is, they contribute to OISR and SIOR – and that only over time, there is a shift to SISR as the dominant repair type (Siegel 2013: 99[33]). A number of studies have noted that a decrease in usage of SIOR in particular can be observed for the boundary between (upper-) intermediate and advanced learner levels (Farina et al. 2012; see also Hosoda 2006: 32; Pekarek Doehler & Berger 2019: 55).

In sum, the available research suggests that which repair types learners (most frequently) engage in may change with learner level, with an increasing predominance of self-initiation, self-repair, and consequently, SISR. Given that literature has indicated that like L1 speakers, L2 learners show a preference for self-repair (Hellermann 2009: 116), these shifts in frequency may be an outcome of, and thus a display for, an increasing orientation to the preferences for self-initiation and self-repair in their L2 repair work. To reveal systematic differences between general learner levels and/or members of a learner cohort, I therefore consider it promising to investigate

- which repair types my learners (most frequently) engage in,
- whether my learners show orientation to the preferences for self- over other-initiation of repair, and for self- over other-repair.

As my analyses will show, my learner groups differ most clearly in terms of their orientation to the preference for self-initiation of repair over other-initiation of repair: In my data, learners only start distinctly treating OIR as a dispreferred action at (higher) intermediary level. On the other hand, attempts to avoid, or ascertain the need for, other-repair are observable from the beginner-level onwards, clearly displaying orientation to the preference for self- over other-repair throughout learner levels. Regarding the occurrence and proportions of repair types, however, further investigation is required to fully ascertain whether any candidate criterial features could be posited. In

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[33] While not looking at language learners, Martin & Sahlström (2010: 679) observe a similar development in their investigation of interaction in physiotherapy: Although there initially are a number of instances of other-initiation and other-repair, over time self-initiation and self-repair become the more frequent types.

the following, I will show my findings in detail, starting with a general review of the repair types which occur in my data.

5.1.2 The Occurrence of Repair Types within the Data

5.1.2.1 Taking Stock

Given that in this section, I discuss the repair types that my learners engage in, I focus on those cases within my collection in which the learners successfully carry out full instances of repair in the sense that repair initiation is followed up on with a candidate solution (Schegloff 2000: 207; see section 5.4). Successful repair makes up the vast majority of cases across my data, amounting to 120 cases overall[34].

For all of my learner groups, *SISR* constitutes the most frequent type of repair by far. Extract 19 provides a representative example of this repair type as found in the beginner-level learners' data. Bea and her two groupmates, all 4th-graders, are rotating through work stations related to an ongoing unit on 'wintertime' (QUA-LiS: "Film-sequenzen Film 3 – *It's wintertime* (4. Klasse)", 2023, website). At the station in focus here, the learners' task is to play a game: From a picture puzzle provided to them, they are supposed to choose a character and describe that character's clothing. Their group-mates are to use this description to identify the character. Just prior to Extract 19, Bea had correctly guessed Gia's choice, so she now has the right and responsibility to take the next turn. After having been selected as next speaker by Gia (line 01), and ac-knowledging that selection (line 02), Bea encounters trouble in formulating her first hint (lines 06, 09).

Extract 19: red jacket (QUA-LiS NRW 03.3, 2:47-3:05)
```
01   Gia:    it's YOUR [turn?]
02   Bea:             [ it's] my TURN?
03   ???:    °h
04   Bea:    ((looks around the picture, appr. 5 seconds))
05           §m_hm the MA:N?~ (0.9)
     bea:    §looks at picture puzzle-->
     ana:                ~points at puzzle-->
06           @is w~ear<<laughing>ing>@
     bea:    @shakes head          @
     ana:         ~
```

```
07   Gia:   ((laughs))
  →  Bea:   °h re:d (.) § (1.6)
                        §looks at poster-->
08   Gia:   YES?
09 → Bea:   ä:hm: §(0.8) red JAcket?
                        §turns gaze to picture puzzle-->>
```

Bea takes some time to choose which character in the picture-puzzle to describe (line 04). When she eventually launches her turn by projecting that she will be describing a 'man' (line 05), she is briefly distracted by Ana, one of her co-participants, pointing at the picture and thus providing a first guess as to which character Bea might be describing. As Bea continues her turn (line 06), she simultaneously disconfirms Ana's guess through shaking her head, and indexes that Ana came in too early by interspersing her talk with laughter particles. At this point, it is clear that Bea is following the script provided by a task card available at the station, which contains the sentence the learners are to complete: 'A man (boy/woman/girl) is wearing …'. Given that all the learners' descriptions recorded for this activity follow the same pattern, the learners clearly know that they are to complete the sentence with a noun phrase containing both a color adjective and a noun denoting an article of clothing. After Bea produces the premodifying adjective (re:d), however, a long unfilled pause ensues, providing – together with the lengthening on the adjective – clear indication that there is some trouble. Furthermore, early during this pause, Bea withdraws her gaze from the picture puzzle, which so far she had been looking at throughout her entire turn. She turns both her head and gaze to her right, where, as has been shown earlier in the recording, a poster is located displaying various types of clothing articles and the corresponding vocabulary items. After producing a lengthened hesitation marker (ä:hm:) and another unfilled pause (line 09), Bea is able to resolve the trouble by herself, producing the noun JAcket and pre-framing (Sidnell 2010: 115) this candidate continuation by recycling the premodifying adjective. Retrospectively, it is clear that Bea's halt in progressivity was occasioned by the unavailability of the next-due lexical item, an issue that she both initiated repair on, and was able to resolve with the help of supplementary material provided, resulting in an instance of SISR.

A case of SISR found in my intermediary-level learners' data is included in Extract 20. Maik, a 7th-grader, is engaged in a role-play in which he is tasked to convince his

partner, Leo, to agree to watch a football match during a fictitious TV night. Leo himself is arguing in favour of watching a sailing regatta. Just previously to the excerpt provided here, Leo had claimed that while there may be some exciting moments in football matches, sailing races are far more suspenseful overall. Maik had accepted this, but noted in response that just like a standard feature-length film, football matches generally run for ninety minutes. This predictable length, he now argues, makes a football match into a good choice for a TV night (line 01).

Extract 20: good for tee vee night (SSL_191108_5, 4:49-4:54)

```
01 → Mai:    =and $i think$°h it's good f§or (0.2) d_$ä:h
                  $gazes ahead              $looks down at
                                             notes-->>
                            $RH scratches             $RH rubs
                             left ear                  left
                                                       cheek-->
    →          (0.6) tee VEE $night;             $
                            $RH rubs mouth,
                             then moved to lap$
```

After producing a preposition (`for`), and thus clearly projecting a prepositional complement to occur next (most likely a noun, pronoun or full noun phrase), Maik suspends his ongoing unit, by producing first a fairly short unfilled pause, then a lengthened hesitation marker and another unfilled pause. While originally gazing into the 'middle distance' (Goodwin 1981: 98), he looks down to the notes he is holding in his hand just prior to the first unfilled pause, and keeps his gaze there throughout the halt in progressivity. This indicates that what Maik is dealing with here is, indeed, a problem of speaking, of finding the next-due item that he needs to complete his unit-in-progress. Like Bea in Extract 19 above, Maik eventually produces the candidate continuation (`tee VEE night`) himself, and thus accomplishes SISR.

Two representative cases of SISR in the advanced-level learners' data are presented in Extract 21. The participants in this face-to-face discussion between university-level learners are talking about data privacy in an increasingly digitalised world. Following a long stretch of talk in which they discussed the risks of sharing private data online, Lisbeth just raised the claim that privacy in general, and data privacy in particular, may be a topic gaining prominence precisely because of increasing digitalisation. She noted that for older generations, privacy may not have been as conscious a concern as it is

112

for herself and her peers, and now goes on to account for her claim. She aims to indicate that there is a cultural shift, the effects of which she and her co-participants are currently experiencing (lines 02-04). In trying to make this point, however, she encounters trouble multiple times, most notably in lines 03-04.

Extract 21: like culturally (CeLE-P, ELF_02, 27:05-27:13)

```
01   Bas:   [hh°        *        ]
02   Lis:   [=because *i think] there's
                      *looks down-->
03 →        °hh *  uhm | there's ~been a:: ~ (.)
                                  ~RH slides
                                   right     ~
                  *slightly looks up-->
   →        +~de*vElopment in: (-)+~*(-)      *ähm: ▫(1.3)▫*
            +nods                +
             ~RH slide repeated,
              then hands flattened ~
                *looks at Zahra     *looks up *gaze wanders*
                                               ▫mouth
                                                moves▫
04 →        ~like +*CULtural*ly,~ +
            ~circles hands       ~
                +nods, turns
                 head to Bastien
                 then Zahra     +
                 *looks at*looks at Zahra-->>
                  Bastien
```

In line 03, Lisbeth produces the better part of an existential clause (`there's been a::`), but then halts further progression of the ongoing unit, first by lengthening the article, and then by producing a micropause. While overall this is a fairly brief halt in progressivity, Lisbeth herself indicates, by starting to nod upon her resumption of the TCU, and moving her gaze from the 'middle distance' (Goodwin 1981: 98) to Zahra at roughly the same time, that she considers some problem of speaking to be satisfactorily resolved now. Just subsequently, though, there is another, more extensive, halt in progressivity. Projecting post-modification of the noun she had just produced as a candidate continuation (`devElopment`), Lisbeth utters a preposition (`in:`). This function word itself already features some slight lengthening. Further indication for self-

initiation of repair is provided by the unfilled pauses that follow, and the hesitation marker that divides them. Lisbeth withdraws her gaze from Zahra and utilises a recognisable 'thinking face' (see Couper-Kuhlen & Selting 2018: 122). Her mouth movement provides additional indication that she is engaged in a search for a next-due, but currently unavailable, item or unit. Finally, Lisbeth produces a candidate completion for her ongoing TCU (`like CULturally`, line 04). In both cases, Lisbeth initiates repair on, and resolves, her own trouble of speaking, producing instances of SISR.

Instances of *SIOR* are far less frequent than SISR in my data, but can still be found in all data sets. Extract 22 provides a straightforward example of this repair type as produced by my novice learners. It is from a session in which 4th-grade learners talk about their 'favourite pets'. Freya has just started introducing her cat to some of her classmates. Soon after starting her TCU, Freya encounters trouble of speaking (line 01).

Extract 22: four legs (QUA-LiS NRW 04.4, 1:39-1:49)

```
01 → Fre:   ähm::_((click)) (1.0) it's* f:::+our   + * (.) f
            >>looks at own paper     *looks up      *looks at
                                      at girl        paper-->
                                          +slight
                                          nod   +

    →       +ä*ö:h +    *uhm u_four ▫   (0.5)   ▫
              *looks at *looks at paper-->
               girl
            +shakes
             head  +
                                    ▫opens mouth▫
02 → Gre:   LEGS? *
    fre:         *looks at Greta-->
03   Fre:   L+*EGS?+
              *looks at paper-->>
            +nods +
```

She noticeably struggles with producing the quantifier, but manages to resolve that issue by herself, indicating that she considers her self-repair successful by nodding and withdrawing her gaze from a fellow student back to the paper in her hand (line 01). Afterwards, however, she cuts herself off immediately upon starting the continuation of her ongoing TCU, likely because she notices a slip of the tongue which projects an

inadvertent repeat of the quantifier rather than the production of the noun due next. What follows are multiple hesitation markers, a full repeat of the quantifier, and an unfilled pause. Along with a headshake concurrent with the first hesitation marker, and her brief gaze movement towards the classmate she had already looked at during her prior repair, these features clearly indicate an issue of speaking. By providing a candidate solution (line 02), Greta shows that to her understanding, Freya struggles with finding the next-due lexical item. Freya confirms this by repeating the candidate and thus ratifying it as the fitting solution (line 03). While Freya clearly initiates the repair on her trouble of speaking, it is Greta who provides the candidate continuation, contributing to the resulting instance of SIOR. I will return to this case later in this chapter.

The intermediary-level data contains one clear instance of SIOR, an instance included here as Extract 23. I will be discussing this particular extract in much more detail in a later section, and thus will only briefly summarise my analysis of this case as an instance of SIOR here. Part of the same recording as Extract 20 above, Maik has found a compromise with Leo on what to watch during their TV night, and has now moved on to another item on the agenda, namely what to eat during their get-together. Leo just proposed that they eat burgers. When following up on this suggestion, Maik encounters a lexical issue (lines 01-02).

Extract 23: was heißt bestellen (SSL_191108_5, 8:05-8:09)

```
01 → Mai:   ((click)) oKAY;=$burger we ca$§n:      $äh °hh
     mai:   >>looks down-left               $moves gaze
                                             right-->
     mai:                     $lifts RH    $RH moves $RH scrat-
                                           to left   ches left
                                           ear       cheek-->
     leo:   >>looks at Maik-->
   →         äh::
02 →         <<Ger, whispering>§was heißt
                           how do I say
     mai:                    §gaze and head
                             turn to Res-->>
   →         be*%STELlen%;>_<<:-)> h°>
             'bestellen'
     mai:       %smiles %
     leo:      *looks at Res-->
```

```
03 → Res:    ((click)) <<whispering> ORder-> (0.5)$*
   mai:                                      $lowers RH
                                              from left
                                              cheek
   leo:                                      *looks at
                                              Maik-->>
04 →         [((click)) ORder,]
05   Mai:    [     uh     ]
06           ORder (.) burger f_from: °h (ä:h/ö:h ä:h/ö:h)
             <<Ger> lieferdienst;>_<<:-)> h°>
                    delivery service
```

That he is dealing with trouble of speaking, and finding a particular next-due lexical item, is made explicit via his vocabulary question (`was heißt beSTELLen`; line 02). As he is gazing in the direction of the researcher when uttering this question, it is clear that he is asking her to provide the information he needs. She does so (line 03), but needs to repeat the item (line 04) before Maik is able to resume his unit-in-progress (line 06). Once again, while the learner initiates repair on their own trouble of speaking, he does not produce the repair solution himself, making this recognisable as an instance of SIOR.

One instance of SIOR found in the advanced-level learners' data is is presented in Extract 24, which stems from the same face-to-face discussion as Extract 21. At this point in the interaction, Zahra just read out a question from the discussion card, asking the participants for their opinion on whether, and how, the NSA affair has changed their view on digital communication media. Zahra indicates that she does not know how to answer this question (lines 01-02). Bastien, however, has a clear opinion. He confirms that the NSA affair did have a distinct effect, but struggles to find the words to express what he considers this effect to be (lines 03-04).

Extract 24: it raised the attention (CeLE-P, ELF_02, 18:52-18:59)
```
01   Zah:    (i'm no) (.) | not sure
02           (did they) change m§uch °h
   bas:   >>looks at Zahra   $gaze moves right-->
   bas:   >>fiddles with pen-->>
   lis:   >>looks down-->
   lis:   >>LH props up head-->
```

```
03 →  Bas:    ¤yeah=it raise+~¤d_|_§u:h+¤m+~ (-)
       bas:                        §looks at pen-->
       lis:  ¤smiles          ¤opens and
                               closes mt¤
       lis:              +lifts        +nods-->
                          head    +
       lis:             ~RH to glass
                         LH folds in ~
04 →           it it rai+*sed (.)
       lis:          +turns head to Bastien,
                      continues nodding-->
       lis:          *looks at Bastien-->
               th[e: at@§TE][Ntio*+n;]
05 →  Lis:    [  aWA@§RE][ness*+. ]
06    Zah:             [aWAR*+En][e(ss-)]
       lis:              *gaze moves down and right-->>
       lis:               +head turns right,
                          continues nodding-->
       bas:         @turns head to Lisbeth, nods-->
       bas:          §looks at Lisbeth-->
07    Bas:                  [ aWARE]ness;@§+
       bas:                              @straightens
                                          head-->>
       bas:                              §looks at
                                           pen-->>
       lis:                              +nods-->>
```

Bastien suspends his talk at a point at which his unit-in-progress clearly has not yet reached possible completion. However, there is a very strong collocational projection created by the use of raised as the main verb, as visible in Lisbeth's and Zahra's near-simultaneous proffering of the same candidate continuation (aWAREness, lines 05-06). Bastien, however, is unable to immediately access the next-due item, and initiates repair through a lengthened hesitation marker, followed by an unfilled pause and a restart of the TCU-in-progress. While he does produce his own candidate continuation (attention, line 04), this is in overlap with Lisbeth's candidate. Bastien's subsequent ratification of Lisbeth's candidate through his repeat in line 07 – notably, he looks at her rather than Zahra when both produce candidate continuations – shows that retrospectively, this case is treated, and thus can be analysed, as an instance of SIOR.

Only very rarely do any of my learners engage in other-initiated repair, although some few cases of OISR and OIOR can be found in both the beginner- and intermediary-level data sets. *OISR* in the novice-level data is illustrated with Extract 25. Part of the same lesson that Extract 19 is taken from, the learners here are recorded at another work station, at which they are to play a game of Go Fish. Martin just lost a card to another player, and now starts his own turn, which Nico has trouble hearing in full, and thus initiates repair on (line 03).

Extract 25: socks number three (QUA-LiS NRW 03.4, 1:10-1:18)

```
01   Mar:   NIco;=
02          =(öhm) have you go::t (socks)
            num:be::r (0.3) THREE?
03 → Nic:   SOCKS?
04 → Mar:   ((no[ds)) ]
05   Nic:      [yes i] HAVE;
```

Martin first selects Nico as the recipient of his question, and then inquires after a particular card (lines 01-02). There is notable background noise throughout Martin's turn, reaching a surge right as he produces the noun (`(socks)`). As it is one of the two lexical items Nico needs for identifying which card he is being asked for, this may explain why Nico sees the need to carry out a hearing check (Couper-Kuhlen & Selting 2018: 160) on Martin's turn, thus other-initiating repair. His partial repeat of the trouble-source turn (line 03) is produced as a candidate hearing through the rising final intonation (ibid.), and treated as such by Martin, who nods in confirmation (line 04) and thus carries out self-repair. The issue of hearing resolved with this instance of OISR, Nico then provides the relevant SPP to Martin's inquiry (line 05).

A straightforward case of *OIOR* in the beginner-level data occurs in an entirely different lesson, and is provided in Extract 26 below. Here, Fred carries out OIOR on Emil's problematic word choice (line 08). The 3rd grade class they are part of had, in a previous session, built their own toy zoo. Now, the students are tasked to act out their favorite 'zoo story'. Fred and Emil are currently preparing for this, and are engaged in describing some animals, with Emil focusing on those in the bird enclosure. To produce his descriptions, he recurrently draws on the same syntactic format, which had emerged in a revision discussion at the beginning of the session: Participants produce a copular structure, first naming a type of animal, and then providing an assessing

description (i.e., 'the [animal] is (very) [adjective]'). Just prior to Extract 26, Emil had launched another turn projected to become an assessment, but then he apparently encountered trouble with identifying the animal he aims to describe. This occasions the exchange in lines 01-04, in the course of which Fred ascertains that what Emil is looking at on the handout (a miniature version of the zoo) in front of him is an eagle, rather than a peregrine falcon. As Emil launches into his next assessment (line 06), it occasions an explicit correction by Fred (line 08).

Extract 26: the eagle (QUA-LiS NRW 08.3.3, 3:34-3:40)

```
01    Fre:    <<Ger> ähm das is der> (0.2) [EAgle;]
                       this is the eagle
02    Emi:                                  [    PEr]egrine;
03            (.)
04    Fre:    <<Ger> nein (die)> EAgle;
                     no (the) eagle
05            (0.3)
06    Emi:    de peree (0.2)
      fre:    >>looks at handout-->
07            [uh]
08 →  Fre:    [$d]e EAgle;
               $looks at Emil-->
09    Emi:    te [ea ]
10    Fre:       $[THE]    eag$le;
                 $closes eyes $looks at handout-->>
```

When Emil starts producing his turn in line 06, he clearly projects that he will describe the 'peregrine'. This is reflected in Fred's producing a replacement for the incipient noun phrase in line 08 (de EAgle). Although Emil notably cuts off his TCU-in-progress prior to full completion of the problematic noun, the timing of Fred's correction, as well as its prosodic design, point towards his turn not being other-repair following self-initiation, but straightforward other-initiated other-repair. Prosodically, there is much prominence on the noun, in particular in terms of loudness. It also is produced with a slightly higher pitch compared to Fred's previous use of the word. Furthermore, while producing the correction, Fred turns his gaze from the handout to Emil. Emil clearly recognises this as an instance of other-correction as well – he starts repeating the replacement in line 09, even if he is cut off by Fred's self-correction (line 10).

The only instance of OISR to be found in the intermediary-level data is produced by the pair of 9th-graders, the slightly higher-level intermediary learners. It occurs at a

point in their role-play at which the participants (Lora and Barbara) are just starting to negotiate what to watch during their get-together[35]. Lora just indicated some hesitation regarding Barbara's suggestion to watch horror movies, claiming that she gets scared easily. Barbara responded with a request for a counter-proposal. After Lora voices her preference for comedies, Barbara provides a negative assessment of this genre, for which she draws on the non-L2-like lexical descriptor 'bored'. Subsequently, a lapse ensues. Lasting for 1.7 seconds, it is extensive, even considering that it is not unusual for Lora and Barbara to delay their turn-beginnings, in particular when a dispreferred next action is about to be produced. Eventually, the lapse is resolved by Lora's OIR on the descriptor Barbara used in her assessment – she utters the item 'boring', produced with mid-rising final intonation. Lora clearly works to make her repair initiation hearable as a candidate understanding, rather than a straightforward correction of Barbara's lexical choice. As noted by Couper-Kuhlen & Selting (2018: 160, 170), partially repeating the trouble-source turn with final rising intonation may be employed as a practice for other-initiating repair on issues of both hearing and understanding. The authors do mention the possibility that this partial repeat need not be an exact recreation of the trouble source (ibid.: 161), but they only note this option of modifying the repeat in the context of dealing with hearing issues. It is unlikely that what Lora is struggling with is a hearing problem, given that there is no significant background noise, and Barbara is producing her descriptor with a very clearly audible final plosive sound. However, it has been shown elsewhere that especially in L2 speakers' talk, when there is other-initiation of repair on some problem of understanding it is not a given that "the repetition is … an exact reproduction of the word in the preceding trouble source turn" (Lilja 2014: 104). Producing an edited version of (some of) the prior turn may in fact be a practice L2 speakers can draw on to index understanding issues (ibid.). This practice is specifically not limited to unknown, new or complex vocabulary, but may be employed for any "elements that are central to the contents of the trouble source turn and have to be understood to be able to continue the conversation" (ibid.: 106). That Lora draws on try-marking further indicates that she is requesting confirmation of some candidate rather than engaging in other-correction, a type of repair which presupposes understanding of the trouble-source turn, and the ability to claim higher epistemic authority on the matter at hand

---

[35] On request by one of the participants involved, the transcript of the data extract (Extract 27, SSL_200217_2, 5:40-5:50) is not included here.

120

(Kendrick 2015: 177). In fact, since Lora is a learner of English, it is possible that she produces 'boring' as the item that she would need to see in the place of Barbara's descriptor in order to be able to make sense of her utterance, accounting for a possibility that 'bored' as used by Barbara might express a different meaning entirely. The change-of-state token'ah ja/oh yeah' which Lora produces after Barbara's self-repair (a confirmatory repeat of Lora's candidate) indicates that she has now achieved full understanding of Barbara's assessment, and further supports the notion that Lora was designing her turn as an understanding check (Heritage 1984a: 318-320; see also Couper-Kuhlen & Selting 2018: 174). This instance mirrors cases discussed by Lilja (2014: 104).

The case of intermediary learners' OIOR is to be found in one of the 7th-graders' role-plays (see Extract 28). Close to the beginning of the role-play, both Tim and Arne have produced their first turns. Arne just proposed that they watch a trampolining championship, and then explicitly yielded the turn. He then takes issue with a lexical item used by Tim in the course of his response (line 06).

```
Extract 28: german versus england (SSL_191108_4, 3:25-3:47)
01   Tim:   ähm: °h     ▫     (1.4)    ▫
     tim:   >>gazing at notes-->
     tim:              ▫closes lips ▫opens mouth
     arn:   >>gazes at Tim-->
02   Arn:   ((lau[ghs))$      ]
03   Tim:        [((lau$ghs))] °h we: (.) +can (.) watch: (-)
     tim:                                 +slight head-tilt
                                           left-->
     arn:            $withdraws gaze from Tim-->>
            uh +FOOTball,
               +
04          *~°h ähm:~  *because (0.4) öh (0.7)
            *gazes away *lowers gaze in steps
             from notes
             ~lowers
              notes  ~
            ähm:*_((click)) ~  (.)  ~ world championship (0.6)
               *gazes at notes-->
                        ~raises
                         notes  ~
```

```
                    ähm: (0.4) play GER~man *  versus     *    ~
                                           *turns head  *gazes at
                                            and gaze to  A's notes-->
                                            Arne
                                   ~lowers and turns notes~
                    ENGland;_h°
05                  (0.6)
06 → Arn:           <<p> great *BRItain;>=
   tim:                        *gazes at Arne-->>
07   Tim:           [((laughs))]
08   Arn:           [=<<:)> °h>]
```

Tim, who draws very heavily on Arne's prior talk for his own turn's design and structure (see section 5.4 for further discussion), first proposes that during their TV night, they watch a football match (line 03). He then starts arguing in favour of that proposal by bringing up a world championship currently running (line 04), adding that the match in question will be between the German and English teams. Subsequently, Arne carries out OIOR on Tim's use of ENGland by producing a replacement (great BRItain, line 06). Considering that after his correction, Arne briefly shows and quickly suppresses a smirk, his other-initiation of repair clearly displays a claim of superior lexical knowledge, rather than that he encountered a problem in hearing or understanding that needs to be dealt with. Tim does not provide any indication that he considers his lexical choice to be problematic, and both repair initiation and repair operation are clearly carried out by Arne.

While cases of both OISR and OIOR can be found both in my beginner-level and intermediary-level data, I did not find any instances of other-initiated repair within my advanced-level learners' data set. SISR and SIOR, however, can be found in all three collections.

The lack of OIR in my advanced-level data marks the clearest difference between my learner groups in terms of the occurrence of repair types. This absence is in line with previous CA-SLA findings inasmuch as it fits with the observation that as learners progress through levels, they tend to increasingly rely on self-initiated repair (e.g. Hellermann 2009: 121-122; Siegel 2013: 99). However, it must also be noted that OIR is exceedingly rare in my other data sets as well, and that such cases thus constitute exceptions in general (see Table 1). This contrasts with previous research, which has

reported on the common occurrence of other-initiation of repair and other-repair in lower-level learners' talk (Hellermann 2011: 152; Siegel 2013: 99). Therefore, even though there is a (partial) compatibility with previous findings, I am hesitant to claim a clear developmental trajectory based on my data.

Table 1: Repair types across learner levels

	beginner level (n = 27)	intermediary level (n = 62)	advanced level (n = 31)
SISR	21 (78 %)	59 (95 %)	26 (84 %)
SIOR	3 (11 %)	1 (<2 %)	5 (16 %)
OISR	1 (4 %)	1 (<2 %)	-
OIOR	2 (7 %)	1 (<2 %)	-

At this point, the reader interested in clearer developmental trajectories may therefore want to jump ahead to section 5.1.3, as in section 5.1.2.2, I will present my hypothesis on why my data shows these inconsistencies with, or at least does not clearly support, prior research.

5.1.2.2 Other-initiation of Repair as the Deviant Case

One possible explanation for these findings, in particular the overall sparseness of OIR in my collection, may be found in the sampling: The overwhelming predominance of SI(S)R could be an incidental outcome of the restricted number of learners whose cases are included in my collection, and thus of the nature of this project as a pilot study (see section 4.2.2). Next to sampling, however, my data also indicates another possible explanation, providing an argument for the suggestion that in my collection, instances of OIR may in fact constitute a type of *deviant case*.

For one, it is likely that the *types of task* my learners are engaged in may have at least some impact on the repair types that can be expected to occur. This is most straightforwardly relevant for the beginner-level data: As I noted in section 4.1, the novice learners often carry out tasks that are partially to fully pre-scripted, requiring them to 'fill in' single words or phrases into an existing syntactic structure. Such is the case for Extract 19, which I partly reproduce here as Extract 19'.

Extract 19': red jacket (QUA-LiS NRW 03.3, 2:54-3:05)

```
05    Bea:    §m_hm the MAN? (0.9)
              §looks at picture puzzle-->
06            is wear<<laughing>ing>
07    Gia:    ((laughs))
  →   Bea:    °h re:d (.) § (1.6)
                          §looks at poster-->
08    Gia:    YES?
09  → Bea:    ä:hm: §(0.8) red JAcket?
                   §turns gaze to picture puzzle-->>
```

As I wrote in the previous section, Bea very clearly follows the script provided by a task card available at the station. To do so, she needs to choose one of several alternative referential expressions ('A man/boy/woman/girl'), and produce a colour adjective and a noun denoting an article of clothing.

As the beginner-level learners are often engaged in such tasks, it is not surprising that what they usually struggle with is providing a next-due item, that is, that they often need to search for a word (see also section 5.2). For this kind of speaking trouble, SIR appears to be the (only) expectable option. This may help explain the high frequency of this type of repair initiation within the novice learners' data.

Furthermore, it is not just that my novice learners are very likely to engage in searches for a lexical item due next, but that the words required to complete the scripts commonly are part of a very limited set of vocabulary items that the recorded session appears to be designed to practice, and which therefore presumably are familiar to all participants involved. The latter may not only explain why, following SIR, the novice learners generally are able to successfully accomplish self-repair and thus produce SISR, but it may also account for why *the beginners rarely other-initiate repair*: It appears unlikely for them to encounter the understanding issues which commonly necessitate OIR (see section 3.1.1.3), and they may be able to compensate for hearing trouble precisely because there is only a limited set of options to draw on to fill in any given slot in a script. Indeed, when the beginners *do* produce other-initiated repair, this is never due to trouble with understanding a co-participant's talk, and only one instance occurs in which a learner other-initiates repair in response to having encountered a *hearing* issue. This case is contained in Extract 25 (reproduced here as Extract 25'). I argued in the previous section that Nico can be shown to respond to hearing trouble occasioned by background noise.

124

Extract 25': socks number three (QUA-LiS NRW 03.4, 1:10-1:18)

```
01   Mar:   NIco;=
02          =(öhm) have you go::t (socks)
             num:be::r (0.3) THREE?
03 → Nic:   SOCKS?
04   Mar:   ((no[ds)) ]
05   Nic:       [yes i] HAVE;
```

Apart from this case, my novice learners do not use OIR to indicate their own problems with a prior turn. Rather, they do so to then carry out other-repair, in order to respond to some issue the *current speaker* is (or appears to be) facing as evidenced by that current speaker's (lack of) talk. Such is the case in Extract 26 I discussed in the previous section, and reproduce here. As I showed, Fred carries out OIOR on Emil's problematic word choice. However, he does so in a very notable context, namely after a previous discussion (lines 01-04) about the type of bird which Emil is aiming to talk about.

Extract 26': the eagle (QUA-LiS NRW 08.3.3, 3:34-3:40)

```
01   Fre:   <<Ger> ähm das is der> (0.2) [EAgle;]
                          this is the eagle
02   Emi:                              [   PEr]egrine;
03          (.)
04   Fre:   <<Ger> nein (die)> EAgle;
                     no (the) eagle
05          (0.3)
06   Emi:   de peree (0.2)
     fre:   >>looks at handout-->
07          [uh]
08 → Fre:   [$d]e EAgle;
             $looks at Emil-->
09   Emi:   te [ea ]
10   Fre:      $[THE]   eag$le;
               $closes eyes $looks at handout-->>
```

The OIOR of the word choice (line 08) is unmitigated, perhaps because of this previous exchange. At this point, to leave Emil's lexical design unrepaired would render the immediately prior talk moot. This may explain why Fred uses OIOR despite the overall predominance of SISR. That the other-repair is done in an unmitigated way orients precisely to the nature of the correction as a non-first attempt at repair.

In sum, other-initiation of repair in my novice learners' data is occasioned by either incidental issues, such as background noise inhibiting the audibility of an utterance, or by the current speaker deviating from expectation in some way (e.g., by not orienting to the results of a previous exchange). That there are no cases in which a beginner other-initiates repair to deal with an own understanding problem, and only a single case of OIR in response to hearing trouble, may relate to the task types these learners are mostly engaged in. With novice learners commonly being required to produce already-known lexical material, it appears unlikely that understanding problems due to an unfamiliarity with the items produced would occur. Furthermore, hearing issues might well be compensatable through a restricted set of possible 'hearables'. Thus, beginners tend to predominantly indicate trouble of speaking – that they generally are able to resolve this type of issue through SISR may be due to the aforementioned context. In all, task type may significantly impact how likely the different types of repair are to occur. The infrequency of SIOR, OISR and OIOR within my novice-level data therefore might not (only) be attributable to the level of the learners (but cf. Filipi & Barraja-Rohan 2015: 236-239), and thus may not be generally representative of the repair work of learners at this stage of language learning. To test this, learners should be presented with tasks that require them to produce less pre-prepared utterances, to see if they carry out OIR more frequently than they do in my current data.

The type of task does not account for the general sparsity of other-initiated repair in the intermediary-level learners' data, however. Although the role-plays they engage in are based on a detailed role-card including 'useful language', and the participants were provided with some time for preparation, the overall format does not allow them to rely to any significant extent on pre-prepared talk, and thus does not inherently favour the occurrence of the kinds of speaking problems which in the novice-learners' data make self-initiated (self-) repair highly expectable. The role-play task also does not forestall the potential for understanding trouble in the same way that the beginner-level learner tasks may have. Indeed, there are quite a number of instances in which the understandability of the talk being produced is clearly limited (though, notably, the recording context does significantly lower the potential for hearing issues due to background noise). That other-initiation of repair does not occur even then may at least in

part be attributable to *task design*. To explain my reasoning, I will discuss one straight-forward case of a turn which is less-than-fully intelligible on its own merits, but does not occasion other-initiation of repair (Extract 29).

According to the role-cards provided to these learners, Tim's main objective is to try and convince his partner to agree to watch a football match during a fictitious TV night, while Arne is supposed to argue in favour of finding a trampolining competition to watch. Just prior to the excerpt provided here, the researcher (Res) had finished conducting a warm-up with the learners. She then indicated the end of the first part of the recording, which led to a brief discussion about who of the learners would need to start the role-play. The researcher, in accordance with the information provided on the role-cards, selects Tim as the first speaker (lines 01-02), who then struggles producing his very first turn (line 03-07). As I will show throughout the subsequent sections, this is just one of several pieces of evidence allowing the observation that overall, Tim is the weakest learner of the intermediary-level cohort.

Extract 29: what's watching (SSL_191108_4, 2:47-3:18)

```
01   Res:    TIM.
02           [<<p> needs to START;>]
03   Tim:    [        ä:hm:      ] ((licks his lips))
             <<sighing> hh°>
  →          ((click))_°h ä:hm: (1.7) w:ha:t (0.5) ähm a tee
  →          VEE night?_h°
04 →         ähm (1.0) and FRIENDS,_((laughs))
05 →         °h ähm: ((click)) (2.3) <<(Ger)> JA.>
                                          yes
06   Arn:    (1.3) ((laughs softly))
07 → Tim:    ((laughs)) what's <<:-)> WATCHing,> ((smiles))
08   Arn:    °h we can wa::tch ä::hm: (0.5) TRAMpolining,=
```

Tim's trouble in producing his turn is visible in, for instance, his abandonment of one of his attempts to produce a TCU (line 05). At this point, he tries to yield the turn, but ends up producing further talk. After line 07, speaker change finally occurs, even though Tim still has not produced anything that can be easily analysed as a possibly complete action. Arne goes on to provide a response to Tim's talk (line 08), displaying at least some understanding of it. That he was able to do so very likely can be attributed to the design of the role-cards. They contain not only detailed instructions on what each learner's own objectives are supposed to be, but also a summary of their partners'

goals, and a description of the overall situation, namely that the participants are having a discussion about a get-together involving watching TV with some friends, and are supposed to agree on what to watch. Knowing about their partners' tasks in advance, as well as having insight into the details of what they are supposed to argue for, may negate the learners' need to rely on recognisable turn design to understand which actions their co-participants' utterances are meant to accomplish, as they would have to do in a real-life equivalent of the situation the role-play is meant to simulate.

In sum, task design could also influence how likely OIR is to occur. That it is the exception in my intermediary-level data may be related to the availability of interaction-external information, rendering active pursuit of intersubjectivity unnecessary. It remains to be tested whether a different role-play design (i.e., role-cards which only provide learners with information on their own character's objectives, and thus require interactional negotiation of understanding) would afford more frequent occurrences of OIR.

5.1.2.3 Summary

The results of my analysis only barely allow the inference that – in line with prior research – as they progress through levels, learners may come to increasingly rely on SI(S)R. However, cases of SISR are in the vast majority across all my learner groups, most obviously so in the intermediary-level data, while all other repair types are very rare. This does not seem to be mere coincidence, nor does it appear to be a robust pattern beyond my data that OIR constitutes the deviant case. A lesson to be learnt here is that both task type and task design may have an impact on the participants' need to collaborate with each other in order to achieve and maintain mutual understanding, and therefore on how likely it is that they will draw on other-initiated repair in particular. The recording situation itself, of course, also may have had an impact on my learners' behaviour in terms of the repair types (most frequently) produced, with particular effects on the intermediary-level learners' use of other-initiated repair. These learners were explicitly tasked to interact with each other in English, which observably made the identity as EFL learners relevant to the participants themselves (see section 5.3). Additionally, the learners were aware that they were being recorded. Given this context, the participants may have hesitated to other-initiate repair out of worry that by admitting to any trouble in hearing or understanding, they could be perceived as lacking in language competence (not only, but also, in comparison to their

co-participants; e.g. Siegel 2013: 101). This may further explain their reliance on available interaction-external material as a sense-making resource, and presents a clear challenge for test task design, and language teaching in general. To ensure that learners provide as much insight into their repair skills as possible when tested, not only would a low-pressure setting be helpful, but it is also relevant to generally reduce inhibition against engaging in (other-initiated) repair by creating an awareness in the learners that repair constitutes a skill in and of itself, rather than an index for lack of language proficiency – their own, or their partners'.

In all, I maintain that further research may yet reveal systematic differences between learner levels in terms of both the repair types which occur, and the proportions of those repair types. What I can posit based on my current analyses, however, is that learners at different levels vary in their orientation to the generic repair preferences. I will turn to my observations on this aspect next.

5.1.3 Learners' Orientation to the Preferences for Self-Initiation and Self-Repair

It may be argued that the overwhelming predominance of SISR in my data already clearly displays preferences for self-initiation and self-repair (see section 3.1.1.2). However, considering my previous observations that the overall rarity of instances of OIR and other-repair in my collection may be attributed to contextual aspects, more reliable evidence as to whether my learners orient to the generic repair preferences can be found in the manner in which they go about producing the *dispreferred* options. As such, I rely on a detailed qualitative investigation of cases of OIR and other-repair for insight as to whether, and to which extent, learners treat them as dispreferred, and thus distinctly display orientation to the preferences for SIR over OIR, and for self-repair over other-repair. I will show that only learners at higher levels start trying to avoid OIR, thus clearly orienting to the preference for SIR. Regarding my learners' orientation to the preference for self-repair over other-repair, a similar development cannot be observed.

5.1.3.1 Learners' Orientation to the Preference for Self-Initiation

I have noted in section 5.1.2 that in my data, repair is initiated far more frequently by self than by other, and that the relative lack of OIR may be connected to the tasks my learners are engaged in, and to how these tasks are designed. Thus, the predominance of SIR does not necessarily show that the learners clearly orient to the preference for

self-initiation over other-initiation. What is more telling in that regard is that only at higher learner-level is other-initiation of repair treated as the *dispreferred* option. At novice level, learners do not do so: For one, their instances of OIR occur without mitigation, as I have noted for Extract 26', reproduced here as Extract 26''.

Extract 26'': the eagle (QUA-LiS NRW 08.3.3, 3:34-3:40)

```
01   Fre:    <<Ger> ähm das is der> (0.2) [EAgle;]
                       this is the eagle
02   Emi:                                    [    PEr]egrine;
03           (.)
04   Fre:    <<Ger> nein (die)> EAgle;
                    no (the) eagle
05           (0.3)
06   Emi:    de peree (0.2)
     fre:    >>looks at handout-->
07           [uh]
08 → Fre:    [§d]e EAgle;
              $looks at Emil-->
09   Emi:    te [ea ]
10   Fre:       $[THE]    eag§le;
                 $closes eyes $looks at handout-->>
```

Fred produces his correction of Emil's talk (line 08) not because he is facing an understanding problem, but because Emil does not take up Fred's previous correction (line 04). There is some evidence that Emil may have noticed the issue himself, and might have been able to self-correct: He cuts off his unfinished TCU and produces a hesitation marker after a brief unfilled pause (lines 06-07). However, Fred's incoming forestalls this possibility. Fred does not employ any of the design features commonly associated with dispreferred actions (Pomerantz 1984: 70-74), neither mitigating nor delaying his repair initiation. In short, his turn design does not display any orientation to the preference for SIR over OIR.

Some minor orientation to that preference may be displayed by Dana in the following case (Extract 30). Dana and her partner, Dave, are currently at a work station requiring them to act out a short dialogue of a sales encounter in a camping store. At an earlier point in the session, the class had practiced the dialogue together. The script is provided on a poster behind Dana, who is acting as the salesperson. Once again, the learners only have to fill in a few lexical items, such as which item the 'buyer' (Dave) would like to purchase, and the price of that item, which is indicated on a small price

130

tag. Prior to the relevant extract, Dave expressed an interest in a water bottle, and then asked for its price. Dana provides the requested information in line 01.

Extract 30: ja ich weiß (QUA-LiS NRW 02.4, 1:05-1:15)

```
01    Dan:   elev&en DOLLars;§*
      dan:       &moves back to side of desk
      dan:                   §looks at poster-->
      dav:   >>looks at table *looks at poster-->
02 →  Dav:   (1.4)
03 →         $§ (0.7)
      dan:   $points at poster
      dan:    §moves gaze to Dave, then back to poster-->
04 →         $ (.) § (1.1)
      dan:   $points at poster
      dan:       §gazes at Dave-->
05    Dan:   §§$<<(Ger)> (du  bi§st jetzt an$ der reihe)>
                             it is your turn
      dan:   §looks at poster  §turns gaze to Dave-->
      dan:    $points at poster            $
06    Dav:   +<<Ger, whispering> (ja ich WEISS-)>+
                               yes I know
      dav:   +   slightly nods                  +
07           (0.7)
08    Dan:   @i'll TAKE it;
      dan:   @head moves toward Dave-->>
09    Dav:   i'll TA*KE (i§t);
      dav:        *looks at Dana-->>
      dan:           §looks at poster-->>
```

After she does so, a lapse in talk ensues (Sacks et al. 1974: 714). It may be attributed to Dave in particular, since the script clearly indicates that it is his turn next. Dana's orientation towards the poster directly after she finishes her turn can likely be considered preparation for her own next turn: She reminds herself of the relevant line, or even may be getting ready to read it out once Dave has finished. Her attempts to other-initiate repair only start after more than one second of delay on Dave's side (line 02): She begins pointing at the poster, and audibly taps on it the second time she does so (lines 03-04), simultaneously gazing back and forth between Dave and the poster. This appears to be designed to help Dave find the appropriate line on the script, which he would only need to read out to successfully complete his turn. It is notable, though,

that when Dana first starts pointing at the poster, and therefore initiates repair, she does so without first looking at Dave. In that way, this case is similar to Extract 26'': Both Dana and Fred neglect to check for any indication that their partners may be about to deal with the trouble themselves. Beyond the fact that Dana does not immediately other-initiate repair, but only does so after a lapse in talk, she does not treat her other-initiation as a dispreferred action, or at least the less preferred option. Thus, she does not clearly orient to the preference for SIR.

Learners at intermediary level do not necessarily display clear orientation to the preference for self- over other-initiation of repair either, as Extract 28', reproduced and revised from Extract 28 above, shows.

Extract 28': german versus england (SSL_191108_4, 3:25-3:47)

```
01   Tim:   ähm: °h (1.4)
     arn:   >>gazes at Tim-->
02   Arn:   ((lau[ghs))$      ]
03   Tim:        [((lau$ghs))] °h we: (.) can (.) watch: (-)
     arn:              $withdraws gaze from Tim-->>
            uh FOOTball,
04          °h ähm: because (0.4) öh (0.7)
            ähm:_((click)) (.) world championship (0.6)
            ähm: (0.4) play GERman versus ENGland;_h°
05          (0.6)
06 → Arn:   <<p> great BRItain;>=
07   Tim:   [((laughs))]
08   Arn:   [=<<:)> °h>]
```

As I noted before, there is clear evidence, such as Arne's brief smirk, that his other-correction (line 06) does not follow from any problems in hearing or understanding. Some minor orientation to the dispreferred nature of OIOR may be visible in the fairly low volume with which the correction is produced, and the noticeable pause preceding it (line 05). However, once again the learner initiating repair (Arne) withholds his gaze from the speaker of the trouble-source turn (Tim) prior to the repair initiation. Thus, Arne cannot be seen to provide Tim with a notable opportunity to self-initiate repair.

The other case of OIR in the intermediary learners' data set, however, does display very clear orientation to the preference for self-initiation of repair. Notably, it is produced by Lora, a more advanced intermediary-level learner (i.e., one of the 9th-graders;

see section 4.1). Returning to my previous discussion of Extract 27 (section 5.1.2.1), it can be observed that although Lora does eventually other-initiate repair on the lexical item Barbara used, she keeps her gaze on her partner throughout the preceding lapse, assumedly extending the transition space to offer additional opportunities for Barbara to self-initiate repair. Further evidence that Lora attempts to avoid dispreferred repair practices is visible in the work that she does to make her turn hearable as a candidate understanding initiating repair rather than as an explicit correction. She produces a partial (modified) repeat of the trouble-source turn, using try-marking to index that she is requesting confirmation of a candidate, rather than claiming full understanding of the trouble-source turn. Her change-of-state token following Barbara's confirming re-peat of the candidate further indexes that Lora has only accomplished full understanding of the prior turn upon Barbara's confirmation, retrospectively reconfirming that her modified repeat was designedly an understanding check[36] (Heritage 1984a: 318-320; see also Couper-Kuhlen & Selting 2018: 174; Lilja 2014: 104).

Overall, then, at the intermediary level, learners start clearly displaying orientation to the dispreferred nature of OIR, and thus to the preference for SIR. No cases of OIR are available in my advanced-level learners' data set, something which at the very least does not contradict the emerging developmental trajectory. However, further research must investigate whether similar clear displays of orientation may be found at that level, too.

5.1.3.2 Learners' Orientation to the Preference for Self-Repair

As regards repair proper, there is evidence to be found across all data sets that my learners orient to other-repair as the dispreferred option: They can be seen to explicitly attempt to avoid having to carry out other-repair (Extract 30'), to monitor the trouble-source turn speaker to ascertain the need for assistance in lieu of incipient self-repair (Extracts 22', 24), and to orient to the dispreferred nature of other-repair in their turn design (Extract 28').

---

[36] Of course, it is feasible that Lora has no problem of understanding at all. Even if this is the case, however, she still clearly *designs* her turn in such a way that it is at least ambiguous whether she is doing other-initiation only, or carrying out OIOR. She therefore displays clear orientation to the dispre-ferred nature of other-repair, and shows her ability to simultaneously work on an issue of understanding, and deal with a secondary issue: Maintaining social solidarity.

An attempt at avoiding the need for other-repair is produced by Dana, a beginner-level learner, in Extract 30 (reproduced here as Extract 30'). While she does eventually produce the talk due next (line 08), she first carries out several attempts at providing Dave with the means to do so himself.

Extract 30': ja ich weiß (QUA-LiS NRW 02.4, 1:06-1:15)

```
02   Dav:   (1.4)
03          $$ (0.7)
     dan:   $points at poster
     dan:    $moves gaze to Dave, then back to poster-->
04          $ (.) $ (1.1)
     dan:   $points at poster
     dan:         $gazes at Dave-->
05   Dan:   $$<<(Ger)> (du  bi$st jetzt an$ der reihe)37>
                         it is your turn
     dan:   $looks at poster  $turns gaze to Dave-->
     dan:    $points at poster               $
06   Dav:   +<<Ger, whispering> (ja ich WEISS-)>+
                                    yes I know
     dav:   +   slightly nods                   +
07          (0.7)
08 → Dan:   @i'll TAKE it;
     dan:   @head moves toward Dave-->>
09   Dav:   i'll TA*KE (i$t);
     dav:         *looks at Dana-->>
     dan:               $looks at poster-->>
```

At first, Dana treats the absence of Dave's next turn as a result of a problem of seeing on Dave's part: She points at the poster multiple times (lines 03-04) to help him find the appropriate line on the script. When there is no uptake by Dave, Dana repeats the gesture, and additionally produces a metacomment (line 05). Her reminder of what he needs to do at this point is rejected as unnecessary in line 06. It is only after yet more delay (line 07) that Dana straightforwardly produces the next line of the script (line 08), which Dave then repeats (line 09), finally resuming progressivity. Dana's clear orientation to the dispreferred nature of other-repair is observable in her recurrent attempts at enabling Dave to produce the next-due talk himself.

---

[37] Alternatively, Dana's first words may be 'du musst' (i.e., 'you have to'), with the rest of her TCU remaining incomprehensible.

Further evidence that even novice-level learners orient to the generic preference for self-repair is to be found with their cases of self-initiated other-repair. If those do not result from explicit requests for assistance by the trouble-source turn speaker, the beginners clearly monitor the ongoing talk for indication that self-repair may (not) be forthcoming. Even when they observably have access to the solution needed, co-participating learners provide the current speaker with plenty of opportunity to resolve the trouble. This is illustrated by Extract 22', which I analysed in detail in section 5.1.2.1.

```
Extract 22': four legs (QUA-LiS NRW 04.4, 1:39-1:49)
01   Fre:   ähm::_((click)) (1.0) it's* f:::+our   + * (.) f
            >>looks at own paper      *looks up      *looks at
                                        at girl        paper-->
                                           +slight
                                            nod   +

            +ä*ö:h +     *uhm u_four ▫   (0.5)    ▫
              *looks at *looks at paper-->
               girl
            +shakes
             head   +
                                      ▫opens mouth▫
02 → Gre:   LEGS? *
      fre:         *looks at Greta-->
03   Fre:   L+*EGS?+
              *looks at paper-->>
            +nods +
```

I have shown before that Freya self-initiates repair to deal with a problem of speaking, but does not produce the candidate continuation herself. Instead, it is Greta who provides a suggestion. It is important to note that while Greta's candidate had not been requested by Freya, either verbally or with bodily-visual means (i.e., through Freya gazing toward Greta; see Goodwin & Goodwin 1986: 63), she only produces it after Freya had already struggled with the search for quite a time, when the preference for progressivity arguably starts outweighing the preference for self-repair.

As regards the intermediary-level data, I have noted in my analysis of Extract 28' above (section 5.1.3.1) that while Arne's correction is non-mitigated, there may be some (minor) display of orientation to the dispreferred nature of other-repair visible in the turn-design: The correction is delivered in fairly low volume. Furthermore, Arne

can be seen to visibly suppress the smirk appearing after he completes his turn, thus carrying out some bodily-visual mitigation at least.

Similar to what I observed in the beginner-level data, at advanced level, a learner may also provide a candidate solution for a problem their co-participant has initiated repair on. However, this only occurs when there already has been a notable halt, and the learner has ascertained through close monitoring of the trouble-source turn speaker that self-repair is unlikely to be forthcoming soon. In Extract 24 (reproduced as Extract 24' below), Lisbeth can be seen to orient to subtle cues indicating ongoing trouble to ascertain the appositeness of producing other-repair.

Extract 24': it raised the attention (CeLE-P, ELF_02, 18:52-18:59)

```
01   Zah:   (i'm no) (.) | not sure
02          (did they) change m§uch °h
     bas:   >>looks at Zahra   §gaze moves right-->
     bas:   >>fiddles with pen-->>
     lis:   >>looks down-->
     lis:   >>LH props up head-->
03   Bas:   ¤yeah=it raise+~¤d_|_§u:h+¤m+~ (-)
     bas:                    §looks at pen-->
     lis:   ¤smiles        ¤opens and
                            closes mt¤
     lis:                  +lifts       +nods-->
                            head      +
     lis:                 ~RH to glass
                            LH folds in ~
04          it it rai+*sed (.)
     lis:            +turns head to Bastien,
                      continues nodding-->
     lis:             *looks at Bastien-->
            th[e: at@§TE][Ntio*+n;]
05 → Lis:   [  aWA@§RE][ness*+. ]
06   Zah:            [aWAR*+En][e(ss-)]
     lis:               *gaze moves down and right-->>
     lis:                +head turns right,
                          continues nodding-->
     bas:           @turns head to Lisbeth, nods-->
     bas:            §looks at Lisbeth-->
```

136

```
07   Bas:                    [ aWARE]ness;@$+
     bas:                            @straightens
                                     head-->>
     bas:                            $looks at
                                     pen-->>
     lis:                            +nods-->>
```

Before starting his search, Bastien had already withdrawn his gaze from his co-partic-
ipants. Upon producing his hesitation marker (line 03), however, he shifts his gaze to
the pen in his hand. While he does not draw on a prototypical thinking face (Couper-
Kuhlen & Selting 2018: 122), Bastien clearly averts his gaze to indicate his ongoing
attempt at self-repair. He goes on to restart his TCU in line 04. At this point, Bastien
could feasibly go on to produce a candidate. In fact, Lisbeth observably turns her gaze
toward Bastien when he restarts his TCU, likely to ascertain whether he has resolved
the issue. She may take his continued gaze aversion as an indication that the restart has
not been done to project an immediately forthcoming solution, but to further hold the
turn. This accounts for her production of a candidate solution (line 05). Even though
Bastien does produce his own candidate, he noticeably does not show any indication
that he considers Lisbeth's incoming problematic – rather, he ratifies the fit of her
candidate through his repeat of it in line 07. Thus, he confirms that Lisbeth has acted
in line with the preference for self- over other-repair.

In sum, there is evidence in my data that even at novice level, the learners display
clear orientation to the generic preference for self-repair. Relevant phenomena can be
observed across all my data sets – thus, there are no straightforward differentiating
patterns in my data.

5.1.4 Summary

There are several main observations I have presented in this chapter, although not all
of them lend themselves to the derivation of readily-apparent criteria for distinguishing
between general learner levels or even learners of the same group. Based on my data,
I observed that

- clear displays of orientation to the preference for SIR over OIR do not occur in
  the lower-level collections, but emerge at higher-intermediary level. The be-
  ginner-level learners recurrently do not provide their co-participants with space

to self-initiate repair where this would have been possible, nor do they otherwise orient to OIR as a dispreferred action. The same largely applies to the case of other-initiation within the 7th-graders' data. Only with the 9th-grader learners, who arguably are at least at a slightly higher intermediary level, there is the first plain attempt to maximise the transition space to avoid the need to other-initiate repair. In clearly working to provide the trouble-source turn speaker with sufficient opportunity to recognise, and deal with, the issue herself, the learner shows awareness of, and ability to act in accordance with, the fact that repair constitutes an interactional accomplishment, indicating more sophisticated repair skills than the learners at lower levels. That the advanced-level learners do not other-initiate repair at all may indicate that OIR gradually diminishes in frequency as learner levels increase. However, further research will need to show whether clear displays of orientation to the dispreferred nature of OIR can be found at that level as well.

- clear displays of orientation to the preference for self- over other-repair are observable from the beginner level onwards. When the novices carry out other-repair in response to self-initiation, they do so either after the trouble-source turn speaker explicitly recruits assistance, or when close monitoring indicates that the current speaker is not about to resolve the issue at hand even after there had already been a notable halt, and thus room for self-repair. Across levels, there is no straightforward pattern: The only case of other-repair in which there is little to no display of orientation to its dispreferred nature is produced by a (lower-level) intermediary-level learner. In another instance from the (higher-level) intermediary data, a learner invests extensive interactional work to make her action recognisable as OIR rather than OIOR.

At present, it is my observations on how learners orient to the generic preference for SIR that most straightforwardly suggest a candidate criterial feature for ascertaining learners' L2 repair skills (see Figure 5). Thus, the occurrence of *clear displays of orientation to the preference for self- over other-initiation of repair*, in particular in terms of turn-design, may be posited as a criterion suitable for differentiating between learner levels.

	beginner	intermediary	advanced
clear displays of orientation to preference for SIR over OIR			
clear displays of orientation to preference for SR over OR			

Figure 5. Clear displays of orientation to repair preferences across learner levels

As regards the repair types which occur, and their proportions, my data does not reveal any significant differences between learner levels. Contrasting with prior CA-SLA findings, OIR (self- or other-completed) only makes up a small portion of repair cases at each level, if it occurs at all. SISR is the by far most commonly occurring type of repair in all my data sets. Even considering each type of repair on its own, no clear changes in their use are observable across learner levels. I have made note in my discussion that this may, at least in part, be attributable to

a) the *task types* the learners tend to engage in: The beginner-level exercises at the same time make SISR expectable and lower the likelihood of OIR, while there are no such restrictions with the tasks given to the intermediary and advanced-level learners;

b) the *design of the tasks*, including scaffolding material provided to the learners: Even if the task at hand allows for (fairly) spontaneous talk, and therefore a broader variety of trouble sources, OIR may still be rendered unnecessary if mutual understanding does not depend on participants' recognisable turn-design. Being provided with extensive information on role-cards, my intermediary-level learners have access to an interaction-external set of resources for sense-making, forestalling threats to intersubjectivity and consequently the need to deal with problems of understanding which might otherwise necessitate repair.

This has clear methodological implications for studies such as this one, which try to identify candidate criterial features for the assessment of L2 learners' repair skills, as well as (eventually) for L2 IC testing practice. I return to my earlier argument that since the context has such a clear impact on the occurrence and proportions of repair types, further research is needed to ascertain possible systematic differences between learner levels in terms of those aspects. In particular, data is needed which a) is comparable in terms of the type of activity the learners are engaged in and b) specifically

provides insight into how learners conduct themselves when they are required to spontaneously collaborate with each other to achieve and maintain mutual understanding. Such data would better allow for the occurrence of OIR instead of inherently favouring SISR. Should the future research I recommend here reveal candidate criterial features related to the occurrence, and proportions, of repair types, this would clearly underline that the same kind of data should be used when assessing repair skills.

Future research should further explore whether the criterial feature posited above may also be usable for the differentiation between learners of one cohort. For the present study, the low number of non-SISR cases in my data prevents such an investigation. An expansion of the data as I propose above should also be helpful for resolving this open issue, and may even reveal additional candidate criterial features.

In this section, I set out to explore my data with regard to the types of repair my learners engage in. While this revealed that cases of SISR are in the vast majority across all my data sets, I have shown that the general sparseness of OIR in my data must be treated with caution, and cannot be taken as conclusive evidence against previous findings on the relative proportions of repair types within (lower-level) learners' talk. My analyses also provided interesting insight into learners' displays of orientation to general repair preferences. While even at beginner-level, learners clearly orient to the dispreferred nature of other-repair, it is only the learners at higher intermediary level who start clearly displaying similar orientation to the preference for SIR over OIR. This observation allowed me to posit a first candidate criterial feature for the assessment of L2 repair skills.

Having thus far focused on the repair instance as a whole, I will now turn to the first step of the repair process, repair initiation, and focus on the repair initiation practices most prevalent in my data: Searching and bricolage.

5.2 Practices of Repair Initiation: Searches and Bricolage

5.2.1 'Searching' and Bricolage: Preliminary Remarks on Terminology and Characteristic Features

One of the repair initiation practices most commonly utilised by the language learners in my data is *searching*. This is in line with previous research, which has noted this phenomenon to be ubiquitous in both L1 and L2 interaction (e.g. Brouwer 2003: 536-537; Hayashi 2003: 135; Mori & Hasegawa 2009: 71; Pekarek Doehler & Berger 2019: 53). Generally considered one of the "behavioral manifestations of cognition" (Mori & Hasegawa 2009: 70), one way in which participants, through their conduct, provide insight into cognitive processes underlying their speech production, searches are thought to display the unavailability of something that would be 'due' next in incipient talk (Schegloff et al. 1977: 363). Quite frequently, the literature utilises the term 'word searches' to refer to the phenomenon at hand. However, this tends to be misleading, given that it indicates undue restriction of the scope of the practice. As early as Schegloff et al. (1977), researchers have noted that what is being searched for need not necessarily be a word at all (:363; see also Gardner 2007: 66), but that participants may even launch "searches on the level of conceptualization" (Auer & Zima 2021: 408). In recognition of this, I will refer to the phenomenon by the more generic term 'search', unless there is clear evidence that what is being searched for at a given moment is indeed a single lexical item.

What makes searches into a distinct repair phenomenon, then, is not the specific nature of the trouble sources which occasion their use, but rather the well-defined set of design features occurring TCU-medially (e.g. Brouwer 2003: 537; Koshik & Seo 2012: 168; Schegloff et al. 1977: 363). Searches characteristically entail the temporary suspension of an ongoing unit at a point at which its further trajectory can be anticipated (e.g. Auer & Zima 2021: 394; Barth-Weingarten 2021: 213; Goodwin & Goodwin 1986: 55). To indicate this temporary suspension, interactants draw on a set of *characteristic cues*, often combining several of them (Auer & Zima 2021: 394). They can be classified into

- verbal cues; this category includes a range of 'speech perturbations' (e.g., sound lengthening, hesitation markers, unfilled pauses, cut-offs), try-marking, self- and other-directed questions, the recycling of (function) words, the use of placeholders, and hints/information on the searchable (e.g. Auer & Zima 2021: 393; Couper-Kuhlen & Selting 2018: 118-121; Goodwin & Goodwin 1986: 55;

Hosoda 2006: 32; Koshik & Seo 2012: 169; Pekarek Doehler & Berger 2019: 54);

- bodily-visual cues; this category includes features such as withdrawing or withholding gaze from co-participants, 'thinking face', 'orientational shifts', various (possibly iconic) gestures, facial expressions such as raising eyebrows and tilting one's head (e.g. Couper-Kuhlen & Selting 2018: 122; Goodwin & Goodwin 1986: 56-57; Hosoda 2006: 32).[38]

One prototypical example of a (word) search, according to this list of characteristic features, can be found in Extract 31. Adam and Zoe, two 4th-graders, are working their way through a series of work stations designed to practice a set of new vocabulary. In this recording, they are engaging in a game: From a box of items, one of the learners is supposed to choose an item to hide in a bag. Their partner then is supposed to identify the item by feeling for its shape.

Extract 31: matches (QUA-LiS NRW 02.8, 0:16-0:24)

```
01   Zoe:   what ~IS it;
     ada:   >>looks at bag-->
     ada:        ~starts feeling bag-->
02   Ada:   *+(--) °hhh
            *turns gaze to the right-->
             +turns head to the right-->
03 →        °hh this is a:*~::            ~
                      *looks up-->
                       ~removes RH from
                       bag, then snaps
                       fingers        ~
   →        öh~m:_hh°* (---)~ (-) ~(0.5)*    ~
             ~shakes RH         ~shakes bag
              index finger ~      slightly  ~
                   *gazes left, then
                     then down-right   *
```

[38] The thinking face, in particular, serves as "visual indication of continued engagement in the word search and … a reason to wait for talk, even though the speaker is silent" (Goodwin & Goodwin 1986: 60). The current speaker can also show that they are still attempting to resolve the search through avoiding sustained eye contact with a co-participant (ibid.: 70-71). To request assistance from a co-participant, on the other hand, participants commonly (re-) direct their gaze at that person (ibid.).

```
→          ~*MATches;       *
           ~points index finger to the left-->>
           *looks at bag *looks at Zoe-->>
```

Once it is his turn, Adam starts producing an identification (`this is a:::`), indicating that he has indeed recognised what is in the bag. However, he then has trouble naming the item, and initiates repair. To do so, he lengthens the article, produces a lengthened hesitation marker (`öhm:`) which he cliticises to a nasal out-breath, and then allows a long unfilled pause to occur. That he is engaged in a search is also displayed through his gaze and other bodily-visual cues: Beginning on the article, Adam withdraws his gaze from the bag, first looking to the right, then letting his gaze wander around until he produces a candidate solution. All along, he avoids making eye contact with Zoe. Furthermore, he performs a variety of gestures with his right hand.

Some additional remarks regarding the list above seem pertinent. First, although (some of the) bodily-visual cues are often included among the more prototypical features of searches, and may suffice on their own to identify an instance of the practice (Goodwin & Goodwin 1986: 59), they are not to be mistaken as *constitutive* (Hosoda 2006: 32[39]) of searches. Furthermore, while (in principle) there are significant similarities between languages in regards to how searching is typically done, it has also been shown that there are "different linguistic practices available to speakers of different languages to deal with what could potentially be a universal contingency, that is, word-finding trouble in ongoing talk-in-interaction" (Hayashi 2003: 134). Therefore, L2 learners can be expected to be familiar with searching as a practice from their L1, but it is not a given that they can simply transfer *how* it is done there. Indeed, as my review of research on (word) searches in L2 talk (sections 5.2.2-5.2.3) will show, the development of an increasingly diverse inventory of (L2-like) search designs can be considered one clear indication of growing L2 IC (e.g. Pekarek Doehler & Berger 2019: 65). Before I move on to that overview, however, I will introduce the second repair initiation practice this chapter focuses on: Bricolage.

Bricolage as a phenomenon has been introduced by Gardner (2007), who notes that L2 learners can be observed to recurrently begin their turns in a halting manner, with

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[39] Further evidence for this point is provided by recent research specifically investigating the role of gaze in 'doing searching': Both Auer & Zima (2021) and Barth-Weingarten (2021) are able to identify cases of word searches solely on the basis of verbal cues.

'broken starts' (:62). Commonly, in such cases, the participants recognisably initiate a turn, but delay its actual start (ibid.: 63) – as the author explains, a difference can be made between *turn-initiation/-beginning*, that is, the indication that a speaker lays claim to the floor, and will be producing the next turn, and *turn-launching/-starting*, which constitutes the actual onset of the turn. It is the latter that learners tend to struggle with, their lack of L2 means (ibid.: 62) resulting in problems with "planning and designing the whole turn" (:63). Consequently, in typical cases of bricolage, a learner will indicate their intention to take a turn by producing initial verbal elements (e.g., hesitation markers, conjunctions; may be recycled), 'vocalizations' (e.g., clearing one's throat, stuttering, voice tremors), speech perturbations (in-breaths, sound stretches) or several of those features in combination (ibid.), and then follow up on this beginning with "a range of turn-retarding elements" (ibid: 69) before initial lexical elements are produced. However, even after the turn has thus been launched, the participant may continue the instance of bricolage throughout large portions of the turn (ibid.): Turn-launching elements can be followed by further delaying devices, including extended unfilled pauses and noticeably low speech rate throughout (part of) the turn (see also p. 63). Overall, bricolage is considered resolved once "the rest of the turn is delivered relatively fluently and smoothly" (ibid.).

As there is significant overlap between searching and bricolage in terms of verbal resources employed, the practices can be distinguished primarily on the basis of where the participants instantiate the halt in progressivity. I noted before that one core characteristic of searches is that they occur TCU-medially – for something to recognisably be a search, an ongoing unit must be suspended at a point where it has progressed far enough that there is some (syntactic) projection already in place. Bricolage, however, refers to the 'broken starts' often produced by language learners, and therefore occurs at the very beginning of a unit-of-talk, when no specific syntactic projection has yet been set up beyond generic expectabilities based on clause structure.

It should be noted that I use the term 'bricolage' more broadly than Gardner (2007). He exclusively discusses cases of 'broken starts' of *turns*, but in my data I find the same phenomenon at turn-internal TCU beginnings, likely displaying the same underlying issue, namely some problem with producing a full unit of interaction. Hence, I also include cases of *TCU bricolage*. An example of bricolage representative of the instances I find in my data can be found in Extract 32, which is taken from the same recording that Extracts 28 and 29 stem from. After Tim and Arne exchanged some talk

on why they, respectively, would like to watch football and trampolining, Arne has just proposed a compromise: They would watch the football match favoured by Tim at their get-together, but plan for watching a trampolining competition at a later point. Tim is now attempting to move on to the next project indicated by the role-card, namely discussing the food they will have during their TV night. He very clearly struggles with this, however.

Extract 32: put food (SSL_191108_4, 4:50-5:03)

```
01   Tim:   oKAY;
02 →        °h ähm::
03 →        °h (0.8) w:e::_hh°
04   Arn:   (xxx xxx xxx)
   → Tim:   ähm: (0.5) can:
05 →        <<Ger> also:> (-) we can put (-) ~    FOOD;      ~
                   i mean
                                            ~LH moves notes~
            (0.7)
06          <<Ger> als(o) (-) JA->
                   i mean         yes
```

After producing an agreement token to indicate acceptance of Arne's suggestion (oKAY, line 01), Tim breathes in (line 02) and thus projects the possible launch of a forthcoming next TCU. He then immediately goes on to produce a hearable TCU beginning (Gardner 2007: 59) via the following hesitation marker, claiming continued speakership. Afterwards, however, there is another in-breath, this time followed by an unfilled pause (line 03) during which Tim starts moving his lips, possibly to display anticipation of the pronoun he is going to start his turn with and thereby better maintain claim to the floor. While he does recognisably launch his turn then, he immediately displays that he has encountered further trouble: The pronoun is lengthened, and followed by a noticeable, sighing outbreath as well as another pause (filled by some unintelligible talk by Arne), a second hesitation marker and an additional unfilled pause. The modal verb he finally utters is also lengthened, indicating that the issue is not fully resolved at this point either. There is sufficient evidence by then that what Tim struggles with is not a single lexical item, or even a particular syntactic unit, but rather the production of the TCU as a whole, an issue that he is eventually able to resolve by producing a prosodically, but only somewhat syntactically, complete unit (line 05). As I noted before, in opposition to searches, bricolage occurs at points where the next

interactional unit either has not been launched at all yet, or some turn-initial elements have been produced at most, and therefore no clear syntactic trajectory has been established. This clearly applies here: Tim's first speech perturbations occur when he has not yet produced any talk whatsoever, never mind enough to clearly provide some sort of syntactic or pragmatic projection. Even after he produces enough talk to generically make an upcoming predicate expectable (via the subject `w:e::`, line 03) and project the main verb as the next-due item (via the modal verb `can:`, ibid.), the restart following the particle `also:` (line 05) provides sufficient evidence that these are not a series of searches following the bricolage. Rather, Tim is still "using whatever is interactionally available to launch a [TCU, SR]" (Gardner 2007: 62).

5.2.2 Previous Research: Searches in L2 Interaction

Given their ubiquity as an interactional practice (see previous section), it is not surprising that searches have been researched just as frequently in L2 interaction as they have been in L1 talk. A look at relevant studies reveals some notable insights into both the differences (and similarities) between L1 and L2 searches and the interactional purposes for which L2 learners employ the practice.

The notion that searches are not at all reducible to attempts at dealing with "trouble producing a *word* in the midst of a turn at talk" (Mori & Hasegawa 2009: 65, emphasis mine; see also Auer & Zima 2021: 394) very clearly applies for L2 interaction in particular. Language learners have been shown to conduct not only lexical, but also grammatical searches (Kurhila 2006: 149; Koshik & Seo 2012: 174). The latter notion commonly refers to the attempt to find the word form of a lexical item which is appropriate for the grammatical context at hand (Kurhila 2006: 124; Koshik & Seo 2012: 175), but may also be expanded to include searches for 'correct' syntactic structure (Koshik & Seo 2012: 176). That there are such L2-speaker-specific types of searchables has been taken as an indication that L2 speakers may perceive grammatical correctness as far more important for maintaining mutual understanding than L1 speakers of the same language do (Kurhila 2006: 149). The very occurrence of such searches in L2 talk may therefore provide evidence for the speaker's limited linguistic proficiency (and IC) in the L2, since they appear to lack sufficient knowledge about common turn-designs and practices for action accomplishment to be able to estimate when a deviation from grammatical norms might result in a threat to intersubjectivity – or when such a deviation might be interactionally meaningful itself.

146

Since grammatical units and forms may be searched for as well, it seems pertinent to conceptualise L2 searches broadly, as a practice that speakers can draw on to deal with the unavailability of a range of next-due, projected items or units, in line with Gardner's (2007) rather generic take that searches help learners cope when they "struggle with expression" (:66). Regardless of what is being searched for, the unavailability of a next-due item or unit may be symptomatic for a range of underlying issues. Depending on whether or not the participant launching a search is recognised as an L2 user of the current medium of interaction, however, the possible inferences that result from the use of the practice may vary significantly: L1 speakers' searches are commonly attributed to local, "temporary lapses of memory, not lack of expertise" (Koshik & Seo 2012: 169; see also Kurhila 2006: 150), whereas L2 learners' use of the practice often is understood as a "display … that they are searching for words that they have not yet acquired or not yet fully acquired" (Koshik & Seo 2012: 170). Thus, if the participant is known to be an L2 speaker, their use of the practice may provide the grounds for ascribing them with limited linguistic competence (Kurhila 2006: 149). This tendency to treat L2 searches, a priori, as a manifestation of learner status obscures that the unavailability of an L2 item or unit may result from local issues similar to those assumed for L1 speakers, or may even be related to contextual contingencies: Brouwer (2003) has shown that language learners may draw on searches in order to find a descriptor allowing mutual recognition of a referent (:538; see also Gafaranga 2000: 329), while Kasper & Kellerman (1997: 8) point out that the interactional context itself may impose limits on which items could be used for turn construction, thus necessitating a search to find an available option.

More purposeful 'doing being a learner' via searching can be contextualised by indicating a lack of certainty in the appropriateness or correctness of one's own candidate, or by self altogether foregoing or terminating an attempt at resolving the issue (Koshik & Seo 2012: 170-171; see also Pekarek Doehler & Berger 2019: 54). One type of resource that L2 speakers commonly utilise to expressly reference their co-participant's language expertise, thus contextualising themselves as the less proficient user of the language in question, are 'explicit word search markers' such as other-directed questions (Brouwer 2003: 537; see also Koshik & Seo 2012: 170-171), particularly those that serve as an account for the learner's inability to provide their own

candidate continuation (Brouwer 2003: 540). It may be for this reason that other-directed questions reportedly occur more frequently in L2 than L1 searches (Pekarek Doehler & Berger 2019: 54).

Overall, how L2 speakers use and design searches closely reflects what has been established for L1 searches (e.g. Hosoda 2000: 48, 53-54; Hosoda 2006: 32; see also Kurhila 2006: 95). For instance, regardless of whether the medium of interaction is their L1 or L2, speakers observably use gaze to differentiate self- from other-directed searches, and thus indicate boundaries between different stages of searching (Barth-Weingarten 2021: 231; Goodwin & Goodwin 1986: 64; Kurhila 2006: 96, 148; Mori & Hasegawa 2009: 76). However, some differences have been observed with regard to the resources and techniques speakers employ for searching:

- There is evidence that in designing their searches, L2 speakers prefer using those resources that are familiar to them from their L1, rarely utilising L2-specific resources (Hosoda 2000: 48).
- Word-search markers are used differently. Both L1 and L2 speakers draw on self-directed questions as a resource for requesting assistance with a search (Hosoda 2006: 32). L2 learners, however, can also use self-directed questions to indicate that they are 'doing thinking', or that they are about to produce an upcoming "second-best type" of candidate, respectively prosodically up- or downgrading the marker to achieve this (Brouwer 2003: 538).

It has also been noted that L2 searches can follow a different trajectory than the ones commonly described for L1 searches. In L1 interaction, either the participant who initiated the search provides a continuation, or a candidate is put forward by a co-participant, making the trouble-source turn speaker's confirmation of its fit relevant (Koshik & Seo 2012: 171). In either of these cases, the epistemic authority on what constitutes an appropriate continuation to the unit-in-progress remains firmly with the trouble-source turn speaker. L2 speakers, however, may produce a try-marked candidate solution, thus requesting their co-participant to confirm or disconfirm its appropriateness and/or fit (ibid.). As discussed above, this is one way for L2 users to contextualise themselves as language learners, and their co-participant as a more proficient user of that language with higher epistemic authority (ibid.). As Hosoda (2006) notes in her discussion of what is essentially the same technique, L2 speakers often do 'vocabulary checks' (:32-33) to ascertain the fit of everyday lexis. The non-occurrence of this particular technique in L1 interaction therefore provides further evidence that language

148

learners utilise searches to deal with a broader range of trouble sources: Not only do they regularly employ the practice for grammatical matters, but they are also more likely to need to search for commonly used lexical items[40].

In addition to the differences observed between L1 and L2 searches in terms of resources and techniques, it has been noted that L2 speakers also have further means at their disposal for resolving searches. When participating in bilingual interaction, an L2 speaker may shift to another (shared) language, such as their L1, to produce a candidate continuation (e.g. Gafaranga 2000: 336; Greer 2013: 114; Kurhila 2006: 105). They may also draw on their L1 in other ways: Kurhila (2006) describes the phenomenon of 'foreignization', the use of an L1 item modified "so as to fit the [L2's, SR] … grammar and pronunciation" (:105). I will discuss such L1-based practices for repair in more detail in section 5.3.

5.2.3 Searches in L2 Interaction: Established Developmental Trajectories

Given that L2 speakers use searching to deal with a broader range of 'searchables' than participants interacting in their L1, it is not surprising that research shows the practice to occur far more frequently in L2 talk (Kurhila 2006: 92). This is particularly true for searches resolved by other-repair, commonly the outcome of a learner's unsuccessful attempt at resolving the trouble themselves, rather than of an immediate request for assistance (ibid.: 148), although Pekarek Doehler & Berger (2019) are able to show that attempts at first carrying out SISR are more common for more advanced L2 learners (:65). Overall, insight into developmental trajectories related to doing searching is sparse, however. What has been found is that

- searches are done by learners of all levels. Previous research has described searches conducted by both beginner-level learners (e.g. Barth-Weingarten 2021: 231; Koshik & Seo 2012: 170) and intermediary-to-advanced-level learners (e.g. Barth-Weingarten 2021: 231; Hosoda 2000: 41, 2006: 29; Pekarek Doehler & Berger 2019: 55). However, there is some indication that learners with less linguistic proficiency in the L2 are more likely to do searching, especially so if the L2 is the only available medium of interaction (Kurhila

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[40] Lilja (2014) confirms that for language learners, any lexical item may cause an interactional problem. She points out that "[i]n second language interactions, … problems of understanding the meaning of certain lexical elements are not restricted to slang words or specialized terms; instead, the language of interaction can cause problems of understanding at any time" (ibid.: 100).

2006: 91). Notably, Kurhila asserts that the "word search potential" is especially high for "non-native speakers who only have a rudimentary knowledge of the language" (:93).

- across learner levels, there are changes in how L2 speakers utilise particular resources. Barth-Weingarten (2021) shows that while "learners from all competency levels … employ gaze to distinguish self- and other-directed phases of … word searches" (:231), it is her intermediary-to-advanced learners only that can be seen to maintain gaze at their interlocutor throughout a search. She regards this as an indication for more developed repair- and turn-taking skills: The intermediary-to-advanced learners, by keeping their gaze on their co-participant, may express both a lack of dependence on gaze withdrawal for turn-holding purposes, as well as an advanced ability "to distinguish situations with a greater need for planning time … from the more routine ones, in which they can rely on their linguistic skills to resolve the trouble of speaking in time" (ibid.).

- as they become more advanced in their L2, learners diversify their search techniques. Longitudinal data suggests that over time, L2 learners acquire a broader range of means to request assistance with a search (Pekarek Doehler & Berger 2019: 55). This enables them to reduce their use of explicit metaquestions and instead draw on more implicit means like the production of a try-marked candidate to be confirmed as appropriate (:56). Furthermore, the authors showcase that at later stages, learners are able to resolve the unavailability of an item or unit due next more quickly, and in a less disruptive manner (ibid.: 55, 65).

The research already available on searches in L2 interaction provides sufficient grounds to assume that a discussion of the practice as used within my data will prove worthwhile for pursuing my research objective. Indeed, I will show that learner levels may be differentiated on the basis of learners' employment of searches (and of a closely related practice, bricolage; Gardner 2007). In particular, I will argue that

- the (frequency of) occurrence of bricolage serves as an index for a learner's limited L2 IC (including their repair skills), and that additional evidence to that effect can be derived from consideration of how (quickly) learners resolve the problem that leads to bricolage (section 5.2.5);

- advanced-level learners can be distinguished from lower-level learners on the basis of whether, and to which extent, they use searches to optimise turn-design (section 5.2.6);

- advanced-level learners are distinct from the lower-level learners in that they do not only draw on, and thus display access to, a broader inventory of resources for their searches (in particular in terms of bodily-visual cues), but also are able to use these resources in a precise manner to contextualise the boundaries of an ongoing search, as well as the identity and location of the searchable (section 5.2.7).

I will start with providing an overview of the repair initiation practices used by my learners. The subsequent sections are dedicated to my analyses in support of the aforementioned claims.

5.2.4 Learners' Practices for Repair Initiation: An Overview

Across all my data, searching constitutes the predominant repair initiation practice. It is used in the vast majority of instances in the beginner- and advanced-level collections, amounting to roughly two thirds of the cases in the former and three quarters of instances in the latter. In the intermediary-level data, it is less frequently used, but still occurs in more than half of the cases (see Table 2).

Table 2: Practices of repair initiation across learner levels

	beginner level (n = 28)	intermediary level (n = 30[41])	advanced level (n = 33)
searches	18 (64 %)	16 (53 %)	25 (76 %)
bricolage	--	12 (40 %)	2 (6 %)
other	10 (36 %)	2 (7 %)	6 (18%)

This is unsurprising, considering that the criteria which cases of repair needed to fulfil to be included in my core collection (see section 4.2.1) show significant overlap with those commonly used to identify cases of searching. Indeed, since the 'word search potential' is fairly high in both L1 and L2 interaction, researchers investigating the

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[41] To ensure comparability with the other two collections, I randomly selected 30 cases from the intermediary-level data set for this overview. The percentages accurately represent the distribution of instances across that sub-collection as a whole.

practice have found ways to distinguish clear, 'remarkable' (Barth-Weingarten 2021: 213) or 'substantial' (Kurhila 2006: 96) cases of the practice from instances of similar "phenomena such as deliberate halts of speech fluency" (Auer & Zima 2021: 394) or minor hitches in talking, which can be considered a general characteristic of "NNSs [non-native speakers, SR] having only a rudimentary knowledge of [the L2, SR]" (Kurhila 2006: 147). One way to identify such clear cases is to only include those searches that are resolved through other-repair, and thus are observably treated as searches by the co-participant of the trouble-source turn speaker, a strategy pursued by Kurhila (2006: 96), and less explicitly so by other authors (e.g. Pekarek Doehler & Berger 2019: 55). Since other-repair very rarely occurs in my collection (see section 5.1), this approach was less useful for my data. Thus, when reviewing my cases for occurrences of searching, I made use of a slightly adapted version of the criteria utilised by Auer & Zima (2021: 393-394) and Barth-Weingarten (2021: 213), who both took the design features employed by their participants as the point of departure. For some suspension of an ongoing unit to count as a search, not only must there be a syntactic projection in place, but the authors agree that there need to be "prolonged speech perturbations" (Barth-Weingarten 2021: 213) resulting from, for instance, a combination of several (lexico-syntactic as well as prosodic-phonetic) "hesitation element[s]" (Auer & Zima 2021: 394; see also Barth-Weingarten 2021: 213). Since they are investigating participants' gazing behaviour during searches, they do not include gaze – and other bodily-visual cues – among the possible identifying features. Lacking such a specific focus, I considered gaze, gestures and facial expressions that have been reported as cues for searching in the past as further 'hesitation elements'.[42]

A review of the cases thus identified shows that the proportion of the practice is highest in the university-level data, and lowest with the intermediary level-learners. The drop in frequency from beginner- to intermediary level coincides with the appearance of bricolage. As I noted in section 5.2.1, while this practice is similar in design to searches, it is used to deal with an entirely different kind of trouble, and is much more

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[42] Proceeding in such a manner, I base my categorisation on design, and can make no claim as to whether the underlying issue participants deal with actually is the unavailability of some item or unit, or whether the learners display such while dealing with something else causing the halt in progressivity. To account for this innate problematicity of CA research, my arguments in this chapter will depart from a review of those cases in which a specific searchable can be fairly unambiguously identified as the (main) trouble source at hand. Future research may reveal means to (better) distinguish 'searches simpliciter' (following Kendrick 2015: 181) from vehicle searches, and thus permit comparisons between the two.

specific to talk produced by L2 learners. In the following, I will comment on how the (frequency of) occurrence of bricolage may serve as an index for a learner's limited L2 IC, and their (low-level) repair skills in particular.

5.2.5 Bricolage as an Index for Language Proficiency and Repair Skills

Gardner (2007) posits that broken starts are especially likely to occur in the context of linguistic units and structures that a learner is currently (close to) acquiring (:68). However, my own data suggests no such focused occurrence: Learners are just as likely to follow up on the broken start with a fairly L2-like unit (e.g. Extract 33 below) as they are to either produce something that, even in its context, is not at all a fitting L2-like turn design (e.g. Extract 32), or to entirely abandon their attempt at planning and designing the unit they had initiated (e.g. Extract 47, to be discussed in section 5.4). It appears more apt, then, to suggest that while bricolage may occur when "the turn requires words and structures that *are* at or near their current capabilities" (Gardner 2007: 68, emphasis mine), learners could also draw on this practice to orient to what they know they should be able to produce, regardless of their actual current inventory of linguistic resources. However, I do not mean to rebut Gardner's claim that a learner's current linguistic proficiency in the L2 impacts when and in which contexts they will utilise bricolage. Generalising from this observation, I actually find the notion that an L2 learner's linguistic inventory will directly impact their ability to participate in interaction (ibid.: 62) to be very noteworthy. It allows the suggestion that the very occurrence of bricolage may provide indication of a learner's limited L2 IC, including repair skills. When used, the practice indicates that the learner in question has not just encountered fairly local problems with particular items or syntactic units, but actually struggles with *producing interactional units as a whole* for want of sufficient linguistic ability. The former, while potentially threatening mutual understanding, usually are momentary problems that can be dealt with collaboratively and via substitutional means such as paraphrasing. An inability to contribute to interaction, however, constitutes a far more grievous issue, since it may not only lead to interactional breakdown if left unresolved, but also implicates a lack of means for accomplishing repair when necessary.

Thus, occurrences of bricolage are relevant in the context of discussing L2 repair skills in at least three ways.

- First of all, the (recurrent) use of bricolage provides evidence that a learner's language skills are severely limited, to an extent that the ability to accomplish generic interactional tasks such as repair may be drastically inhibited.

- Secondly, similarly to the 'vocabulary checks' described by Hosoda (2006: 32-33; see also Koshik & Seo 2012: 171), bricolage constitutes an SIR practice that has been reported to be, if not exclusive to, then at least strongly associated with L2 learners. Although there is no indication that bricolage constitutes a practice for (purposeful) 'doing being a learner', something which has been argued for 'vocabulary checks', the practices likely are comparable in that they both can be used as grounds for ascribing speakers with limited linguistic competence, and thus with learner status (see Kurhila 2006: 149). Given the availability of different initiation practices, learners therefore are likely to avoid bricolage, and its (frequent) occurrence may serve as indication that a learner's inventory of practices is limited in size and diversity.

- Thirdly, bricolage is understood to be a practice for dealing with problems in planning and designing a full unit of interaction (i.e., a TCU or full turn). Therefore, its (non-) occurrence provides valuable insight into the types of trouble source that require learners to noticeably halt progressivity in order to attempt repair.

In sum, it stands to reason that as learners develop their L2 repair skills – both in terms of the types of issue that necessitate those skills, and in terms of the practices they can use to resolve those issues – they will become less and less dependent on this learner-specific practice. More frequent occurrences of bricolage within a data set would therefore be indicative both of more frequent problems with producing an interactional unit as a whole, and of a less developed set of L2 repair skills.

Against this background, it is notable that instances of bricolage very clearly cluster in the intermediary-level data, whereas the advanced learners only produced two candidate cases of the practice (see section 5.2.4). That there are no occurrences within the beginner-level data does not necessarily refute my suggestion, since the tasks the novices are engaged in rarely require them to fully produce their own turns (see section 5.1 for more detail) and thus make it unlikely for bricolage to occur. The intermediary- and advanced-level learners, on the other hand, are issued comparable tasks, in that they necessitate for the learners to come up with and design their own contributions.

Focusing on the occurrences of the practice within the 7th-grader cohort in particular, it is notable that while all members of the group produce cases of bricolage, clear differences between the learners are observable in how often bricolage is used to self-initiate repair (see Table 3).

Table 3: Bricolage in the 7th-grader cohort

Tim	Arne	Maik	Leo	Gunnar
11 (100 %)	2 (25 %)	4 (27 %)	2 (17 %)	1 (14 %)

Four of the members of the cohort produce fairly similar proportions of bricolage. Tim is the clear outlier: All of his cases feature self-initiation via this practice. Throughout the role-play, Tim can be seen to struggle with producing his utterances on a TCU-by-TCU level. Often, he is unable to resolve these issues on his own, or at all (see section 5.4). I have already discussed an instance of bricolage from his talk beforehand (Extract 32). However, to further illustrate how pervasive the practice is in Tim's data, and how clearly this demonstrates his comparatively low skill level relative to his classmates, I will provide further commentary on Extract 29, which I introduced in section 5.1. A modified version of the transcript is provided below.

```
Extract 29': what's watching (SSL_191108_4, 2:47-3:12)
01   Res:   TIM.
02          [<<p> needs to START;>]
03 → Tim:   [          ä:hm:       ] ((licks his lips))
   →        ▫    (0.9)     ▫ <<exhales> hh°>
            >>gazes at notes-->
            ▫opens mouth,
             then presses
             lips together▫
   →        ((click))_°h ä:hm: (1.7) w:ha:t (0.5) ähm a tee
   →        VEE night?_h°
04          ähm (1.0) and FRIENDS,_((laughs))
05          °h ähm: ((click)) (2.3) <<(Ger)> JA.>
                                         yes
06   Arn:   (0.9) ▫ (.) ((laughs softly))▫
     tim:         ▫closes lips, then
                       starts smiling▫
```

```
07   Tim:    ((laughs)) what's <<:-)> *WATCHing,> ((smiles))
                                      *looks at Arne's notes,
                                       then at Arne-->>
```

As I mentioned before, in lines 03-07 Tim produces the very first turn within the role-play. He is designated as first speaker by the role-card he received as well as by the researcher (lines 01-02). As a clear indication that he is aware of this, he produces a turn-initiating verbal element (a lengthened hesitation marker, ä:hm:, line 03). In line with what has been described for prototypical bricolage, he follows up on this with a number of verbal and bodily-visual 'turn-retarding elements' (Gardner 2007: 69): First, he licks his lips, and after briefly opening his mouth, he presses his lips closed before forcefully exhaling. At this point, it is clear that he did not merely delay the launch of his turn in order to wait out the overlap created by the researcher's increment, but is facing genuine trouble in getting his turn started. This impression is reinforced by the delaying devices he subsequently produces, including another lengthened hesitation marker and an extended unfilled pause. All the while, he is gazing at the papers in his hand, made up of not only the role-card (and thus information on what he is supposed to argue for) but also any notes he took during the preparation time. It is this which makes this case of bricolage so notable. As Gardner (2007) comments, bricolage very commonly occurs after other-selection, in particular when a participant is required to provide some sort of extended responsive turn (:67). Trying to spontaneously produce a relevant utterance, learners may then find themselves in need of something fitting to say, and/or lacking the necessary resources to express themselves in the L2. In my collection, bricolage very often is used during the later stages of the role-play, where learners need to react to contributions that they may not have been able to anticipate in advance, and therefore could not prepare for. Tim, however, already draws on the practice in his very first turn, one that he had both the time and the necessary information (including some 'helpful phrases', suggestions for fitting lexico-syntactic designs) to prepare for. That he is unable to produce this turn without utilising bricolage is, by itself, very telling of his general skill level in the L2. His eventual candidate TCU, which does not at all recognisably implement any particular action, provides further evidence that Tim is a very weak learner overall, compared to his classmates. Combined with the very infrequent occurrence of the practice in the advanced learners' data, it can be argued that out of all the members of the 7th-grader cohort, Tim is the

156

learner whose conduct places him furthest from the advanced level. This matches with further patterns I will discuss in sections 5.3 and 5.4[43].

If Tim's frequent use of bricolage provides evidence that he is the weakest learner within the cohort, Leo and Gunnar can be posited to be the strongest members of that group. As I showed in Table 3 above, both these learners commonly eschew this learner-typical practice, and therefore provide far less evidence of limited linguistic and interactional skills. There also are qualitative differences between the cases of bricolage produced by Leo and Gunnar, and those by Tim. Leo and Gunnar are not only able to resolve problems with planning and designing a unit of talk fairly quickly, but they also tend to produce their TCUs fluently once they are launched, without need for further delay, and in a rather L2-like way. I will illustrate these further indications of differences in skill level between those learners with one of Leo's instances of bricolage (Extract 33). Prior to this excerpt, Maik had refuted Leo's assertion that watching a sailing regatta would be the better option for their TV night since they could flexibly adjust how much time they want to spend doing so. Maik argued that planning for a football match would actually be the safer bet, since these tend to take place every weekend, and will certainly be broadcast via television, while they might not have access to any sailing coverage. Without responding to Maik's attempt at eliciting agreement with his proposal (line 01), Leo now objects to his claim.

Extract 33: yacht tee vee (SSL_191108_5, 5:47-6:02)

```
01   Mai:   [  oKAY,  ]
     leo:   >>looking at notes-->
02   Leo:   [uh (xxx);]
03          (.) *YEAH, ?
                *lifts head, gaze moves towards Maik-->
04          uh: sailing come on:* YACHT *tee vee,
                                 *gazes  *gazes at Maik-->
                                  down
```

---

[43] In fact, I will later argue that Tim tends to reflect the beginner-level learners' conduct rather than that of his classmates. It could be speculated, then, that the dominance of bricolage in his data serves as a hint that if the novice learners also were required to produce their own turns without scaffolding, occurrences of the practice would be similarly frequent in their talk. Of course, further research is needed to test that supposition.

```
05  Mai:   $((laughs))
     mai:   $withdraws gaze from Leo,
            first to middle distance,
            then to his notes-->
06            *(0.8)$
     mai:          $
     leo:   *starts withdrawing gaze from Maik-->
07 → Leo:   *a:nd □   (0.8)   □  *i have this on my pee CEE;=
            *lowers gaze       *looking at Maik-->
             to Maik's notes
                  □licks lips□
08            =*we  ca*n (0.3)    *we ca:n (0.8) *  look_i:t *
              *looks *gaze flicks *looks at Maik *flicks gaze
               at Res to M briefly               to Res,
                                                 nods       *

            on my pee CEE;
```

Leo notes that it is in fact possible to watch races, since there are livestreams provided by the online platform YACHT tee vee (line 04). While his rising final intonation projects the possibility of more talk to come, he directs his gaze at Maik when reaching the end of his TCU. At this point, it is ambiguous whether Leo invites Maik to take the turn or not. Maik's bodily-visual conduct suggests that he does orient to the option of speaker change: Just after Leo's turn reaches this possible point of completion, Maik quietly laughs and withdraws his gaze from Leo, first moving it to the middle distance, and then transferring it to the notes in his hand. Notably, though, after Maik dissolves the mutual gaze between himself and his partner, Leo only keeps his gaze on Maik for a short time before redirecting it downwards. If he can be said to monitor for possible projection of turn-taking by Maik at all, then he only does so very briefly. More so, as his own gaze withdrawal coincides with Maik's gaze redirection towards his notes, it is unlikely that Leo has had access to the evidence that Maik might be preparing to speak. It does appear, then, that Leo still considers himself the current speaker and responsible for producing the next TCU. In this light, the long pause prior to line 07 indicates that he did not have a continuation to his objection pre-prepared. The conjunction a:nd then serves as an initiating verbal element claiming the floor for at least one more TCU. That he is facing an issue with properly launching the TCU is visible not only in the delay of the TCU-initiation itself, but also in the lengthening of the conjunction, and the subsequent unfilled pause. These delaying devices co-occur with

some minor mouth movement, but notably, Leo only directs his gaze back to Maik upon properly launching his TCU.

This case fulfils all criteria for being considered an instance of (TCU) bricolage: The launch of a unit of talk is noticeably delayed through a variety of retarding devices, in this case "silence in the inter-turn space, … intra-turn pauses after the turn has begun, [and] sound stretches on an initial item" (Gardner 2007: 63). That initial item is a conjunction, a typical initiation resource (:59). Together, these features indicate that Leo is facing some trouble in producing the turn-continuation he had projected via his prosodic design of the previous TRP. However, while it is part of the same category, Leo's instance of bricolage displays some relevant differences to Tim's. For one, when Tim utilises the practice, this generally results in substantial delays, reaching up to ten seconds of duration (see Extract 29'), whereas in Extract 33, Leo only slightly suspends the launch of his next TCU. Although Tim also produces some instances in which there is a less extensive halt (with some of them amounting to as little as roughly two seconds of overall delay), he generally displays long-lasting struggles with producing the TCU-in-progress: Even after launching the unit, there usually is further delay through sound lengthening, hesitation markers and unfilled pauses, as can be seen in both Extracts 32 and 29'. Leo, on the other hand, is able to produce the entire unit fluently once he launches it, with further trouble only occurring in the next TCU (line 08). The TCU he produces also is fairly L2-like in design, although not fully so, and clearly suggests a specific action. In contrast to this, Tim not only is recurrently unable to produce any TCU at all (see section 5.4 for a detailed discussion of those cases), but even when he does manage to do so, the resulting unit recurrently is non-L2-like to an extent that it is unclear what action the utterance is supposed to implement (see, e.g., Extracts 32, 29').

All this provides further evidence that the learners of the cohort can be differentiated through their usage of bricolage as a practice for self-initiation of repair. Tim not only needs to draw on it significantly more often than his classmates, but his comparatively less advanced repair skills also are visible in that he requires more time to resolve the problem (the halts in progressivity engendered by his cases of bricolage being quite extensive on average)[44], is not always able to produce an L2-like TCU (if any TCU at all), and in many of his cases, faces further trouble after launching his unit.

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[44] This aligns with Skogmyr Marian & Pekarek Doehler (2022), who note that as learners advance through levels, the halts in progressivity generated by their repair attempts become less extensive: While

In addition to all of this, there also is evidence that the participants themselves treat frequent use of bricolage as problematic and an indication of limited L2 interactional skills. I will show this with Extract 28'' (reproduced from Extract 28 and refocused for my argument here). At this point in the role-play, Tim had already produced his first turn, which I discussed in Extract 29' above. After the instance of bricolage I analysed there, he initiated two further attempts at producing a TCU. In both cases, delaying devices preceded any recognisable launch of the projected interactional unit. The turn in focus here follows Arne's own first utterance, in which he proposed watching a trampolining championship.

```
Extract 28'': german versus england (SSL_191108_4, 3:25-3:33)
01 → Tim:   ähm: °h      ▫     (1.4)      ▫
     tim:   >>gazing at notes-->
     tim:              ▫closes lips ▫opens mouth
     arn:   >>gazes at Tim-->
02 → Arn:   ((lau[ghs))§%      ]
03 → Tim:        [((lau§%ghs))] °h@ we: (.)    @+can (.)
     tim:                                  +slight head-
                                            tilt left-->
     arn:             §withdraws gaze from Tim-->>
     arn:              %smiles-->
     arn:                      @shakes head@
  →         watch: (-) %uh +FOOTball,
     tim:                  +
     arn:             %
```

Mirroring his previous incoming, Tim initiates his turn with a (lengthened) hesitation marker and a subsequent extended unfilled pause, during which there is some lip movement (line 01). Once again, then, he both indicates awareness that it is his turn, and displays trouble with getting it started. In this context, it is striking that Arne, who is gazing at Tim, starts laughing at this point (line 02). When Tim joins in the laughter (line 03), Arne withdraws his gaze and briefly shakes his head while doing so. As Tim

---

low-intermediate learners frequently produce "[e]xtended solitary searches" (Sect. 4.2.3, para. 3), high-intermediate learners "typically resolve searches expediently …, without heavy impediment on the progressivity of talk" (Sect. 3, para. 3).

has not yet provided any talk that Arne's laughter and subsequent head and gaze movement could be responsive to, his bodily-visual conduct clearly is occasioned by the delaying devices, and displays his stance on Tim's recurrent struggles with producing talk. This stance is likely to be less-than-positive, considering the symbolic character of head shakes in many cultures, including the German one. The smile with which Arne accompanies this head movement may be done to mitigate the negativity of the assessment that a co-participant could infer from the gesture. Still, even as he takes care to avoid being too strongly disaffiliative, Arne clearly displays some impatience with the repeated occurrence of bricolage. Thus, if bricolage is used too frequently, even fellow L2 learners indicate that they consider it to be a problematic SIR practice.

In sum, there is enough evidence to posit that learners of different levels can be distinguished according to a) whether or not they utilise bricolage, and b) how frequently they draw on this practice, provided that the data is produced in contexts that require learners to produce their turns (mostly) spontaneously. The data shows that intermediary-level learners frequently draw on the practice, while it is only very rarely utilised by the advanced learners (see Figure 6). Through being able to largely avoid this practice, the advanced-level learners show more advanced repair skills: There is little indication that their ability to conduct repair may be inhibited, and while the intermediary-level learners regularly seem to lack in alternative practices to deal with their issues of speaking, the same does not generally appear to hold true for the university-level learners.
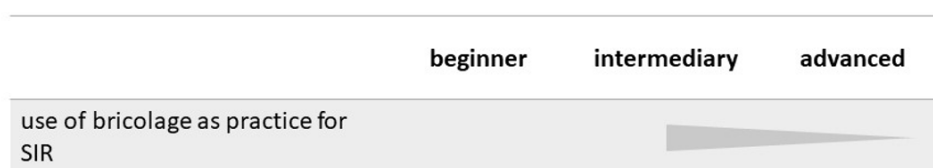
Figure 6. Distribution of bricolage across learner levels

Further support for the usability of the (frequency of) occurrence of bricolage as a candidate criterial feature for assessing repair skills can be found in the observation that the members of the 7th-grader cohort also differ quite significantly from each other in terms of their use of the practice. Tim, overall the weakest learner in the group, very frequently draws on bricolage as a practice for self-initiating repair, while his peers

only produce few instances (see Figure 7[45]). The candidate criterial feature would therefore also be useful to rank these learners.

	Tim	Arne	Maik	Leo	Gunnar
use of bricolage as a practice for SIR	▊	▬	▬	▬	▬

Figure 7. Distribution of bricolage within the 7th-grader cohort

Given that Gardner (2007) shows bricolage to be a practice that is specifically related to issues of "planning and designing" units of interaction (:63), the frequency with which it is utilised provides some relevant insight into a learner's skills (both linguistic and interactional). Tim, who strongly relies on the practice, thereby displays a) extensive problems with contributing to interaction at all, b) that issues of producing units of interaction dominate in his talk, and c) that he has access to only a limited set of repair skills. Leo and Gunnar, on the other hand, generally have enough grammatical and lexical means at their disposal that launching a unit-of-talk usually does not constitute a (notable) problem, and more frequently draw on other self-initiation practices. Even the participants themselves appear to indicate that an overuse of the practice should be avoided. This provides emic evidence that to some degree, even the learners themselves are aware of – or at least not immune to – inferences raised by the utilisation of L2-specific practices, and can be expected to avoid the practice if possible. That Tim does not do so, but Leo and Gunnar do, shows their differing repair skills.

To further support my argument that a learner's use of bricolage is a suitable index for their developing repair skills, I return to the discussion of the qualitative differences between cases of bricolage as done by Leo and Gunnar and those produced by Tim. Beyond the *(frequency of) occurrence of bricolage as a practice for SIR*, additional candidate criterial features can be posited, although further research is needed to establish whether my observations hold when tested against a more expansive set of cases from all learner levels. At this point, I can show that learners of the cohort differ on the basis of how quickly and fully they are able to deal with the issues that required

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[45] In these figures, the members of the cohort are not arranged randomly. Mirroring the figures representing the results of my cross-sectional analyses, the learners are ordered in terms of their skill level, from lowest to highest. My analyses throughout this chapter will account for this sequencing.

them to draw on bricolage. That is, their repair skill can also be ascertained by considering

- the *extent* to which the learner needs to *halt progressivity*. Tim's instances of bricolage always entail a halt of at least two seconds, although frequently they last for more than six and up to ten seconds of duration. His classmates' instances frequently result in less than two seconds of overall delay, although occasionally they may reach up to six seconds of duration.

- whether the learner commonly *has resolved the issue at hand fully* when launching the incipient unit-of-talk. Generally, when Tim does produce a candidate solution, there are subsequent halts in progressivity, while Leo and Gunnar tend to produce the unit fluently after launching it.

- whether the learner commonly produces an *L2-like candidate solution*. In Tim's case, his solutions tend to be non-L2-like to an extent that mutual understanding is likely threatened. His classmates' units often show some deviation from L2 standards, but are still mostly L2-like nevertheless.

Interestingly, my findings suggest a correlation between a learner's substantial reliance on bricolage for self-initiating repair, and extensive halts in progressivity without full, L2-like resolution of the issue at hand. This begs the question as to whether both sets of criteria would be required for a comprehensive assessment of learners' repair skills – I will add further commentary on this, and other issues of practicality, in Chapter 6.

For now, I return to a point I made earlier in this section: Learners' utilisation of bricolage is not only notable because it is a learner-typical practice which indexes severe limitations regarding language skills, but also because it indicates how likely a learner is to struggle with producing an interactional unit as a whole. This coincides with something I observed when reviewing the cases in my data in which the learners carry out searches: Across levels, there are small differences regarding which *searchables* require the use of the practice. More notably, though, more advanced learners can be shown to use searches to deal with different *underlying issues*. I will now discuss these aspects in more detail.

5.2.6 Why Learners Search: Observations Regarding Searchables and the Issues Underlying Searching

At beginner level, it is notable that almost all searches are *word searches* in the narrow sense – in most cases, it is clear that what the learners are struggling with, at the time, are the immediately next-due lexical items. In part, this lack of ambiguity certainly can be attributed to the task design (see section 5.1), but even when they are not provided with scripts, the novices recurrently initiate searches on what then turn out to be TCU-final items. This makes a closer review of the searchables feasible, revealing that when the beginner-level learners utilise word searches, they overwhelmingly look for lexis that is central to the current teaching topic, and which arguably constitutes the main learning target of the tasks the learners are engaged in. This suggests that at this level, learners commonly use searches to deal with still-open gaps in their developing lexicon. Such is the case in Extract 22'', reproduced again from Extract 22. The recording was made during one lesson within a larger teaching unit dealing with the topic 'pets' (QUA-LiS: "Filmsequenzen 4 – *My favourite pet*", 2023, website). Earlier, the same recording had cut to posters on one of the classroom walls listing central lexical items related to that subject matter (common pet foods and dwellings), and to smaller cards providing the same information, including one on physical features. Some learners can be seen to hold these cards. This material indicates that the learners previously had compiled and reviewed relevant vocabulary. Freya now encounters trouble with one such lexical item (line 01), and initiates repair by conducting a search.

     Extract 22'': four legs (QUA-LiS NRW 04.4, 1:39-1:49)

```
01 → Fre:   ähm::_((click)) (1.0) it's* f:::+our   + * (.) f
             >>looks at own paper     *looks up      *looks at
                                       at girl         paper-->
                                            +slight
                                            nod   +


   →          +ä*ö:h +    *uhm u_four □   (0.5)    □
               *looks at *looks at paper-->
                girl
             +shakes
              head  +
                                        □opens mouth□
02 → Gre:   LEGS? *
      fre:         *looks at Greta-->
```

```
03   Fre:   L+*EGS?+
               *looks at paper-->>
             +nods +
```

That she utilises this practice is not only recognisable through the design features she employs (e.g., hesitation markers, unfilled pauses, recycling of quantifier, sound lengthening), but also through participant orientation: Greta provides Freya with a candidate continuation in line 02, and thus treats the halt in progressivity as indicative of an issue with an unavailable next-due lexical item. Relevantly for my argument, the searchable

- is included in the supporting material provided to, and likely compiled by (or at least with), the learners;
- constitutes a very basic vocabulary item;
- occurs within the context of an activity that the learners have been able to prepare for in advance: Tasked with describing their 'favourite pets' to their classmates, each child has brought along a poster depicting the animal in question (although no text seems to be included). Just prior to the extract analysed here, the class jointly practiced presenting their pets to each other.

Any of these three aspects would generally prevent the need for an extended search. That Freya still draws on the practice may be understood as an indication that she has "not yet acquired or not yet fully acquired" (Koshik & Seo 2012: 170) the item in question. Vocabulary acquisition and the development of a basic lexicon of course constitute a central aspect of beginner-level language learning (see, e.g., DeCarrico 2001: 287). Learners such as Freya, who is in her third semester of EFL learning only (QUA-LiS: "Filmsequenzen 4 – *My favourite pet*", 2023, website), therefore cannot automatically be expected to have access to even basic vocabulary items such as 'leg'. Although the mere fact that Freya initiates self-repair on such a searchable is not noteworthy, however, even my novice learners occasionally indicate that once a vocabulary item has been *introduced* to them, (expanded) word searches for it become accountable, especially when it is part of the active vocabulary for a particular context. This is visible in the following extract, which I have first discussed in section 5.2.1 (see Extract 31)[46].

---

[46] The lexical item Adam is searching for had briefly become the focus of interaction earlier in the lesson. When the teacher starts discussing a role-playing work station with the learners (camping store;

Extract 31': matches (QUA-LiS NRW 02.8, 0:16-0:24)

```
01   Zoe:   what ~IS it;
     ada:   >>looks at bag-->
     ada:        ~starts feeling bag-->
02   Ada:   *+(--) °hhh
            *turns gaze to the right-->
             +turns head to the right-->
03 →        °hh this is a:*~::              ~
                         *looks up-->
                          ~removes RH from
                           bag, then snaps
                           fingers      ~
   →        öh~m:_hh°* (---)~ (-) ~(0.5)*    ~
             ~shakes RH        ~shakes bag
              index finger ~      slightly  ~
                   *gazes left, then
                    then down-right   *
            ~*MATches;     *
            ~points index finger to the left-->>
             *looks at bag *looks at Zoe-->>
```

It is likely that Adam delays the launch of his turn at least partly because he needs time to recognise the item within the bag – hence the unfilled pause and extended in-breath (line 02) preceding the turn start in line 03. He indicates that he has achieved recognition by simultaneously launching an utterance projecting identification of the item (this is a:::), and stopping to feel the bag: He stills his left hand and entirely withdraws the right one from it. As a result, the subsequent halt in progressivity is well-understandable to be a "word search on the level of lexical access" rather than one occasioned by a problem with conceptualisation (see Auer & Zima 2021: 408). However, Adam displays that the lexical item in question is one that is familiar to him, and indicates that the search takes longer than should be necessary, or should not have happened at all. After withdrawing his right hand from the bag, he snaps his fingers. Previous literature has indicated that finger-snapping is a fairly recurrent feature of

---

see Extract 30), one of the pupils announces that he has brought along matches to 'put on sale' there. He does so in German, prompting the teacher to ask for the English term – as she reminds the group, it is already known to them. At the point at which this extract occurs, then, Adam has been freshly reminded both of the term itself, and that he is expected to have acquired it already.

self-initiation of repair, and searching in particular, both in conversational and institutional contexts (Duran et al. 2019: 8; Lee 2005: 17; Hırçın Çoban & Sert 2020: 71). More specifically, the resource has been associated with the attempt to find a 'precise' word (Duran et al. 2019: 8). In the extract discussed here, though, the finger snap rather appears to display self-directed impatience, in particular since it is combined with Adam's subsequent shaking of his right hand, his rather dynamic gaze movement (he first gazes upwards, then moves his gaze left and then down and to the right) and a brief shake of the bag with his left hand. This conduct suggests that Adam is aware that he should have the searchable available, and therefore explicitly needs to indicate that what prevents him from immediately continuing is a momentary lapse of memory only. Otherwise, the extensive search could implicate lack of lexical knowledge.

In sum, novice learners utilise searches to deal with *unavailable lexical items*. Usually, these belong to the active vocabulary of the session recorded, although the beginners may also look for other basic vocabulary items (e.g., core adjectives such as *big, good*). This holds for many of the cases of searching in the intermediary-level data as well. However, at that level learners also start engaging in searches that arguably do not (only) aim at finding a next-due lexical item, but rather are (also) *syntactic* in nature (see Koshik & Seo 2012: 176-177). One such case is provided below (Extract 34). Just like in the other role-plays, the starting point of the discussion here was what to watch during a TV night, with Gunnar arguing in favour of ice hockey, and his partner (Maik) advocating for a football match. Maik has just suggested to resolve the disagreement by asking the friends they plan to invite for their opinion on the matter, and then decide on site. Gunnar rejects that suggestion, arguing that they will both invite people, and thus will likely be supported by their respective friends anyways (lines 01-02).

Extract 34: when i my friends inload (SSL_191108_3, 3:46-3:53)

```
01   Gun:   but +  when   + *you + when  i  +MY_? friends
            >>looks          *gaze recurrently shifts
              at Maik         between Maik and middle
                              distance-->
                +points LH        +points LH
                 at Maik  +        at himself+
            inload,
02 →        °h maybe he *say ALso to: °h ä:hm i want to (.) he
                        *looks at Maik-->>
   →        want to see ice hockey-=
```

In the course of producing his second TCU, Gunnar encounters trouble with giving voice to his argument. At a point where the current syntactic trajectory suggests an upcoming main verb for the non-finite clause (`he say ALso to`, line 02), he suspends his talk by first producing sound lengthening and an in-breath, and then a lengthened hesitation marker. Following this, he chooses a different syntactic structure, retrospectively recategorising `say` from the main verb of the main clause (in a meaning similar to 'argue in favour of X') into a quotative projecting upcoming hypothetical reported speech. This allows for two analyses:

- Gunnar searches for a fitting main verb and, upon being unable to find it, produces an alternative structure to the one initially projected;
- Gunnar indicates an issue with the syntactic trajectory he has set up, and searches for a different structure to replace it.

While somewhat reminiscent of the case Koshik & Seo (2012) discuss, this instance is ambiguous as to what trouble source Gunnar is dealing with. However, given that the verb he eventually produces would have fit just as well in the original structure, I consider it likely that Gunnar is orienting to a syntactic problem here. This case, then, provides evidence that even if intermediary-level learners are still most likely to search for lexical items, they start utilising searches to deal with a broader range of problems.

The intermediary-level learners' searches can, however, still be ascribed to the same general underlying issue that is at the basis of the novice learners' utilisation of the practice, namely gaps in L2 linguistic skill. This fits nicely with the widespread use of bricolage at intermediary level I noted in section 5.2.4, which also indicates limited linguistic ability in the L2 (see section 5.2.5). Even in those cases where the search results from a temporary inability to recover lexis and grammar that is, in principle, available, learners' use of the practice reflects the *need to find **some** way to complete or continue their ongoing utterance*. This marks a clear difference to the advanced learners, whose data quite often indicates that they search because they are *looking for the 'mot juste'* – "the *right* way to say what they want to say" (Gafaranga 2000: 331, emphasis mine).

Evidence for this can be found in cases such as the one in Extract 35, taken from a zoom discussion between university-level learners about educational systems. Mira produces a candidate continuation for her search, but then immediately replaces it with a presumably better-fitting alternative. The extract is part of a long turn produced by Mira in which she presents her stance on a quote on the discussion card that teaching

should be personalised. Just prior to the beginning of the excerpt itself, Mira notes that she agrees with the author's ideas. However, she goes on to say, implementing those ideas presents numerous problems for teachers (lines 01-04).

Extract 35: ideas and needs (SR-DE, 4:07-4:31)

```
01   Mir:   you know it's quite hard to actually DO
            it;
            >>looks at screen-->
02          (1.3)
03   Mir:   you know | saying it and (.) liking the
            idea is ONE thing-
04          (0.4) but (.) being a TEAcher;
05          and try*ing: to BE there for every single
                  *gaze slightly moves right-->
            *child;
            *gaze centres again-->
06 →        (.) and t+o: (0.3) *~act on thei::r (0.4)
                                *gazes up-->
                                ~raises LH-->
   →        öhm*: ((click))_i don't know i~DEas;  ~ | and
              *slightly gazes
               right-->
                                    ~LH
                                     circles~
   →        *~NEEDS,      ~
            *gazes at screen-->>
             ~LH circles~
07          (0.3) it's +quite DIFficult.
                       +head slightly tilted right-->>
```

In particular, Mira argues that paying equal, individual attention to all pupils would be difficult to do (lines 05-06). It is here that Mira encounters lexical trouble. Following a shorter halt in progressivity near the beginning of line 06, she more notably suspends her TCU at a point where a noun phrase head is expectable next. She first lengthens the determiner `thei::r`, then follows up on this with an unfilled pause and a hesitation marker. Quite possibly in anticipation of the upcoming problem, Mira had already withdrawn her gaze from the screen prior to the speech perturbations (on `act`). Some slight gaze movement is visible when she produces the hesitation marker, but she maintains the gaze withdrawal even beyond the candidate continuation, `iDEas`. This

provides some evidence already that `iDEas` is not the the exact item Mira was aiming to find. Further support is supplied by the hedging metacomment (`i don't know`) prefacing the candidate, and the subsequent production of another candidate (`NEEDS`). It is only upon producing this item that Mira finally redirects her gaze to the screen, and therefore indicates bodily-visually that the issue has been fully resolved.[47]

A similar instance can be found in Extract 36, taken from the face-to-face discussion between university-level learners. Just prior to this snippet, the participants talked about negative consequences of making personal data (e.g., private photos) available online and not considering that it often cannot be (fully) deleted afterwards. Zahra noted that while currently this is perceived as a serious issue, that might change once it has become the norm for people to document their lives through social media. Youthful indiscretions may then no longer be considered a potential threat for job application processes, for instance. Lisbeth now argues that researching an applicant online will likely still be standard practice, but employers may become more discerning about which parts of their findings to include into their decision-making process. A part of this utterance is depicted in lines 01-04.

Extract 36: old data (CeLE-P, ELF_02, 24:17-24:33)
```
01   Lis:    °h they they still look for them onLINE;
02           °h but_(.)_things that (-) uhm: (0.7)
03           ((clicks)) °h you know all the O:LD data;
04   Lis:    (uh) *+things ~that  are  no~ longer +relevant
                  *looks at Zahra-->
                   +turns head to Zahra          +tilts head
                                                   back, moves
                                                   it right-->
                       ~LH moved left~
```

---

[47] Notably, `NEEDS` is not produced as a continuation of the candidate solution via `iDEas`, even though the coordinator 'and' may suggest this. There is a noticeable cesura (Barth-Weingarten 2016) after the first candidate, displaying that upon the production of `iDEas`, there had not yet been a projection that the solution would entail coordination.

```
  →            ~for the per+son~ +°h▫*      (1.2)        ▫*+
               ~hands cupped at
                chest height   ~
                            +       +brief head tilt back  +
                                    ▫mouth opens, then
                                      lip movement      ▫
                                    *shifts gaze right*
  →            *+~s:tanding right | or~ S*+IT~ting right | (.)
               *looks at Bastien        *at Zahra-->
                +turns head to Bastien    +to Zahra-->
                 ~shakes hands         ~     ~RH moved back and
                                                forth, repeated-->>
               across *+from yo[u;]
                      *looks at Bastien-->>
                       +turns head to Bastien-->>
   05   Bas:               [ y]eah
```

As Lisbeth talks about what kinds of 'things' are likely to be treated as less relevant for employment decisions in the future, she halts her incipient unit just after producing a noun (`person`, line 04), but before the TCU reaches a point at which it is fully recognisable who that noun refers to: Some post-modification of the noun is clearly projected via the definite article serving as its determiner. During the extended unfilled pause that follows, Lisbeth withdraws her gaze from Zahra, and visibly moves her lips. She also suspends the movement of her hands, which she has cupped in front of her. That movement is resumed as she produces a candidate continuation (`s:tanding right`). Simultaneously, Lisbeth turns to Bastien. However, the lengthened onset of the candidate indicates some hesitancy regarding its use, similar to but less explicit than the metacomment in Extract 35. That Lisbeth does not entirely consider it the best-fitting continuation is further displayed through the production of a replacement (`SITting right`), which here clearly is designed as such via the contrastive conjunction `or`. In addition to this, Lisbeth reorients her gaze from Bastien to Zahra and changes her gesture: She now moves her right hand in a back-and-forth movement which continues for the rest of the TCU. Notably, it is this second candidate that carries the focus accent, further supporting the impression that it constitutes the precise item searched for, or at least the better alternative.

In other cases of searching found in the advanced-level data, the participants first show that they are well able to verbalise themselves by producing a paraphrase of the

searchable, but then proceed to provide a candidate fitting the original syntactic projection anyway. This serves as another type of evidence that they conduct searches in order to find not just any way of continuing an utterance, but the 'just-right' one. Extract 36 (reproduced and refocused here as Extract 36') also provides one example of this.

Extract 36': old data (CeLE-P, ELF_02, 24:17-24:33)

```
01   Lis:    °h they they still look for them onLINE;
                >>looks at Zahra-->
02 →         °h but_#~*(.)_things that#  ~ *(-) uhm:
                    # straightens      #
                    ~puts hands on table~
                      *withdraws gaze      *moves gaze left-->


   →         ~                  (0.7)              ~
                ~hands interlocked, then steepled~
03 →         ▫((clicks)) °h▫  you know ~all the*+ O:LD    +*data;
             ▫opens mouth  ▫
                                      ~LH slides away and
                                        back twice-->
                                             *turns gaze
                                             to Zahra,
                                             then Bast.*
                                             +turns to
                                              Bastien +
04   Bas:    hm
05 → Lis:    (uh) *+things ~that  are  no~ longer +relevant
                  *looks at Zahra-->>
                   +turns head to Zahra          +tilts head
                                                   back, moves
                                                   it right-->>
                          ~LH moved left~
             for the person °h (1.2) s:tanding right | or
             SITting right | (.) across from yo[u;]
06   Bas:                                       [ y]eah
```

Similar to the case I previously discussed, Lisbeth suspends the progress of her TCU at a point where post-modification for a noun is clearly projected, and essential for recognition of the referent (line 02). Rather than producing a candidate continuation

172

of the relative clause in progress, however, Lisbeth paraphrases it (`all the o:ld DAta`, line 03), as is recognisable not only by the syntactic discontinuity, but also the discourse marker `you know`. At this point, she does not yet return her gaze fully to Zahra, from whom she had withdrawn it prior to the halt in progress. She first turns to Bastien, who then produces a continuer and thus displays understanding (line 04). Here, Lisbeth could have resumed her argument by indicating what might (not) be done with 'old data' in the future. However, she delays the general progress, instead restarting and continuing the noun phrase she originally projected (`things that are no longer relevant`, line 05). It is at this point that she fully reorients back to Zahra, thus also providing embodied indication that the issue has been resolved.

In the context of searches, it is only the advanced-level learners who provide such clear evidence that their self-initiations of repair can be motivated by the aim to find the 'mot juste', and who thus can display orientation to interactional concerns rather than a need to deal with linguistic gaps. This is not to say, however, that learners at intermediary level cannot pursue similar goals. Gunnar, for instance, showcases awareness for subtle differences between pronouns in Extract 37. This stretch of talk is produced very early during the role-play. After Gunnar challenged Maik's suggestion to watch a football match during the TV night by citing that Maik has the opportunity to do so every weekend, Maik argued that he does not know anything about ice hockey, which is Gunnar's preference. He noted that Gunnar, on the other hand, is familiar with football, making this the option that the participants are more likely to both enjoy. Now, Gunnar starts countering this argument.

Extract 37: see every weekend (SSL_191108_3, 2:36-2:41)
```
01 → Gun:   mh_but (.) you w you w*e:: (0.3) ? <<:-)>see>
            >>looking at Maik     *withdraws gaze
                                   from Maik-->

            *every WEEKend._?
            *gazes at Maik-->>
02          FOOTball.
```

Gunnar clearly struggles with his pronoun choice here, switching several times between (attempts at) the second person singular pronoun 'you' and the first person plural pronoun 'we'. Notably, both of these pronouns would grammatically fit in this position, but they clearly imply different arguments. Using 'you' would be reminiscent

of his previous turn, in which he challenged Maik's suggestion by noting that 'every weekend see you … football on the TV' and thus framed football as interesting to Maik only. By employing 'we', however, Gunnar can indicate that watching football is an activity that Gunnar regularly engages in together with Maik, and that it would therefore be equitable to watch ice hockey on this occasion.

I have shown in section 5.2.5 that in comparison with his peers, Gunnar uses bricolage very rarely, and that this may indicate that he is among the most advanced learners in his group regarding L2 repair skills. Additional evidence to that end is to be found in his first tendencies to utilise SIR to deal not only with linguistic issues, but also with more interactional concerns. In this regard, he approaches the advanced-level learners' conduct.

In this section, I have shown that

- across learner levels, some diversification is observable regarding the *trouble sources occasioning the utilisation of searches*. At novice level, searches are exclusively lexical in nature. While lexis remains the most common trouble source throughout all my data sets, at intermediary level my learners start occasionally displaying trouble with finding a "correct [or, suitable, SR] syntactic structure" (Koshik & Seo 2012: 176). Just like for bricolage, it may be that the lack of grammatical searches in the beginner-level data is (at least partly) due to the fact that their tasks usually do not require the learners to (spontaneously) produce whole units by themselves. Again, then, further research (based on data requiring learners of all levels to produce their own turns) could provide more insight into possible changes over time regarding searchables.

- there is quite some evidence that at novice and intermediary level, learners use the practice of searching to deal with unavailabilities caused by linguistic issues: Whatever the specific searchable at the time, my lower-level learners can often be seen to struggle with fully producing the ongoing unit. In contrast to this, the advanced-level learners often indicate that their searches serve to find a 'mot juste' – they are not only orienting to a need to make themselves understandable, but also to the desire to express themselves in as precise a manner as possible.

The latter aspect in particular displays growing L2 repair skills, and allows me to propose a candidate criterial feature. Advanced learners show that they are able to utilise

searches for varied purposes. They do not only draw on this practice to complete their units-in-progress, and to thus accomplish social action, but they also conduct searches to *optimise* their turn design. Thus, my analysis shows that as learners advance, in addition to the diversification of search techniques available to participants reported on by Pekarek Doehler & Berger (2019), there is a *diversification of the practice* itself with regard to what can be accomplished with it. That is, learners show increasingly sophisticated repair skills by being able to use the same practice more flexibly. With all this in mind, it appears learners could be assigned to a general level by taking into consideration which underlying issues motivate their use of searches – in particular, *whether, and how often, 'optimising searches' occur*. At present, this feature most clearly distinguishes the advanced-level learners from those on lower levels. However, there is some indication that SIR can generally be done for turn-design optimisation purposes: One of the 7th-graders, Gunnar, can be observed to initiate repair to choose the 'just-right' item for the context and action at hand (see Figure 8), though he does not employ a search.

	Tim	Arne	Maik	Leo	Gunnar
repair is initiated to optimise turn-design					▓

Figure 8. 7th-graders' use of optimising repair

As such, future research may reveal that the candidate criterion proposed here is not contingent on the use of a specific SIR practice, and may be used to rank learners of one cohort as well. Given the rarity of this kind of 'optimising repair' in my lower-level collections, however, far more extensive data would be needed for this venture.

In sum, my analyses provide illustration for two general observations (see Figure 9). Together, they suggest that as learners become more accomplished L2 users, their use of searching as a practice for self-initiating repair diversifies.
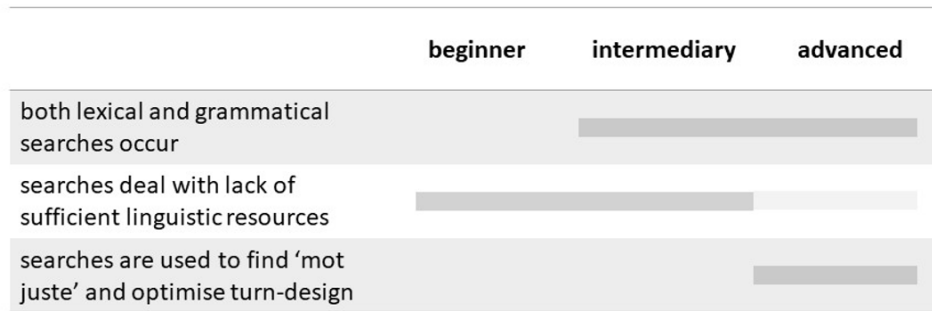
Figure 9. Searchables and issues necessitating searches across learner levels

To conclude this second main analysis section, I will now provide a (first and relatively brief) discussion of which insight may be gained by considering the *design features* learners draw on for doing searching.

5.2.7 Learners' Search Designs: Verbal and Bodily-Visual Cues

Overall, there is much similarity between the learner groups with regard to how searches are designed. There is one clear exception, though: The members of the 7th-grader cohort noticeably deviate from the pattern that can otherwise be traced from the beginner-level data onwards, in that

- in all other learner groups, the common verbal design of searches features an unfilled pause as the vastly most frequent cue, usually accompanied by sound lengthening, whereas hesitation markers are not infrequent as such, but only occur in about half of the cases. The 7th-graders, however, produce a hesitation marker in nearly all instances of searching, whereas unfilled pauses only occur in half of the cases. As a result, the most common verbal design at that level features a combination of a hesitation marker and sound lengthening.

- active gaze withdrawal upon, or in anticipation of, the verbal halt in progressivity is far less frequent in the 7th-graders' data than in any of my other data sets. With the novice learners, the higher-intermediary learners and the advanced learners, cases featuring gaze withdrawal still do not constitute the majority, but they always amount to at least a third of the cases I investigated.

- the 7th-graders notably show least utilisation of bodily-visual cues, drawing only on the very occasional circling hand motion in that regard. In all other data sets, bodily-visual features are more frequently employed, and often also more diverse in nature.

176

Extract 23' below (partially reproduced from Extract 23) provides a fairly typical example of a search as designed by the 7th-graders.

Extract 23': was heißt bestellen (SSL_191108_5, 8:05-8:09)

```
01 → Mai:   ((click)) oKAY;=$burger we ca$§n:      $äh °hh
      mai:   >>looks down-left                $moves gaze
                                               right-->
      mai:                    $lifts RH   $RH moves $RH scrat-
                                           to left  ches left
                                           ear      cheek-->
      leo:   >>looks at Maik-->
    →        äh::
02 →         <<Ger, whispering>§was heißt
                                how do I say
      mai:                    §gaze and head
                               turn to Res-->>
    →        be%STELlen%;>_<<:-)> h°>
             'bestellen'
      mai:      %smiles %
```

Maik starts the halt in progressivity in line 01 with sound lengthening, followed by two hesitation markers and an other-directed question (line 02). His gaze is already withheld from Leo at the beginning of the TCU, so there is no active gaze withdrawal.

A possible developmental trajectory across learner levels is revealed by reviewing which embodied features (beyond gaze) and additional verbal cues (i.e., beyond hesitation markers, unfilled pauses, sound lengthening) are employed by the learners when designing searches. As regards non-gaze bodily-visual cues, they steadily become more frequently used across levels, apart from the drop in use displayed by the 7th-graders. At the advanced level, my learners draw on a diverse set of embodied design cues. Recurrently, they suspend some ongoing (usually hand) movement. One example of this can be found in Extract 36 above. There, Lisbeth can also be observed to move her lips, another bodily-visual cue repeatedly used at that level. Further insight into the range of cues available to my advanced learners is found in the zoom discussion: In Extract 38 (a snippet of a case which I will fully discuss in section 5.3), Mira repeatedly carries out a fairly iconic manual gesture representative of putting something into a drawer. On another occasion, Mira accompanies her search with a pronounced frown.

Extract 38: she labelled you (SR-DE, 14:01-14:06)

```
05 → Mir:    sh:e had put me: ~(1.7) in like
                            ~RH moved in into-out-of
                             motion twice, then into-
                             motion-->
     →           a DRAW~(er),_((laug[hs))]
                   ~
```

As regards additional verbal features, while they are not particularly frequent at any level, the advanced-level learners once again draw on them more regularly than all other learner groups. In line with Pekarek Doehler & Berger's (2019) findings, only the advanced learners utilise try-marking. Furthermore, they recurrently recycle function words and use metacommentary.

In sum, my data provides support for previous observations that higher-level learners display access to a more diverse inventory of interactional resources. It also shows that they are able to draw on these cues to quite precisely indicate the boundaries of their searches (e.g., suspended gestures, Extract 36), locate the searchable (e.g., via try-marking) or provide clues to the item being searched for (see Extract 38). Some broadening of resource inventories can already be observed in the intermediary-level data, if learners are considered individually. Table 4[48] provides an overview of my findings on that matter.

Table 4: Design cues used by the 7th-grader cohort for searching

	Arne	Maik	Leo	Gunnar
gestural	- none	- yes, rarely; circling hand motion	- yes, rarely; circling hand motion	- none
verbal	- basic verbal design features only	- basic verbal design features - additionally: cut-off, recycling, meta-question	- basic verbal design features - additionally: recycling	- basic verbal design features only

Notably, Maik and Leo draw on both non-gaze gestural conduct, and additional verbal means. For instance, they occasionally employ a circling hand gesture, an example of which is contained in Extract 39.

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[48] As Tim did not produce any instances of searching, he is not included in this table.

178

Extract 39: so long we have (SSL_191108_5, 4:55-5:16)

```
01    Leo:    ((click)) °h no i think sailing is BETter;=
02            =°h becau(se) they_are (0.6) ALL the week,
03 →          and we can: look (--) äh_~w (0.3)
                                  ~circles
                                  RH-->
   →          ä:~hm ((click)) ~ (-) ä:h ~ (°h) so long: (.)
                 ~              ~moves RH
                                slightly~
   →          ~we: °hh   äh_we   HA~VE;
              ~slight RH movement~
```

Close to the beginning of the halt in progressivity in line 03, and simultaneously to the first two hesitation markers, Leo moves his right hand in a vaguely circular manner. Additional slight movement of that hand is visible later during the same halt. In terms of verbal cues, Maik and Leo also utilise metaquestions (see, e.g., Extract 23'), cut-offs and recycling to design their searches. In short, they display access to a broader range of cues for SIR than their classmates – in this, they show some similarities to the patterns described for the advanced-level learners. However, while this indicates the *potential to diversify their search designs* beyond the basic verbal cues noted above, Maik and Leo do not yet display the ability to precisely use design features in the same manner as the higher-level learners.

I summarise the observations I have discussed in this section in Figure 10.

	beginner	intermediary	advanced
core verbal design feature	unfilled pause	hesitat. marker (lower-int.)	unfilled pause
diversity of bodily-visual cues employed			
utilisation of additional verbal cues			
precise use of design cues			

Figure 10. Design features of searches across learner levels

On the basis of these observations, I propose that learners at different levels show various degrees of L2 repair skills through the *diversity of bodily-verbal resources* they draw on to precisely design their searches, and that they can be distinguished on that

basis[49]. This applies particularly to bodily-visual cues such as gestures and facial expressions, but also – to a lesser extent – to additional verbal features. In line with prior observations (e.g. Pekarek Doehler & Berger 2019), at higher levels, learners display access to an increasingly diverse inventory of features, which they can use in a very precise manner to accomplish interactional tasks. Once again, this candidate criterial feature most clearly distinguishes the advanced-level learners from those at lower levels, although future research may reveal that it can also be utilised to rank learners within lower-level groups. Beyond this, further investigation also appears pertinent to gain a better picture of

- the use of gaze throughout searches. While my data is inconclusive in that regard, prior research (e.g. Barth-Weingarten 2021) shows that with a larger data base comprising performances by more learners, analyses may reveal striking patterns. My data merely reveals hints that through their gaze behaviour, some intermediary-level learners may show that they approach the advanced level.

- the role of hesitation markers. My data suggests that at (lower) intermediary level only, hesitation markers are used as the core verbal design feature for searching. Future analyses need to solidify or disprove this, and, if they do the former, explain this phenomenon.

5.2.8 Summary

My point of departure for this chapter was a frequently used SIR practice, the 'search'. First, I contrasted searching with a related practice, bricolage, which frequently occurs in my intermediary-level data. I discussed in how far the (frequency of) occurrence of bricolage serves as a display of limited L2 repair skills, and showed that additional evidence to that effect emerges from considering qualitative differences between instances of bricolage.

I then explored differences between my learners in terms of the searchables, and general underlying issues, that necessitate their utilisation of searches, as well as with regard to the design cues that they deploy when using this practice. This revealed support for Pekarek Doehler & Berger's (2019) observation that over time, learners diversify their means for doing searching, enabling them to use them in an increasingly precise manner. It also allowed me to suggest an additional dimension to this general

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[49] For a similar point regarding the insight into L2 IC afforded by investigating the design features utilised by learners to accomplish social actions, see Eskildsen & Cadierno (2020: 540).

tendency of diversification, namely that the practice itself diversifies in terms of what it can be used to accomplish.

Based on my general observations, I was able to posit a number of candidate criterial features. Currently, it appears that these may be most clearly useful for ascertaining whether or not a learner already has reached the advanced level.

As I analysed my data, it came to my attention that my learners recurrently use their L1, German, in the context of repair. In particular, I started noticing that while at all levels, they could be found to straightforwardly draw on their L1 by shifting to that language while dealing with interactional trouble, a subtler L1-based practice of repair occurred as well. From the intermediary level onwards, my learners occasionally respond to the unavailability of a next-due item or unit by producing L2 talk recognisable as a verbatim translation of an L1 design (lexical and/or syntactic). This observation motivated me to specifically focus on the use of L1-based practices of repair in my data, which is the focus of the next section.

5.3 L1-based Practices of Repair

One topic of interest investigated by studies on interaction between or involving for-eign language speakers is how such participants may draw on, or otherwise orient to, their L1 while they are engaged in L2 interaction. Consequently, there is a growing body of research investigating language alternation as an interactional practice (see Markee & Kunitz 2015: 433-434 for a literature overview), often with a particular focus on code-switching.

5.3.1 Language Alternation and Code-Switching: Terminological Remarks

It has been noted that language alternation and code-switching often are treated as synonyms (Markee & Kunitz 2015: 435, fn 2). However, a closer look at how these terms are used in central studies which discuss code-switching from a CA perspective reveals that they indeed refer to two different concepts (see, e.g., Gafaranga 2000: 327, fn.1). *Language alternation* is defined as a general term referring to "[a]ny use of two languages within the same conversation[50]" (ibid.), encompassing all phenomena that involve the use of two (or more) languages so that a given interactional encounter becomes recognisable as an instance of 'bilingual talk' (Auer 1999: 309; Auer 2011: 460). *Code-switching*, then, is one type of language alternation, one that may be con-trasted with code-mixing (or, language mixing; Auer 1999: 309; see also Auer & East-man 2010: 87). Code-switching has prominently been defined as those cases of lan-guage alternation "in which the juxtaposition of two codes (languages) is perceived and interpreted as a locally meaningful action by participants" (Auer 1999: 310). To categorise something as an instance of code-switching, the participants themselves need to treat the shift from one language into another as a purposeful departure from the medium of interaction collaboratively established at that point (ibid.: 312, 314; see also Gafaranga 2000: 327, fn. 1). It is one constitutive feature of code-switching that it occurs "in a sociolinguistic context in which speakers orient towards a preference for one language at a time; that is, it is usually possible to identify the language-of-interaction which is valid at a given moment" (Auer 1999: 311-312). Code-mixing, on the other hand, refers to instances in which the medium of interaction itself is bilingual

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[50] It is unclear if Gafaranga (2000) means to restrict his terminology to conversational (i.e., informal, non-institutional) interaction. His use of the term to refer to instances of what appears to be institutional talk (e.g. ibid.: p. 342) suggests that he utilises 'conversation' in a manner roughly equivalent to the term 'talk-in-interaction'.

in nature, and "the use of two languages is meaningful (to participants) not in a local but only in a more global sense" (:310).[51]

While I acknowledge the concerns that have been raised regarding potential issues of distinguishing between genuine cases of code-switching on a lexical level (or, 'insertional code-switching'; ibid.: 314) and drawing on established loan words (Auer 2011: 462; Auer & Eastman 2010: 86), I argue that this is not a problem I will face in my analyses. I am investigating language learners' use of their L1 as they encounter trouble with interacting in their L2. When they draw on a German item in that kind of context, they regularly indicate they are indeed deviating from the medium of interaction – and thus, that the item in question is *not* an established loanword which could substitute for a corresponding, 'non-borrowed' English item. Furthermore, as I have shown in section 5.2.6, one of the central concerns for lower-level L2 learners is to establish a solid lexical fundament. It is unlikely that these learners already have enough of a knowledge of genuine German loanwords in English (rather than 'false friends') so that they could utilise them as available 'L2'-items.

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[51] To illustrate the phenomenon of code-mixing, Auer (1999: 314-315) provides the following example of an exchange in which both participants clearly do not orient to either (Swiss) German or Italian as the medium of interaction, but freely shift between the languages.

> Extract IV (Preziosa Di Quinzio, 1992, quoted from ibid.)
> [Italian immigrants in Switzerland, Swiss German dialect and Italian (underlined); author's [Auer 1999, SR] transcription conventions]
> p11: *perché meinsch* che se tu ti mangi *emmentaler* o se tu ti mangi una fontina *isch au*
> 'because, you mean, if you eat Emmental cheese or if you eat Fontina cheese, there is also
> *en unterschied, oder? schlussändlich* è sempre dentro lì però il gusto *isch andersch.*
> there is also a difference, isn't there? Actually, it's still there, but the taste is different'
> p6: *è vero!*
> 'that's right!'
>
> ((ommission [sic!]))
>
> p11: *es git verschiedeni fondue aso die heisset verschiedä, aso ja das isch en*
> 'there are different kinds of fondue, they have different names, well there's a
> *himmelwiitä unterschied* se prendi questo o se prendi il *chäs normal.*
> huge difference whether you take that one or whether you take the ordinary cheese.'
> p6: *ehrlich! beh, zum biispil* io raclettechäs lo prendo sempre fresco [...]
> 'really! well, for instance me, raclette cheese I always get it fresh […]'

While code-switches generally fulfil local interactional functions, Auer argues that cases of code-mixing such as this one constitute language alternation that neither can be shown to correspond to specific interactional contingencies (e.g., lack of 'competence' in a language), nor does it "seen [sic!] to have local meaning" (ibid.: 315).

In this chapter, then, I will adopt the terminological distinction between language alternation and code-switching detailed above, although I will forego any subclassifications such as the one separating 'alternational' and 'insertional' code-switching (Auer 1999: 313-314; Auer & Eastman 2010: 98). Any instance in which my learners treat a shift into the L1 as a notable deviation from the current medium of interaction (i.e., the L2)[52] will be eligible for inclusion into the collection of code-switches[53].

5.3.2 Prior Research on Code-Switching and Other L1-based Practices of Repair

While code-switching is not the only way in which learners may draw on their L1 as they deal with trouble (or work on other interactional tasks), it is the by far most well-researched one. It will therefore be the main focus of this section, although I will very briefly review findings on other L1-based practices of repair as well.

Very often, research on code-switching focuses on the use of the phenomenon in institutional contexts. These are usually related to L2 learning, although they may vary significantly in terms of their formality and degree of conversationality – the data researched may stem from oral proficiency tests (Nyroos et al. 2017), L2 classroom contexts (Amir & Musk 2013; Bonacina & Gafaranga 2011; Lehti-Eklund 2013; Mori 2004), content classrooms (Duran et al. 2019), unscripted focus group sessions (Greer 2013) or institutionally organised, but informal meetings between L1 and L2 speakers (Kasper 2004). There also are studies which investigate code-switching in everyday conversation between bilinguals (e.g. Piirainen-Marsh 2010). Regardless of the type of interaction researched, these studies offer strong support for Auer's (1999: 312) claim that the identification of code-switches cannot be based on 'linguistic facts', but must be approached emically: Whether any given shift from one language into another constitutes a deviation from an established medium of interaction (and thus an instance of code-switching) depends on what is being treated as the medium by the *participants*, in situ (Bonacina & Gafaranga 2011: 321; see also Piirainen-Marsh 2010: 3019). On any occasion, interactants may showcase orientation to the L1 or L2 as the 'language-

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[52] While the reverse directionality is possible, in my data the learners' L2 (English) almost always constitutes the explicitly acknowledged, or at least implicitly observable, medium of interaction. Hence, there are no instances of code-switching from L1 to L2 in my collection of cases.

[53] In future research, the question of which kinds of conduct constitute such treatment should be revisited, to further refine which instances of language alternation may be considered code-switching, and thus should be included in the latter category.

of-interaction' (Auer & Eastman 2010: 97) by utilising the other language as a resource for accomplishing some local interactional purpose, or they may orient to a shared medium of interaction that is bilingual in nature by co-producing instances of code-mixing. Thus, even in those cases in which the language-of-interaction seemingly is externally determined, such as when the foreign language is the official medium of instruction in L2 classroom interaction, it still must be established whether, and to which extent, this 'policy-as-workplan' (Amir & Musk 2013: 153) overlaps with the actual medium of interaction (Bonacina & Gafaranga 2011: 325-327), and therefore with the 'policy-in-progress' (Amir & Musk 2013: 153). Often, there is such an over-lap, so that instances of code-switching can be identified, and may possibly trigger language policing (ibid.: 156-157; see also Bonacina & Gafaranga 2011: 325-326). Still, it is apparent that even though L2 teaching practitioners may follow the notion that the language classroom should remain free of L1 use (Cummins 2007: 222), thus implementing an L2-only policy, the interactional reality in the classroom often does not correspond to such a strong prescription.

Literature shows that learners may draw on code-switching to their L1 as a practice for addressing a range of interactional needs, such as

- organising their talk (e.g. Piirainen-Marsh 2010: 3027),
- preventing possible trouble in speaking and the associated halt in progressivity (e.g. Kasper 2004: 559-560), or
- managing manifest trouble (e.g. Gafaranga 2000: 339).

Code-switching can, for instance, be used to mark sequential boundaries. Piirainen-Marsh (2010) shows that by shifting to their L1, participants engaged in a gaming activity indicate boundaries between different sub-activities (:3027). Within classroom interaction and other types of institutional talk, code-switching to L1 usually indicates a shift from the main activity to 'metalanguage talk' (Mori 2004: 541; see also Kasper 2004: 563), most commonly a repair sequence (Greer 2013: 111; Kasper 2004: 558-559), the resolution of which has been observed to coincide with the return to the L2 (Lehti-Eklund 2013: 138-144; Mori 2004: 541-544).

According to previous research, it is not that switching from the second to the first language just frequently coincides with repair – rather, there is evidence that L2 speakers draw on that practice to accomplish different aspects of repair work. For instance, the shift to the L1 may serve as an SIR cue, either indicating the need for assistance and therefore working towards other-repair (Kasper 2004: 558-559; Mori 2004: 542;

Pekarek Doehler & Berger 2019: 56-57), or indexing an ongoing attempt at self-repairing, thus attempting to forestall speaker change (Nyroos et al. 2017: 2, 13). Code-switching to L1 may also be employed as a means for other-initiating repair (Lehti-Eklund 2013: 138-144), or for producing a candidate continuation to resolve a search (Duran et al. 2019: 6-10; Gafaranga 2000: 336; Greer 2013: 105-107). In the latter case, research has shown that the code-switch may be symptomatic for a lack of sufficient L2 proficiency (Gafaranga 2000: 329; Kasper 2004: 558), but it may also index a lexical gap within the L2, that is, the (purported or actual) lack of any lexical item that a speaker could draw on to express a specific concept (Greer 2013: 105-107).

Very often, participants explicitly orient to such repair-related uses of their L1 as deviations from the current 'language-of-interaction' (Auer & Eastman 2010: 97). As mentioned above, they tend to switch back to the L2 as soon as the trouble is resolved, but participants may also indicate in other ways that they consider the L2 to be the normative 'base code' (Bonacina & Gafaranga 2011: 322), and their repair to be 'medium repair' (Gafaranga 2000: 336). A fairly explicit indication that they do not regard drawing on the L1 as a (fully) legitimate means would be to carry out extended attempts at finding an L2 solution for the issue at hand, since this presents the code-switch as a 'last choice' (Duran et al. 2019: 15). Alternatively, learners may follow up on their own, or others', L1 candidate solution with some further repair (e.g., an L2 paraphrase; Greer 2013: 107, 114), a translation into the L2 (Duran et al. 2019: 8; Gafaranga 2000: 338) or laughter (Duran et al. 2019: 14).

Beyond straightforwardly falling back on their L1 through code-switching, participants may also draw on it in other, perhaps less explicit ways. One example is provided by Hosoda (2000), who shows that in L2 interaction, learners tend to underuse L2-specific repair initiation resources, in favour of drawing on those means that are similar to, and therefore familiar from, their L1 (:48). Additionally, Greer (2013: 112) suggests that L2 speakers may try to resolve issues by attempting "a fairly literal … translation" of a non-L2 utterance into the L2. Tarone (1981: 286) more specifically lists 'literal translation' from the L1 into the L2 among the communication strategies which are available to L2 learners to compensate for linguistic gaps. To my knowledge, this phenomenon has not yet received much attention in CA(-SLA) or IL research. One focus of this chapter will be to explore cases of what I will call 'ad-hoc translations', and

how they may be utilised for repair purposes, in particular to deal with the unavailability of a next-due item or unit.

5.3.3 L1-based Practices of Repair: Established Developmental Trajectories

While there have been quite a number of studies exploring the use of the L1 as a resource for accomplishing repair tasks, there is little previous research on changes in this use across learner levels, with two exceptions. Both Lehti-Eklund (2013) and Pekarek Doehler & Berger (2019) indicate that over time, language learners stop drawing on their L1 in order to initiate repair. Lehti-Eklund (2013), who herself establishes that the 5th-year L2 Swedish students she investigated (:136) use their L1 to other-initiate repair and thus start a side-sequence, makes reference to prior research indicating that Swedish learners at university level do not do so any longer (Green-Vänttinen & Lehti-Eklund 2007, as referenced ibid.: 143). Pekarek Doehler & Berger (2019) show that their L2 French learner, who at the beginning of the data acquisition period was noted to be on upper intermediate level, starts out by drawing on her L1 to self-initiate a search and request assistance in resolving it (:56-57), but does not do so any longer during later recordings (:61). These findings suggest that the extent to which L2 learners use their L1 for repair initiation may be a possible criterion for distinguishing between learner levels, and between (upper-) intermediate and advanced learners in particular.[54]

My own analyses also show that there are differences between learner levels regarding the utilisation of the L1 for repair purposes. For one, it appears that depending on their level, the range of repair-related tasks (e.g., self- and other-initiation, self- and other-repair) for which my learners draw on German varies. Furthermore, higher-level learners' use of the L1 goes beyond straightforward code-switching. Most strikingly, however, there are differences in how my learners treat their using the L1 when attempting to resolve the unavailability of a next-due item or unit.

In particular, it appears that as they advance through levels, L2 learners

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[54] While they do not explicate if the code-switches occurring in their data constitute language alternation to the L1, Skogmyr Marian & Pekarek Doehler (2022: Sect. 4.2.3, para. 2-4) note that while A2-level learners of French often resolve searches by producing a non-L2 candidate continuation, B2-level learners tend to successfully deal with such issues by utilising L2 means. Higher-level learners therefore may, in addition to showing less dependence on their L1 for repair initiation, also become less reliant on other languages than the L2 (including the L1) for self-repair.

- stop drawing on their L1 to accomplish repair initiation (and, potentially, other-repair);

- start using an additional L1-based repair practice, 'ad-hoc translations';

- progressively problematise the use of their L1 as a resource for self-repair. Drawing on the L1 to resolve the unavailability of something due next is increasingly treated as non-permissible and unacceptable, and thus indicates the learners' growing awareness that L1-based practices constitute part of their inventory of repair methods.

5.3.4 Learners' Use of their L1 across the Repair Process

My learners mostly utilise their L1 in order to attempt to resolve their own problems of speaking – specifically, they tend to use German as a resource for dealing with the unavailability of a next-due item or unit (see section 5.3.5). At lower levels, however, there also are some few cases in which they draw on it for other repair-related tasks.

5.3.4.1 Learners' Use of their L1 for Repair Initiation

The data shows that my learners only occasionally fall back on their first language when *initiating* repair. Since in my data, cases of SIR vastly outnumber instances of OIR (see section 5.1), it is unsurprising that if learners use their L1 to that end, then mostly to *self*-initiate repair. Such is the case for Maik in Extract 23'' below, again reproduced from Extract 23. After having come to an agreement with his partner on what they should watch during their TV night, Maik has moved on to the next project indicated by the role-card, namely, a discussion of the food they will have during their get-together. Maik has already made his own suggestion, which his partner Leo has indicated agreement to for the most part, although he does add that he would like to have burgers.

Extract 23'': was heißt bestellen (SSL_191108_5, 8:05-8:18)
```
01   Mai:   ((click)) oKAY;=$burger we ca$§n:      $äh °hh
     mai:   >>looks down-left             $moves gaze
                                           right-->
     mai:                  $lifts RH   $RH moves $RH scrat-
                                        to left  ches left
                                        ear      cheek-->
     leo:   >>looks at Maik-->
            äh::
```

```
02 →          <<Ger, whispering>§was heißt
                                 how do I say
     mai:                        §gaze and head
                                  turn to Res-->>
   →          be*%STELlen%;>_<<:-)> h°>
              'bestellen'
     mai:      %smiles %
     leo:     *looks at Res-->
03   Res:   ((click)) <<whispering> ORder-> (0.5)$*
     mai:                                    $lowers RH
                                              from left
                                              cheek
     leo:                                     *looks at
                                               Maik-->>
04          [((click)) ORder,]
05   Mai:   [     uh      ]
06          ORder (.) burger f_from: °h (ä:h/ö:h ä:h/ö:h)
            <<Ger> lieferdienst;>_<<:-)> h°>
                   delivery service
```

After beginning his response, Maik soon indicates that he has encountered an issue by self-initiating repair (line 01). A first cue is the lengthening on the modal verb, which then is followed by multiple hesitation markers and an expanded in-breath. At the same time, Maik turns his head and gaze from his left to his right. While he had not been gazing at Leo, who is sitting to his left, prior to the halt in progressivity, this movement marks a clear (additional) withdrawal from him and a first reorientation to the researcher. After the second hesitation marker, he fully turns to the researcher, establishing eye contact with her as he requests assistance. The vocabulary question he produces to that end is formulated in German (was heißt beSTELlen; line 02). In drawing on his L1, he relies on his awareness that the researcher is an L1 speaker of German herself, and that therefore, he will be fully understood (see Greer 2013: 105-106). The researcher's prompt response (line 03) confirms that this was a pertinent assumption to make. However, both she and Maik indicate that while switching to the L1 was a serviceable practice for dealing with the lexical issue at hand, it is not a legitimate one in this setting. Maik starts smiling upon producing his vocabulary question (line 02), and follows up on it with an outbreath which his co-participants may perceive as subdued laughter. The researcher produces the searched-for lexical item in a whisper (line 03), possibly in an attempt at prosodically minimising the deviation from the medium of interaction, although she needs to follow up on this with a second, louder attempt at

assisting Maik (line 04) before the issue is successfully resolved, and Maik can resume his TCU (line 06). I will return to those latter observations in section 5.3.6.

In Extract 23'', Maik uses his L1 to produce a vocabulary question, with which he clearly indicates that he requires assistance, and therefore is not about to resolve the search himself. The shift from L2 to L1 thus co-occurs with the point at which Maik terminates his attempt at SISR, and starts orienting towards achieving resolution of his trouble via SIOR. In line with the prior research reviewed in section 5.3.2, then, the switch to German may serve as a boundary cue. Here, however, it does not occur in the context of a transition from the main project into a metalingual activity (Mori 2004; Kasper 2004). Rather, the code-switch coincides with a change in sub-activities within an already well-underway repair process.

Elsewhere, L1 use and (sub-)activity boundaries similarly co-occur as my learners initiate repair. However, while the shift to German invariably coincides with some change within an ongoing repair initiation, there is not necessarily a change in the projected trajectory of the repair instance (e.g., from SISR to SIOR, as in Extract 23''). In Extract 32' (reproduced from Extract 32), Tim noticeably struggles with moving on to the next project on the role-card, as I have discussed in section 5.2.1. Here, a brief shift to German occurs when Tim restarts his TCU, renewing his efforts at accomplishing SISR.

Extract 32': put food (SSL_191108_4, 4:50-5:03)

```
01   Tim:   oKAY;
02          °h ähm::
03          °h (0.8) w:e::_hh°
04   Arn:   (xxx xxx xxx)
     Tim:   ähm: (0.5) can:
05 →        <<Ger> also:> (-) we can put (-) ~    FOOD;      ~
                 i mean

                                            ~LH moves notes~
            (0.7)
06          <<Ger> als(o) (-) JA->
                 i mean           yes
```

His attempt at launching his turn (line 03) is met with extended trouble, indexed by a series of speech perturbations (lengthening, sighing, pausing, a hesitation marker). He is eventually able to resolve the instance of bricolage by producing a TCU he orients

to as possibly complete (line 05). This, however, only occurs after a recognisable re-start of his TCU, prefaced by the German particle `also`.

After engaging in an extensive first attempt at SISR, then, Tim segues into a new stage of his repair instance. Different analyses may be proffered as to when it is clear that this new stage is starting. On the one hand, it might be only upon the recycling of the TCU-so-far that a new attempt at the TCU recognisably starts. Conversely, the use of *also* could be treated as a sufficient cue, as it has been shown that one of the inter-actional uses of this particle is to mark an incipient reformulation of immediately prior talk (Fernández-Villanueva 2007: 108-109)[55]. In the latter case in particular, it could be argued that the L1 item serves as a boundary marker indicating the transition be-tween two attempts at dealing with the same trouble source. Further support for this analysis may be found in line 06, where another instance of *also* occurs. It appears to indicate that Tim considers his prior unit insufficient in some way, thus recognisably continuing the overarching SISR activity (even if it is abandoned shortly thereafter).

In sum, if there is a shift to the L1 in the context of SIR, this usually co-occurs with some juncture within ongoing self-initiation. This may either entail a change in the projected trajectory of the repair instance (e.g., from SISR to SIOR), or a renewed attempt at SISR. In my data, however, language alternation in the context of SIR is only attested in the (lower-)intermediary level learners' data.[56] While my novice learn-ers also use the L1 during repair initiation (see Extract 30, which I previously discussed and reproduce here again), they do so when *other*-initiating repair.

Extract 30'': ja ich weiß (QUA-LiS NRW 02.4, 1:06-1:15)
```
02   Dav:   (1.4)
03          $§ (0.7)
     dan:   $points at poster
     dan:    §moves gaze to Dave, then back to poster-->
04          $ (.) § (1.1)
     dan:   $points at poster
     dan:         §gazes at Dave-->
```

---

[55] Notably, the examples included there (ibid.: 109, ex. 15-16) could be analysed as instances of repair. In that case, *also* would serve as an index for *post-positioned* repair initiation (Schegloff 1979: 273; see also Couper-Kuhlen & Selting 2018: 123). In the cases I discuss, however, *also* may also be used pro-spectively, to deal with a trouble-source not yet (fully) produced.

[56] Such a use of language alternation would, of course, not at all be unexpected in beginner-level learn-ers' talk. Future research will likely be able to provide further insight on this matter.

```
05 → Dan:    $$<<(Ger)> (du  bi§st jetzt an$ der reihe)>
                             it's your turn
   dan:    §looks at poster  §turns gaze to Dave-->
   dan:     $points at poster             $
06  Dav:    +<<Ger, whispering> (ja ich WEISS-)>+
                             yes I know
   dav:    +   slightly nods                +
07          (0.7)
08  Dan:    @i'll TAKE it;
   dan:    @head moves toward Dave-->>>
09  Dav:    i'll TA*KE (i§t);
   dav:          *looks at Dana-->>
   dan:                §looks at poster-->>
```

In my previous discussion of this case, I noted that by pointing at the poster (lines 03-05), Dana treats the absence of Dave's next turn as resulting from an issue of seeing or finding the correct line in the script. When these first attempts at providing Dave with the means to produce the next-due talk remain unsuccessful, Dana additionally produces a metacomment in her L1 (line 05). This line is not well audible, but Dave's subsequent rejecting response (ja ich WEISS, line 06) provides sufficient evidence that what she says amounts to an explication of what is expected of Dave at this point of the role-play. In providing this, Dana explicitly ascribes her partner's silence to a lack of understanding of the task at hand, and thus to a more serious trouble type (see Couper-Kuhlen & Selting 2018: 167) than the one she continues to work on through her pointing gesture. Again, language alternation co-occurs with a boundary within the repair activity (see Kasper 2004; Mori 2004). Similar to Extract 32' discussed above, the shift to L1 occurs at a juncture between subsequent attempts at repair initiation, though there is no change in the projected trajectory of the repair instance. Arguably, the German metacomment, by ascribing the absence of Dave's next-due turn to an understanding issue, may put additional pressure on him to continue the role-play to disprove this, thus upgrading the pursuit of response. Dana's simultaneous pointing gesture, however, shows that she still pursues OISR.

While Dana's latest attempt at OISR still remains unsuccessful, it provides useful insight into the kind of context in which shifts to the L1 occur in my beginner-level collection: When learners perceive their co-participant to be struggling with understanding the current task, and find themselves in a position, but without the L2 means,

to help resolve this problem, they switch to the shared L1 in order to produce the necessary metalingual talk. This is not limited to OIR – on another occasion, the novices utilise their L1 when trying to straightforwardly *carry out other-repair* on some trouble their co-participant is facing.

5.3.4.2 Learners' Use of L1 for Other-Repair

Extract 40 illustrates the beginner-level learners' use of the L1 to accomplish other-repair. It is part of the teaching unit on 'wintertime' already mentioned in section 5.1.2.1. At the work station depicted here, the learners are engaged in a snakes-and-ladders type of board game. In addition to the eponymous snakes and ladders (in this case, broomsticks), the board which the teacher provides to the learners also contains some 'event tiles' labelled with a question mark. As the teacher had explained at the beginning of the lesson, if a learner lands on such a tile, they have to draw one of the event cards provided and carry out the task indicated there. In line with the other activities in that teaching unit, these tasks appear to be formatted as incomplete sentences. The learners are required to describe a character or state-of-affairs within a picture book they have clearly been working with for a time. Each event card indicates the page within the book where the learner can find the character or situation in question, and which thus contains the information they need to complete the provided sentence. It is currently Ana's turn, and she has just drawn an event card after landing on one of the special tiles.

Extract 40: can you help me (QUA-LiS NRW 03.9, 2:15-2:58)

```
01   Ana:   *<<reading out> the snowman has GOT?
     ana:   *looks at card-->
02          ~#      pAge,     #~ | (.) ~#(SIXteen/SIXty).>#~
     ana:   ~puts card on table~      ~     takes book    ~
     ana:    #lowers body down#        #  turns to left  #
03          ((Ana leafs through the book, opens page, approx.
             6 sec.))
04          ((Ana looks at card, then back at page; Bea also
             looks at page, approx. 5 sec.))
05          ((Bea points at page, presumably snowman, Ana
             follows her finger, looks around the page, then
             back at card and back to book again, approx. 6
             sec.))
06          ((Ana looks up at Bea, moves towards her))
```

```
07   Ana:   $can you HELP me,$
     ana:   >>looks at Bea-->
     bea:   $looks at Ana    $looks at book-->
08   Bea:   (1.3) %    ähm::_h°       %
     bea:         %smiles slightly  %opens mouth
09          ((Bea moves to take the clothespin off of her
             shirt, then turns back to Ana, approx. 3 sec.))
10 → Bea:   <<Ger> $na ich gla*ub $da    *musst du:> °hh
                   well I think you have to
     bea:          $looks at picture-->
     bea:                      $points at picture-->
     ana:                   *looks at  *follows Bea's finger
                            Bea's face  with gaze-->
   →        he's got hat <<Ger> oder> SC$ARF;*
                                   or
     bea:                               $
     ana:                                  *looks at
                                            card-->


     ((approx. 6 sec. omitted; Ana starts an attempt at describing
     the snowman, is overlapped by Gia, who provides another expla-
     nation))


11   Ana:   the snowma*n has got HAT,
     ana:            *looks at picture-->>
```

After reading out the text on the card (lines 01-02), Ana takes the picture book and looks for the correct page (line 03). Upon finding it, however, an extended pause ensues, during which both Ana and Bea, one of her partners, look at the page. When the pause persists, Bea takes it as an indication that Ana is having problems finding the character she is supposed to describe, and starts pointing at the open book, presumably at the snowman (line 05). Ana follows her finger, but still does not provide the description she is supposed to. After turning her gaze back and forth between the book and the event card for another few seconds, she moves closer to Bea (line 06) and then explicitly requests her assistance (can you HELP me, line 07). Bea, after some delay, produces a lengthened hesitation marker, then opens her mouth and keeps it open while gazing at the picture book (line 08). After struggling with responding to Ana's request for assistance for an extended time, Bea abandons her ongoing attempt at providing other-repair in English, as is indicated by her moving to take off the clothespin she

previously wore on her scarf[57]. Subsequently, drawing on her L1, she provides a hedged candidate explanation of the task to Ana (line 10). Ana, after briefly returning her gaze to the event card, starts producing the relevant utterance, and while she momentarily puts her TCU on hold in response to Gia's incoming, she goes on to produce it fully in line 11, indicating that she was indeed struggling with understanding what the event card required her to do, rather than with lexical issues.

Just as in Extract 30'', the switch to L1 displays a learner's orientation to their co-participant's (perceived or explicated) need for assistance in understanding what a task requires them to do at that particular point in time. However, the cases do differ: In Extract 30'', the language alternation occurs as the learner first explicitly ascribes noticeably absent talk to an understanding issue, thus upgrading her OIR. Extract 40, however, sees Bea already clearly engaged in dealing with her partner's problem of understanding, but without the means to do so in English. In consequence, she starts a second attempt at providing the requested other-repair. Once again, then, the learner's switch to German coincides with a boundary between subsequent attempts at accomplishing a specific repair task.

5.3.4.3 Summary

As I have shown, there are a few occasions of my novice and intermediary-level learners utilising their L1 for repair-related tasks other than self-repair. The two groups differ in terms of the specific tasks for which they draw on German: The beginner-level learners shift to their L1 in the context of other-initiation and other-repair, and the intermediary-level learners utilise German for SIR purposes. These uses are unattested in my advanced learners' data set. In fact, they may already fall out of use during the intermediary stage of learning a language: The 9th-grade intermediary learners also do not draw on their L1 in the context of repair initiation or other-repair. This indicates

---

[57] Earlier in this session, the teacher tasked her students to try and use English as much as they can. As a visual reminder of this, she provided the learners with 'English clips'. Bea's conduct shows that the learners are clearly used to this procedure and treat the use of German as illegitimate while they are wearing the clothespin: It is Bea's incapability of providing assistance in English that occasions her shift to German, but she only uses her L1 after having taken the clothespin off her scarf. Later in the same excerpt (not shown here), Gia, the third co-participant, perceives a need to provide her own, if unsolicited, explanation. She draws on German as well, but also makes a point of taking her clothespin off first. Both learners move to put their pins back on once they consider the issue resolved, though Gia does so immediately when Ana starts her description, and Bea waits until the description is finished.

that as learners progress from intermediary to advanced level, they stop relying on their first language for those interactional tasks, supporting prior CA-SLA findings (Lehti-Eklund 2013; Pekarek Doehler & Berger 2019). Instead, learners are able to draw on their L2, and thus show more developed L2 repair skills.

In both learner groups, language alternation co-occurs with boundaries within the repair activity. It may accompany a shift in the projected trajectory of the repair instance, but it more commonly coincides with the start of a next attempt at accomplishing the repair activity currently underway. However, more data is needed to ascertain whether a) shifting to the L1 serves as a cue indexing such boundaries and b) if so, at higher levels, learners still utilise it thusly.

Combined with the observations made by Lehti-Eklund (2013) and Pekarek Doehler & Berger (2019), there still is enough evidence to be found in my data to propose a candidate criterial feature for the assessment of a learner's L2 repair skills: Based on the *repair-related tasks for which the L1 is (not) used*, a learner could be assigned to a general learner level. Only further research will be able to show if this criterion also allows for differentiation within learner cohorts.

Even more promising, as pertains potential assessment criteria, are those cases in my data in which learners utilise their L1 in order to deal with trouble resulting from the lack of access to a linguistic item or unit due next – that is, when they draw on German in the context of (i.e., after repair initiation via) searches and bricolage. This is what I will turn to next.

5.3.5 L1-based Practices of Repair in the Context of Searches and Bricolage

In line with prior research (Duran et al. 2019; Gafaranga 2000; Greer 2013), in my data the use of the L1 to deal with something due next being unavailable frequently entails straightforward *language alternation*. Extract 23'', reproduced and revised here as Extract 23''', provides a prototypical example.

Extract 23''': was heißt bestellen (SSL_191108_5, 8:05-8:18)
```
01   Mai:   ((click)) oKAY;=burger we can: äh °hh äh::
02          <<Ger, whispering> was heißt
                                how do I say
            beSTELlen;>_<<:-)> h°>
            'bestellen'
03   Res:   ((click)) <<whispering> ORder-> (0.5)
```

```
04          [((click)) ORder,]
05   Mai:   [        uh        ]
06          $O$Rder        $(.) $             $bur$ger f_from: °h
     mai:   $RH scratches  $RH moved
             left cheek      down, to lap   $
     mai:     $withdraws gaze   $straightens  $looks at
               from Res           head and gaze notes-->
            (ä:h/ö:h ä:h/ö:h)
 →          <<Ger> &lieferdienst&$;>_<<:-)> h°>
                      delivery service
     mai:           &    shrugs   &
     mai:                          $gaze and head to
                                     Res-->>
```

In section 5.3.4.1, I already showed that Maik faces a lexical issue shortly after starting his turn. To deal with this problem, he launches a search that, eventually, he requests assistance with. After the researcher provides the searched-for item, he then goes on to continue his TCU (line 06). However, before he is able to finish it, he encounters yet another issue: At a point where syntactically, a prepositional complement (most likely a noun or noun phrase) is clearly expectable next, continuation is delayed first by sound lengthening on the preposition, and then by an in-breath as well as two hesitation markers. At the beginning of this halt in progressivity, Maik finishes turning his gaze from the researcher to his notes – it remains withdrawn in this way until the TCU is completed, at which point Maik directs his gaze back to the researcher. There is much evidence, then, even prior to the repair operation, that Maik's repair initiation is pre-positioned (Schegloff 1979: 273; see also Couper-Kuhlen & Selting 2018: 118) instead of responsive to a trouble source already (partially) produced, and that he is carrying out a search. When he is unable to resolve the issue in English, Maik conducts a code-switch, producing the German noun lieferdienst to complete the TCU. That this is indeed code-switching in the narrow sense commonly proposed in prior research (e.g. Gafaranga 2000) is clearly indicated by Maik treating his repair as not (fully) successful. While he is able to complete his TCU, he orients to the German item as merely a makeshift solution filling in for some other (most likely English) item he originally aimed for, an inferior option at best (see Duran et al. 2019: 15): As he is producing it, he shrugs, and turns his gaze towards the researcher, who he then starts smiling at. I will return to the discussion on how code-switches like these, where participants shift to German following clear instances of searching or bricolage, may be

analysable as indicating lack of repair success in section 5.4. For now, it can be noted that the bodily-visual cues Maik draws on in the context of the code-switch in line 06 strongly evoke an apologetic stance, and mirror the work he had done previously in the same extract to indicate that he considers the use of German an illegitimate means for requesting assistance – thus, he treats both cases of L1 use contained in the extract as problematic.

In addition to code-switching such as this, my data shows that learners may also draw on their L1 in another way when faced with the unavailability of something due next, by utilising *ad-hoc translations*. In those cases, they continue using English as their medium of interaction. However, the talk they produce is recognisably non-L2-like, and upon review closely resembles syntactic and/or lexical designs found in L1 (German) utterances. Such a phenomenon has been mentioned previously (e.g. Tarone 1981), but to my knowledge has yet to be systematically explored from a CA perspective, not to mention in L2-L2 interaction. Maik's data also provides a clear and representative example of this. In Extract 41, Maik follows up on Leo's suggestion to watch a sailing competition with some arguments why this is not a good idea. First, he claims that sailing is a largely unknown sport in general, before then turning to why watching a race would not appeal to their friend group in particular (lines 01-02).

Extract 41: i don't really know what about sailing (SSL_191108_5, 3:18-3:42)

```
01   Mai:   =°h and @°h öh us FRIENDS-@
             >>gazes at notes-->>
                  @head slightly
                   moved left twice @
02          i @think they don't li:ke@ SAILing,=
              @very slight head shake@
03          =°h &an:d ä:h ((click)) (0.6) i_(n) don:'t öh °h
                &leans forward
                 slightly
            $knOw (0.3) öh abou$t
            $moves RH to notes $
04          i don:
05 →        @i don't veal@ly $&know what_(awou)_°h (about)
            @shakes head @
                              $RH moves to
                               left hip-->>
                               &leans slightly right-->>
   →        SAIling;=
```

198

```
06            =and °h i thi:nk uhm: ((click)) football is for
              (ä/e) (ä/e) (.) everyone thomthing that sh she: ey
              uh they_LOOK;
```

He follows up on this statement with a latched in-breath succeeded by an additive conjunction (`and`, line 03), thus projecting a continuation of the ongoing turn, quite likely a continuation of the previous argument, or an additional point he wants to make. However, he appears to struggle with getting that TCU fully underway. The TCU initiation via the conjunction – itself already lengthened – is followed by a lengthened hesitation marker and an unfilled pause before the TCU is actually launched (Gardner 2007: 59) through the production of a recognisable clause beginning (`i_(n) don:'t`). Even then, the production of the TCU is not smooth: It progresses slowly, with Maik interspersing the emerging talk with both filled and unfilled pauses before he stops it entirely and restarts the TCU twice (lines 04-05). In the end, he is able to produce a full TCU (line 05). However, it shows noticeable non-L2-like characteristics. These include, but are not limited to, deviations from standard pronunciation (`veally`, `awou`), of which only the latter is repaired. Furthermore, Maik departs from English conventions in terms of lexical design, most notably in his use of *what* instead of the more target-like 'anything'. This in particular indicates that the TCU results from a spontaneous attempt at translating the argument Maik has in mind verbatim from German into English, as in German it would not be strange (but quite colloquial) to use the format 'ich weiß nicht wirklich was über X' to express lack of familiarity with a certain topic or person. While Maik shows that he is aware of the differences between German and English word order by placing the clause constituents according to standard syntactic conventions of the L2, he straightforwardly translates 'was' into `what`. Seeing as he immediately segues into his next TCU (line 06) after completing the statement, and therefore maintains progressivity, Maik appears to consider this an adequate solution for his previous issue. It may be questioned in how far the fact that he manages to produce something that, while clearly the result of ad-hoc translating, still approaches a fairly target-like design, is a result of the relatively close resemblance between the English and German designs in terms of lexis involved, allowing for literal translation without the outcome reflecting this to a large extent. In such cases, it is not necessarily a given that learners are aware that they are employing the practice of ad-hoc translating. I will revisit the implications of this in section 5.3.6.

In both this section and section 5.3.4, I have shown that participants do not always treat L1-based repair practices as legitimate means for dealing with interactional trouble. In the following, I will argue that what distinguishes learners is not primarily whether they do (not) draw on language alternation or ad-hoc translations to be able to produce a next-due item or unit. More clearly, they differ in terms of how they orient to those practices. Consequently, the latter in particular may serve as a candidate criterial feature, reflecting learners' awareness of the availability of these practices as repair methods, and thus providing evidence for the diversification of their inventory of repair practices.

5.3.6 The Learners' Orientation to L1-based Practices of Repair
5.3.6.1 The Learners' Orientation to Language Alternation

Firstly, if language alternation to the L1 is used after repair initiation via searching or bricolage, both the intermediary- and the advanced-level learners largely orient to such cases as instances of code-switching, that is, as clear deviations from the medium of interaction they are supposed to carry out their activity in. I have discussed a relevant case from the *intermediary-level learners*' data already: In my analysis of Extract 23''', I have argued that Maik treats his candidate continuation as merely a stopgap solution, as is evidenced through his shrug, his smile and his gaze at the researcher simultaneously and subsequently to his shift to German. Comparable cases can be found elsewhere in the 7th-grader data as well, as can be seen in Extract 42, which continues the talk depicted in Extract 32' above. The excerpt opens with Tim's attempt at starting a new activity, a discussion of the food the learners will have for their hypothetical TV night (lines 01-02). Although it is not entirely clear which specific action Tim is trying to accomplish, Arne responds in a way that would constitute an appropriate next turn to both a suggestion and a request for an opinion, by providing his own (follow-up) suggestion (lines 03, 06).

```
        Extract 42: not gesund sachen (SSL_191108_4, 4:59-5:17)
        01    Tim:    <<Ger> also:> (-) we can put (-) FOOD; (0.7)
                            i mean
        02            <<Ger> als(o) (-) JA->
                            i mean      yes
        03    Arn:    we can eat CHIPS;
        04            (0.6)
```

```
05   Tim:   [YES;]
06 → Arn:   [and ] not (0.5) öh: §(0.6) <<Ger> gesund §(.)
                                             healthy

           >>looks at notes    §turns head/        §turns
                                 gaze to Tim's       back to
                                 notes               notes>>

    →       SAchen;>
            things
07   Tim:   %((laughs))_°hh% (.) ähm::
     arn:   %   smiles     %
08 → Arn:   hEalthy <<Ger> SAche(n);>
                           thing(s)
09   Tim:   ((laughs)) ( ) (b/w_[m::   )           ]
10 → Arn:                    [<<p> hEalthy TH]INGS;>
```

After Arne advocates in favour of having potato chips as a snack (line 03), there is a noticeable lapse in talk, which is eventually resolved by both participants in overlap: Just as Tim provides an agreement token (line 05), Arne initiates a next TCU (line 06). The negation particle not suggests that Arne may be about to explicitly reject some other food, thus narrowing down the food options he would consider acceptable. However, instead of some fitting noun or noun phrase being produced, the continuation of the TCU is delayed both by unfilled pauses and a hesitation marker. Additionally, Arne notably moves his gaze, first letting it roam around his own notes, then turning it towards Tim and gazing in the direction of his notes just as the second unfilled pause begins. It is clear, then, that Arne is facing some problem of speaking. That his trouble is occasioned by the lack of access to something due next becomes apparent when he resolves the halt in progressivity: He continues the TCU with a noun phrase produced in his L1, German (gesund (.) SAchen). This shift from L2 to L1 is oriented to as notable by both participants, and clearly treated as a placeholder solution by Arne: Tim laughs in response (line 07), Arne visibly smiles, and then proceeds to work on producing an English replacement for his preliminary TCU continuation. This takes him two attempts (lines 08, 10). Arne only fully yields his turn when he has transferred the entire noun phrase into English (hEalthy THINGS, line 10), despite the fact that in the meantime, Tim not only has initiated his next turn with an in-breath and a hesitation marker (line 07), but also has spent some time recognisably struggling to launch it (line 09).

Just like the intermediary-level learners, the *advanced learners* treat straightforward shifts into German as an illegitimate practice for dealing with the unavailability

of lexical items. In the single case that a university-level learner draws on this practice in my collection, she clearly and explicitly problematises its use, as I will show below (Extract 43). The two participants of the zoom discussion, Mira and Jana, who had been supplied with a discussion card prompting them to debate education systems, are currently talking about the difference between their past and current experiences as school and university students, respectively. Jana just finished a long telling on the insecurity she used to feel at school, and how this still leaves her baffled about her academic success at university. Then, she asked Mira whether she has experienced anything similar. Mira confirmed this, saying that she was not a shy child, but was reluctant to participate actively in class due to a lack of confidence in her abilities. This, she reports, made her parents try out measures to help her 'find the courage to raise her hand' – here, the extract sets in (line 01).

Extract 43: meldeheft (SR-DE, 7:48-8:12)

```
01   Mir:   becau:se my parents thought (0.6) i'd have to work
             >>gazes down-left-->
             >>head tilted left-->
             *on: (0.6) | you know (.) | +finding the+
             *moves gaze slightly up
                                        +EB raise   +
             +*courage to ~+raise my~ HAND+,
             +straightens  +nods, then EBR+
              head
              *gazes at screen-->
                        ~raises RH~
02   Jan:   [mh]
03   Mir:   [so] i had ~like a      ~ *(0.5)
                        ~moves hands~
                                       *gaze moves left-->
  →          <<Ger> MELde*+heft,>   +
                          *gazes right and up-->
                          +EB raise+
04           + (0.4)   +*
     mir:    +grimaces+
     mir:            *gaze moves left-->
```

202

```
05  Jan:    [   okay  ]
06 → Mir:   [(xxx xxx)] (i *~said a) ger+man    W+ORD,~=
                            *gazes at screen-->
                                      +EB raise+
                           ~LH moved forward and back~
    →        ((laughs))=
07 →        =+~°h [ähm    ~ ]
             +tilts head back-->
              ~circles LH~
08  Jan:         [yeah but]
09          (0.5)
10 → Mir:   like a +~BOOKlet,~ | that i had to carry
                   +head slightly turned right-->>
                    ~moves RH~
    →        +WITH me-+
             +EB raise+
11 →        where i would write do:wn how many times i raised
    →        my HAND.
12  Jan:    [oKA:Y?]
13  Mir:    [  they] made me DO that-
```

Shortly thereafter, Mira runs into a lexical issue (line 03) – after projecting a forth-coming noun by producing an indefinite article, she briefly halts her TCU, before re-suming it with the German noun MELdeheft. This case of code-switching differs from the ones in the intermediary data set in several notable ways. For one, when the inter-mediary learners conduct searches, they can usually be seen to attempt to resolve them for an extended time, drawing on a combination of hesitation markers (Extracts 23''', 42), lengthening (Extract 23''') and unfilled pauses (Extract 42). Mira's search, on the other hand, is a fairly short one: She merely delays the progress of her utterance with an unfilled pause, although her simultaneous gaze shift away from the screen clearly indicates trouble as well. Apparently, then, where Maik and Arne draw on code-switching to German only as a last resort for dealing with their ongoing lexical issues, the practice is not used quite in the same way by Mira. This relates to a second differ-ence between the cases: Both Maik and Arne are searching for, and eventually use the L1 to stand in for, lexical items that, while not necessarily part of basic L2 vocabulary, clearly belong to the everyday English lexicon (e.g. Extract 23''', where Maik was searching for 'delivery service'). Mira, however, is trying to tell Jana about a particular

type of pedagogical tool, and attempts to find an equivalent for a technical term belonging to a certain professional jargon. Her use of code-switching therefore is reminiscent of some of the cases discussed by Greer (2013), who indicates that code-switching may result from a conflict between the desire to use "the most appropriate and concise lexical item for the concept" (:107) and a (purported or actual) lexical gap within the medium of interaction, rather than from any lack of language proficiency. Indeed, similar to what he reports, Mira follows up on her code-switch with a paraphrase of the German item she used (lines 10-11; see Greer 2013: 107), displaying her ability to make her point in the L2. Beyond that paraphrase, however, there is further indication that Mira considers this shift to German problematic, regardless of a) the reason why she utilised the phenomenon, and b) the fact that German is her co-participant's first language as well, and therefore is available as a resource for sense-making in this context. For one, rather than returning her gaze to the screen upon producing the candidate, as she does on other occasions when she successfully resolves a search, Mira actually keeps her gaze withdrawn from it, and lets it wander around until she starts producing a metacomment problematising her code-switch in line 06 (`(i said a) german WORD`). This may indicate where she abandons a possible retrospective attempt at finding a fitting English word. As this additional gaze withdrawal takes place, Mira also raises her eyebrows, and then grimaces. Following her metacomment, she laughs, and then immediately continues with the aforementioned paraphrase. Even though Jana makes it clear that she has understood what Mira was talking about, launching (but later abandoning) some sort of uptake in line 08, Mira only moves on with her telling after she has completed her paraphrase, and therefore delivered a fully English version of her TCU. In this way, Mira clearly indicates that when designing her turns, she does not only consider how to achieve and maintain mutual understanding, but also aims to keep with English as the sole medium of interaction for the current exchange, a norm which she treats as having no acceptable exceptions.

There is only one instance of a learner beyond beginner level shifting from English to German to deal with something due next being unavailable, but *not* orienting to this as inapposite (see Extract 44 below). Notably, that case is produced by Tim, whose repair work frequently tends to differ from that of his peers: As I have mentioned in sections 5.1.2.2 and 5.2.5, out of all learners in his cohort, Tim tends to struggle most with producing utterances throughout the role-play (see, e.g., Extracts 29, 32), sometimes extensively drawing on his co-participant's turn structure and design to that end

(see, e.g., Extract 28; see also section 5.4). Since his attempts at repair also repeatedly are entirely unsuccessful (see section 5.4), there are grounds to assume that he is the 7th-grader who displays the weakest L2 repair skills. Fittingly, his repair work also shows some similarities to that of the beginner-level learners, as I will be showing in the remainder of this and in the next section.

In Extract 44, Tim follows up on Arne's argument that they should watch a trampolining competition because the British team is likely to beat the German one. He attempts to produce a similar kind of contribution in response, and, when encountering trouble doing so, alternates to his L1. Notably, he does not problematise this.

Extract 44: spannend(es) spielen (SSL_191108_4, 4:13-4:29)
```
01   Tim:   =(*ähm::/uhm::) (0.2) * (0.4)
                *briefly looks up,  *looks at notes -->
                 then down at notes
             ((click)) °h (-) ▫    (-)   ▫ i:: like (--) GERman
                                  ▫slight lip
                                   movement ▫
             footba:ll;
02           because (-) ähm: (1.0) uh_h° (1.2)
    →        <<Ger> spann_+n: (.) spannend(es) SPIElen,>=
                    exciting         exciting       gameplay
                         +eyebrow
                         twitch
03           =°h ähm: (1.3) <<Ger> MJA;>_h°*
                                     yeah
                                           *looks up from
                                            notes-->>
```

After noting his preference for the German football team (line 01), Tim starts into an account, but is unable to produce it smoothly. In fact, after he initiates the TCU with a conjunction (because, line 02), there is an extended delay of further progress, as he alternates filled and unfilled pauses. Tim's gaze remains on the notes in his hands throughout, even when he completes the TCU by shifting to German.

There is no clear indication that Tim considers his use of language alternation problematic. While he subsequently produces a hesitation marker and an unfilled pause (line 03), it is unlikely that these means retrospectively orient to, and contribute to an attempt at working on, the language shift. Rather, these speech perturbations appear to

index trouble related to the fact that Tim projected more-to-come by ending his previous TCU in rising intonation. In his use of, and orientation to, language alternation, Tim shows clear similarities to how the phenomenon is used in the novice learners' data – even despite the fact that while the beginner-level learners do occasionally draw on their L1 for the purpose of filling in some open slot in an emergent utterance, the instances where they do so only constitute marginal cases for my study. That is, cases such as the ones in Extract 45 do not fulfil the criteria I set in order to identify instances of repair (see section 4.2.1).

Extract 45: giraffe (QUA-LiS NRW 08.3.3, 0:38-0:46)
```
01   Sve:   let's go to the <<Ger> gi> (.) giRAFFE;
02          (0.7)
03 → Ron:   tch tche giraffe is <<Ger> !LANG!weilig.>
                                          boring
04 → Sve:   the giraffe has [a lo]ng <<Ger> HALS;>
                                             neck
05   Ron:                   [can ]
```

In this excerpt, both Sven and Ron alternate to German without any indication that this results from local trouble (lines 03-04): Neither does the alternation constitute a halt in progressivity, nor is there such a halt beforehand. However, there is no evidence that the learners freely alternate between their L1 and their L2, that the medium of interaction in this classroom is bilingual in nature. A review of the rest of the data available for this learner group shows that any interaction in the classroom primarily takes place in English. While the teacher does not strictly enforce an English-only policy, the background information available indicates that learners are encouraged to try and use English as much as they can (QUA-LiS: "Filmsequenzen Film 6 – *At the zoo (Storyline)*", 2023, website). Therefore, when shifts to the L1 happen, it can be assumed that this may serve to *forestall* a search that would otherwise become necessary. Relevantly for this analysis, neither of the instances of language alternation produced by Ron and Sven are oriented to as deviations from the agreed-upon medium of interaction by the participants, and thus as problematic in any way.

To summarise my observations so far, some interesting patterns have emerged in terms of learners' treatment of language alternation as a (non-)permissible option for dealing

with trouble in finding something due next. At novice level, language alternation appears to be used freely in this context even without a prior attempt at finding an English item. It is only in the intermediary learners' data that the participants start orienting to shifts from L2 into L1 after repair initiation via searches or bricolage as instances of code-switching, as deviations from the established medium of interaction. These learners already largely treat this way of resolving lexical trouble as unsatisfactory at best, and fully illegitimate at worst. As learners advance further, their use of, and tolerance for, the practice decreases noticeably: There is only one instance of it in the advanced learners' data set, and while the intermediary learners are still drawing on it to deal with the unavailability of everyday lexical material, the advanced learners problematise its use even when no appropriate English term may be available at all.

Considering these patterns on a more abstract level, it can be observed that by treating code-switching as problematic, as an inapposite method for dealing with the problem at hand, the intermediary-level and advanced-level learners provide clear evidence that *they are aware that code-switching constitutes a practice for self-repair*, something that is available to them as one of several alternatives to resolve trouble of speaking. This is important to note since in my data, the novice-level learners do not provide any such explicit evidence. When they clearly use language alternation for repair purposes, then to accomplish other-initiation or other-repair to help their co-participant deal with problems of understanding. Similarly deviating from the pattern shared by (most of) the intermediary- and advanced-level learners, and thus providing further evidence for it, is Tim, the weakest learner within the 7th-grader cohort. While his language alternation does follow self-initiation via bricolage, he does not clearly display awareness that language alternation is a practice for dealing with the unavailability of a next-due item or unit. Rather, his use of the L1 is quite unceremoniously done, and he therefore provides no insight into his current repertoire of self-repair practices.

This may suggest two aspects to consider in developing candidate criterial features for the assessment of learners' L2 repair skills:

- the **extent** to which language alternation to the L1 is used as a practice for dealing with the unavailability of a next-due item or unit (including whether it is used as a practice at all). Through drawing on this practice, learners indicate that their ability to conduct repair in the L2 is not yet fully advanced. Based on the data investigated here, this appears to be particularly helpful for distinguishing between the intermediary and advanced learner levels;

- the **treatment** of such instances of language alternation to the L1 as acceptable or undesirable, which may be most useful for differentiating between beginner and intermediary levels.

My data indicates that these features may not only be useful for ascertaining someone's *general learner level*, but could also be employed to establish which members of a *learner cohort* showcase less and more advanced repair skills. While in most cases, the 7th-grade intermediary learners do – as discussed – orient to alternation to L1 as code-switching, my discussion of Extract 44 has shown that Tim deviates from this pattern. His repair conduct resembles that of the novice learners – based on this, his L2 repair skills thus would rightfully be considered less advanced than those of his peers. Further research will show whether learners of a cohort can indeed reliably be differentiated on this basis.

5.3.6.2 Learners' Orientation to Ad-hoc Translations

Another promising candidate criterial feature emerges from closer consideration of how learners orient to the second L1-based repair practice I focus on in this section, ad-hoc translations. I provided an example of the practice in Extract 41 above: There, I argued that Maik, when struggling to give voice to the argument he wants to make, produces a verbatim translation of a fitting German turn design. This is successful, and there is no indication that Maik considers this a dissatisfactory solution, or inapposite in any way. Rather, he directly proceeds to start a new TCU, which he even latches onto the argument in question.

A similar case can be found in a contribution produced by Maik's partner, Leo. Just prior to Extract 39' (reproduced and expanded from Extract 39 discussed earlier), Maik noted that one argument in favour of watching a football match would be its standard length of ninety minutes. Since this is comparable to a regular feature-length movie, it would be a good choice for a TV night (see Extract 20). Leo now objects to this, noting that a sailing competition would be a better choice precisely because it is a more extended event. He argues that since the race will run for an entire week (line 02), they will be free to choose how much of it to watch during their TV night (line 03).

> Extract 39': so long we have (SSL_191108_5, 4:55-5:16)
> ```
> 01   Leo:    ((click)) °h no i think sailing is BETter;=
> 02           =°h becau(se) they_are (0.6) ALL the week,
> ```

```
03          and       *we can: look (--)        äh_*~*w (0.3)
            >>looking *shifts gaze back and forth  *looks
              at Maik  between Res and Maik      *  at Maik-->
                                                    ~circles
                                                    RH-->

    →       ä:*~hm ((click)) ~* (-) ä:h ~ (°h) *so long: (.)
             *looks down     *looks up         *looks at
                                                  Maik-->>
             ~               ~moves RH
                             slightly  ~

    →       ~we: °hh äh_we    HA~VE;
            ~slight RH movement~
04          <<nasalized> U:::H;>
05          ((Leo smiles, gaze veiled by glasses))
```

When trying to produce an adverbial to express this notion, Leo clearly halts his ongoing unit. He produces unfilled pauses and hesitation markers, some of them lengthened, thus indicating that he has encountered trouble. Although Leo's gaze is hard to track due to the glasses he is wearing, there are nevertheless some glimpses of gaze movement, first from the researcher to Maik, and then some downward movement away from him. The bodily-visual cue which most clearly indicates that he is searching for something due next is a manual gesture – simultaneously to the first two hesitation markers, he moves his right hand in a vaguely circular manner. Leo eventually continues producing his TCU, thereby resuming progressivity and implicitly indicating the successful resolution of the issue. However, the adverbial he produces recognisably deviates from expectable L2-like expressions (e.g., 'for as long as we want'). Instead, it bears clear resemblance to a German design commonly used to express a fairly flexible time frame: 'so lange wir (wollen/können/dürfen/…)'. While the verb Leo completes the structure with (HAVE - 'haben') does not correspond to one typically used in this slot, it also appears to be the result of its own search (there is yet another hesitation marker, and an extended in-breath, delaying its production). At this point, however, the ad-hoc translation is clearly and recognisably underway.

Again, there is no clear problematisation of this practice. If at all, the sound object in line 04 may be doing something to that effect. However, there is no definite evidence that this is in fact a cue for retrospective repair initiation – it may also be indicating trouble with producing possibly forthcoming talk. Similarly, it might be argued that Leo's subsequent smile (line 05), and possible gaze reorientation to the researcher,

express an orientation to the non-L2-like result of the ad-hoc translation. Even if this should be the case, though, this conduct occurs at quite some distance from the TCU's completion, and could at worst be considered evidence that the translation was deemed entirely adequate *in the moment of its production*.

Out of all cases of ad-hoc translating I have found in the intermediary-level data, this is the only one in which there is even a hint that the learner may not consider it a fully legitimate practice for resolving their trouble. This clearly differentiates this data from the advanced-level learners' data. Again, the practice is much less frequent in the university-level learners' talk than in the intermediary learners' data set: It only occurs once, during the zoom discussion. Furthermore, when Mira does utilise it, she invests a significant amount of effort into finding an alternative English phrasing before allowing herself to move on with her telling (see Extract 38', expanded from Extract 38). Some minutes prior to this excerpt, Mira had alluded that she nearly attended an independent school. The speakers got sidetracked with another topic for some time, but then Jana returned to the previous matter, and just now has asked Mira whether she regrets having attended a public school instead. Mira starts negating, but then goes on to talk about the first public school she had attended, which her mother eventually disenrolled her from (line 01). This, she now explains, was because of the teacher, who tended to stereotype her (lines 02-05).

Extract 38': she labelled you (SR-DE, 13:48-14:26)
```
01   Mir:   i first went to a public school that (0.6) my m:um
             decided wasn't GOOD for me-=
             >>gazes down-left-->
02           =because the teache:r *    (0.8)     * +    (.)
                                       *gaze wanders*
                                                      +narrows
                                                       eyes-->
03           h:ow +*did she PUT it;+
               +turns head up,  +eye narrowing resolved
                narrows eyes
                *gaze moves up-->
```

```
04              *(0.4) she:: (0.4) she +sai:d*        +*   (1.2)  *
                *gazes up further in steps   *          *gaze moves
                                                          further
                                                          left       *
                                        +head tilted
                                         back slightly+
05 →            sh:e *had +  put   + me: ~(.) □(0.5)*(1.0) in like
                     *gazes right                  *gaze moves
                      slightly                       downward-->
                          +EB raise+
                                        ~RH moved in into-out-of
                                         motion twice, then into-
                                         motion-->
                                            □smiles-->

   →            a +DRAW~(er),_+*((laug[~hs))]
                  +tilts head +turns head to screen-->
                   right
                       ~
                                *gazes at screen-->
06  Jan:                          [~m_H][M,           +   ]
07 → Mir:                              [<<laughing> +tha]t's~
                                       ~RH raised to mouth level ~
                                                    +tilts
                                                     head
                                                     left-->

   →            the: ~+GERman ex+pre~s+*sion;=
                     ~LH turned fwd
                      at wrist, then
                      lowered        ~
                     +slightly       +head turned left-->
                      shakes hd+
                                    *gazes down-left-->
08 →            =i don't know how to sa[y       it] in (uhm) (.)
09  Jan:                               [(ah/yeah;)]
   → Mir:       +*in ENG~lish;#=
                +turns head to screen-->
                 *turns gaze to screen-->
                     ~LH raised to temple-->
                         #leans right slightly-->
```

211

```
10            =°h Anyways#~;=uhm:* ▫(1.0)   *(.)▫
                            #
                           ~
                                *gazes up- *further left-->
                                 left
                                  ▫opens mouth ▫
11 →      like ~have an *i~dea        of* what i would be
                  ~lowers LH ~
                            *gaze moves
                             slightly right,
                             then down-left *
   →      like +*without (.)  +*REALly get+ting to know me.
                  +head slightly +turns head
                   turned left    to screen  +
                   *gazes further *gazes at screen-->
                    left
12   Jan:  (m_)yeah=she LAbelled you?
13         +BAs[i~cally.~     ]
14 → Mir:      [e~X A C ~T ly;]
     mir:  +nods-->
     mir:       ~points
                RH at
                screen~
15 →      @she LA*+belled me;
     jan:  @nods-->
     mir:       *gazes left-->>
     mir:        +turns head left, continues nodding-->
16 →      °h@ +THANK you;
     jan:    @
     mir:     +slightly shakes head-->
17 →      oh %my GOODness;
     jan:    %smiles-->>
18 →      what is WRONG with me,+
     mir:                      +
```

Mira noticeably struggles with producing this part of the telling. This, it soon becomes clear, is not due to Mira having a problem with what to say, or even with how to express her point. Rather, she is trying to reproduce a precise phrasing, which she has trouble remembering. She quickly suspends the progress of the adverbial clause currently underway (line 02), first with sound lengthening, then with an extended unfilled pause

during which her gaze, which had already been withdrawn from the screen prior to line 01, can be seen to wander around rapidly. The trouble source is made explicit afterwards, when Mira utters a self-directed question (see, e.g., Couper-Kuhlen & Selting 2018: 118), `how did she PUT it` (line 03). This is accompanied by a clearly recognisable 'thinking face' (as described ibid.: 122): Mira very noticeably redirects her gaze upwards – further withdrawing it from her co-participant, in that sense – adding to the narrowing of her eyes which already started shortly before the meta-question. She thus shows herself to be engaged in a search, and continues doing so throughout line 04. While there is some lexical material being produced, which considered by itself might project more-to-come and therefore the possible resolution of the search, there are a number of indications that this is actually not the case, that the search is rather being continued. For one, what is being produced is clearly not a straightforward candidate continuation of the incipient TCU as projected in line 02, nor is it an attempt at restarting the TCU-so-far (while replacing the full noun phrase `the teacher` with a pronoun, `she`) – rather, in the context of her prior meta-question, Mira can be understood as producing a quotative (`she said`; see, e.g., Golato 2000: 29). The elements of the emerging quotative are lengthened, interspersed as well as followed by unfilled pauses, and accompanied by Mira withdrawing her gaze even further upwards and then to the left side, as well as tilting her head back slightly. The search, then, is not only unresolved at this point, but intensified further. A first visual sign that the issue is being resolved, an eyebrow raise, only occurs once Mira does return to the originally projected trajectory and produces the predicate that had been due next when the halt in progressivity began (`had put`, line 05). There is further hesitation afterwards, the iconic manual gesture (Couper-Kuhlen & Selting 2018: 122) accompanying it serving as indication that Mira has entered another search – where before she had been struggling with recovering her mother's phrasing, she now attempts to find an English equivalent for the remainder of the expression. Notably, what she had uttered so far (`she had put me:`) is fully L2-like in syntactic structure and lexical choice, and might have been completed as such as well (e.g., 'she had put me into some category/stereotype/…'), still expressing the same notion. However, Mira concludes the TCU in a way that makes her resolution of the search recognisable as an ad-hoc translation of a German idiom ('jemanden in eine Schublade stecken', literally 'to put someone into a drawer', equivalent to 'to pigeonhole someone'). She immediately orients to this as problematic: She laughs, and then goes on to explicitly problematise and attempt to

remedy her use of ad-hoc translating, even though Jana indicates that she neither has an issue in understanding (line 06) nor does she consider the repair solution inapposite (line 09). First, Mira explicitly comments on the practice she just used, confirming not only that she consciously conducted a translation from her L1 (`that's the GERman expression`, line 07), but also that she only did so as a second choice, because she did not have an English equivalent available (`i don't know how to say it in (uhm) in ENGlish`, line 08). Likely in response to Jana's display of understanding (and non-problematicity) in line 09, it is possible that Mira briefly orients to the repair instance as concluded, thus projecting a return to her telling (`Anyways uhm`, line 10). However, if this is the case, she quickly reconsiders, possibly unwilling to implicitly ratify the serviceability of the practice she used by continuing on. She instead paraphrases the idea expressed by the idiom (line 11). Jana now provides a candidate replacement for the translation (line 12), incrementing a hedge (line 13). Mira fully accepts this candidate both verbally – she produces a strong agreement token (`eXACTLly`, line 14), repeats the candidate (line 15) and expresses her appreciation (`THANK you`, line 16) – and bodily-visually, nodding and briefly pointing at the screen (i.e., in Jana's direction). Simultaneous with the appreciation, however, Mira starts shaking her head, projecting her upcoming self-deprecation (`oh my GOODness what is WRONG with me`, lines 17-18). This provides evidence that Mira considers her ad-hoc translation a result of her own lack of language proficiency, rather than of some interactional contingency which may offer an excuse for the use of an illegitimate repair practice. Just as shown before in Extract 43, then, Mira endeavours to not only produce her turns in a way that ensures her co-participant can understand her, but also to remain within the boundaries of what is permissible in the context, in which she considers English the sole medium of interaction.

In sum, while the intermediary-level learners recurrently draw on ad-hoc translations to deal with the unavailability of something due next, and treat this practice as a fully legitimate way of handling this kind of trouble, only a single instance of the practice can be found in the advanced-level data set, and it occasions an extended problematisation and an attempted remedy via paraphrasing. No cases of the practice could be found in the novice learners' data. While this may, once again, at least in part be attributed to the types of task the beginner-level learners are working on in the recordings, it stands to reason that ad-hoc translating also requires that a learner's vocabulary

(and morpho-syntactic knowledge) has already developed to some extent. The novices are clearly still engaged in acquiring a basic vocabulary, and thus, the practice is not yet available to them. Once again, Tim mirrors what has been observed for the beginner-level learners, rather than the other intermediary learners' conduct: He is the only learner of his cohort not to produce ad-hoc translations. His lack of linguistic proficiency is well-observable throughout his role-play performance, as I will discuss in more detail in section 5.4. At least in his case, then, an argument can be made that non-occurrence of ad-hoc translations and gaps in vocabulary and morpho-syntactic knowledge correlate, and may stand in a causative relationship with each other.

It is notable that while the intermediary-level learners orient to code-switching as an inapposite practice for dealing with the unavailability of some next-due item or unit, ad-hoc translations – a practice that clearly requires more L2 proficiency than straightforward language alternation to the L1 – receive a very different treatment. It is only at the advanced level that this practice is problematised. Following the train of thought I introduced in the previous section, this time it is the advanced-level learners only who explicitly display awareness that ad-hoc translations are a practice for self-repair. Lower-level learners, as I noted earlier in my analysis of Extract 41, do not provide such indication. This is not to say that these learners do not at all utilise ad-hoc translations as a practice, but there is no explicit evidence that it is part of their current repertoire of consciously available repair practices. With ad-hoc translations in particular, it is possible that learners require a certain level of linguistic skill to be able to engage in deliberate translation, rather than unconsciously relying on the transferability of L1 lexis and grammar into the L2. In any case, the patterns of explicit acknowledgement of code-switching and ad-hoc translations as practices for self-repair may provide some additional support for the observation noted by Pekarek Doehler & Pochon-Berger (2015) that the development of L2 IC entails a "diversification of 'methods' for accomplishing social interaction" (:262). The more advanced my learners, the more practices they explicitly indicate to be part of their repair inventory.

To distinguish *between different learner levels*, then, the overall occurrence of ad-hoc translations may serve as a helpful indicator. More importantly, however, learners could be differentiated in terms of whether, and to which extent, they treat their use of the practice as problematic, and thus explicitly display awareness that it is part of their inventory of self-repair methods. Once again, candidate criterial features established

on that basis may prove useful for differentiating between *learners of a cohort* as well, although further research is needed to conclusively show that this is the case.

5.3.7 Summary

I will start my review of the main observations discussed in this section, and the candidate criterial features that may be derived from them, with what has been revealed through a comparison of the repair work done by the different learner groups (summarised in Figure 11 below), before turning to the insights I gained from comparing my 7th-graders' conduct.

	beginner	intermediary	advanced
use of L1 for SIR, OIR or OR			
use of alternation to L1 to deal with unavailability of item/unit			
orientation to alternation to L1 as inapposite means for self-repair			
use of ad-hoc translation to deal with unavailability of item/unit			
orientation to ad-hoc translation as inapposite means for self-repair			
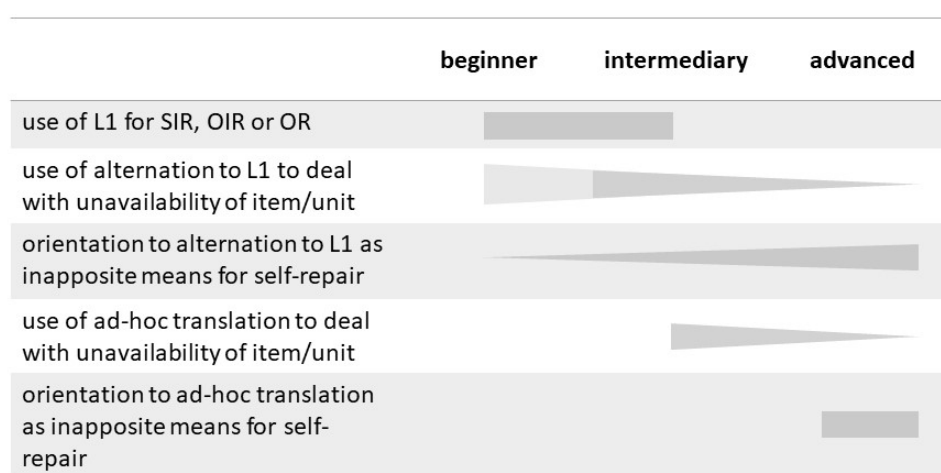
Figure 11. L1 use during repair across learner levels

Through my cross-sectional analysis, I was able to show that

- only the intermediary-level learners draw on their L1 for SIR purposes, and only the novice learners shift to German in the context of other-initiation and other-repair. Over time, learners may develop L2 repair skills that allow them to accomplish these repair tasks in English as well. This observation suggests that learner levels might be differentiable by considering *for which repair-related tasks learners draw on their L1*.

- at all levels, learners can be seen to use language alternation in order to produce some item or unit due next. While it is only at the intermediary and advanced levels that this phenomenon is attested as a means for dealing with the notable unavailability of something due next (to follow SIR via searching or bricolage), an argument may be made that even at beginner level, its utilisation may serve to prevent a halt in progressivity, and thus constitute an L2 repair skill in a

wider sense. However, much more significant than the mere occurrence of alternation from L2 to L1 in this context, or the frequency with which it takes place, is the manner in which the learners *orient to the phenomenon*. The beginner-level learners do not treat such language alternation as notable, let alone problematic in any sense, while most of the intermediary learners already indicate that they consider it an illegitimate means for resolving the trouble at hand. It is thus at the intermediary level that learners start explicitly treating code-switching as part of their inventory of self-repair practices. The orientation to the phenomenon as a (non-) permissible practice for self-repair may therefore also be a way of distinguishing between learner levels.

- at intermediary level, once they have developed sufficient linguistic proficiency in the L2, learners start employing an additional practice, ad-hoc translating from L1, to deal with something due next being unavailable. This provides a very straightforward instance of the diversification of inventories of practice that in the past has been described as indicative of the development of any interactional skill (e.g. Pekarek Doehler & Pochon-Berger 2015). Notably, ad-hoc translations occur much more frequently in the intermediary-level learner data than at advanced level. Learners' L2 repair skills could be differentiated by considering *whether ad-hoc translations are used for self-repair*.

- the intermediary-level learners do not indicate that they consider ad-hoc translating to be anything but a serviceable and permissible means of resolving the trouble at hand. At the advanced learner level, on the other hand, ad-hoc translating instantiates extended problematisation and the attempt to remedy the TCU. It is thus only the university-level learners who explicitly treat ad-hoc translations as part of their inventory of self-repair practices. Once again, the *orientation to the practice* might prove a helpful candidate criterial feature.

A comparison of the repair work done by the members of the intermediary-level cohort provides further support for some of the observations summarised above (see Figure 12 below). It is notable, for instance, that

- Tim's repair work tends to be reminiscent of what I observed for the beginner-level data, rather than of his peers' conduct. This pertains to a) his orientation to language alternation – Tim does not orient to it as a (problematic) practice –

and b) the fact that he does not utilise ad-hoc translations for self-repair purposes. This indicates that at least two of the candidate criterial features posited above may also be useful for differentiating between learners of a cohort, and for ascertaining a learner's relative position on a scale from beginner to advanced level.

- not all members of the cohort draw on alternation from L2 to L1 to deal with the unavailability of a next-due item or unit. The two learners that do not, Leo and Gunnar, also are the members of the cohort I have noted earlier to draw on bricolage the least (see section 5.2.5), and who I will show always successfully resolve their repair attempts (see section 5.4). This indicates that Leo and Gunnar might have more advanced L2 repair skills than their peers. The ability to fully rely on one's *L2* skills when dealing with an unavailable next-due item or unit, instead of having to draw on language alternation, further supports this, and reveals another candidate criterial feature.

	Tim	Arne	Maik	Leo	Gunnar
use of alternation to L1 to deal with unavailability of item/unit	■	■	■		
orientation to alternation to L1 as inapposite means for self-repair		■	■		
use of ad-hoc translation to deal with unavailability of item/unit	■	■		■	■
orientation to ad-hoc translation as inapposite means for self-repair				■	

Figure 12. Distribution of L1-based practices within the 7th-grader cohort

The starting point of the analyses I reported on in this chapter was the observation that throughout my collection, the learners recurrently draw on their L1. My investigations focused on two ways in which learners can do so: Straightforwardly alternating from L2 to L1, and ad-hoc translating from L1 to L2. The former proved to be the more versatile practice, allowing for an exploration of the repair-related tasks it is used for by my learners. Ad-hoc translations only occurred as a means of dealing with the unavailability of something due next. Since language alternation also was utilised repeatedly to that end, it was possible to investigate potential differences between my learners in terms of their use of, and orientation to, those practices. Indeed, I was able to show that it is at intermediary level that ad-hoc translations emerge as an additional

practice for resolving the unavailability of a next-due item or unit. The intermediary learners treat it as fully serviceable for that purpose – when they straightforwardly shift to German to that end, on the other hand, they generally already orient to it as an illegitimate practice. The utilisation of ad-hoc translations only is problematised by the advanced-level learners. Overall, I have argued that

- higher-level learners' more advanced L2 repair skills are observable in their lack of need to draw on their L1 for anything but self-repair purposes;
- the emergence of ad-hoc translations as a practice for self-repair in the intermediary-level data constitutes a straightforward example of how learners' inventories of repair practices diversify over time, something described as indicative of developing L2 repair skills (Pekarek Doehler & Pochon-Berger 2015);
- the changes observable across learner levels in terms of whether alternating to the L1 and ad-hoc translating are oriented to as permissible means for dealing with the unavailability of a next-due item or unit serve as explicit indication of what the learners themselves know to be in their inventory of self-repair practices – in other words, these changes indicate a diversification of the methods consciously available to the learners.

On those grounds, I posited several candidate criterial features.

So far, I have mostly focused on instances in which the learners do resolve the issues at hand. However, there are multiple (if infrequent) cases in my collection in which repair is unsuccessful. Furthermore, in the course of my analyses I took note of numerous instances in which a learner accomplishes self-repair, but only by relying on interaction-external resources and/or their co-participants' talk. In my last analytical section, I turn to these instances of unsuccessful and 'assisted' repair.

5.4 Repair Outcome: Failed and 'Assisted' Resolution of Trouble

5.4.1 Success and Failure: Repair Outcomes Revisited

As I discussed earlier (see section 3.1.1.1), there are two possible outcomes for any repair attempt: Either the trouble at hand is successfully resolved, or neither self- nor other-repair take place (Schegloff et al. 1977: 364). Repair 'failure' is considered a complex notion (ibid.; 363-364, fn. 8), not least because participants do not necessarily indicate explicitly that they have been unable to resolve the issue before terminating the halt in progressivity, and if they do, then such indication may take "different forms and types" (ibid.). In a similar vein, while Bauer (2020) notes that a successful instance of repair is always concluded via ratification (:339), she also ascertains that this is regularly done implicitly through the resumption of the talk that had been halted (:389). There may be differences between repair types in that regard – implicit ratification may be particularly typical of SISR, while explicit ratification is more likely to occur in the context of side sequences, that is, after SIOR, or OISR (ibid.).

A review of accounts of the organisation of repair reveals that there are slightly different takes on where to locate the distinguishing line between successful and failed repair. The one on which I base my analyses is the understanding of the concept found in, for instance, Schegloff (2000). In line with Schegloff et al. (1977), he notes that failure is expressed in "the abandonment of the problem" (:207) without any solution[58]. Notably, such 'abandonment' is clearly distinct from, and thus should not be terminologically conflated with, 'aborting'. The latter is one of the self-repair operations listed by Schegloff (2013), which allow participants to deal with a trouble source (see section 3.1.2.3). In order to resolve an issue with an incipient TCU, a participant can "abandon … that way of describing it and launch … a new TCU – clearly different,

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[58] This contrasts with Bauer (2020). According to her, repair may be considered unsuccessful even if a candidate solution has been produced, should the solution be treated as insufficient for practical purposes (e.g., if it occasions further repair, or there is a clear next attempt at resolving the original issue; p. 361). I will later discuss some cases in which my learners arguably do not fully abandon the issue at hand, but their conduct still allows for the claim that a repair attempt remained unsuccessful (section 5.4.3). Still, in general I consider Bauer's take on 'unsuccessful repair' too broad. It would, for instance, encompass those cases in which a solution is proposed by the trouble-source turn speaker, but followed up on with OI(O)R. This may be done to propose a 'better' solution, but it does not necessarily mean that the initial one was not serviceable – furthermore, it may be difficult to argue if the further repair is occasioned by objective insufficiency of the repair solution, or by issues on the part of the co-participant. Still, in future research I will revisit the (boundaries of the) notion of 'unsuccessful' repair.

but, as clearly, addressing the same undertaking in a different way" (ibid.: 54), essentially restarting the TCU as a whole. Thus, while abandoning a repair attempt means terminating all efforts at producing a candidate solution and leaving the issue unresolved, aborting affects only one attempt at dealing with the problem at hand.

Regardless of how 'unsuccessful repair' is conceptualised, it has generally been observed that most cases of repair initiation result in the successful resolution of trouble, generally after a fairly brief halt in progressivity (Schegloff et al. 1977: 364, fn 8).

5.4.2 Previous Research on the Successfulness of Repair

To my knowledge, there is little CA research focusing on the successfulness of repair in particular, and even fewer studies specifically investigating L2 interaction in that regard. Publications that do touch upon this matter very often are concerned with 'atypical interaction' involving participants with speech impairments and language disorders (e.g., aphasia; Wilkinson 2019), and with how the interactional conduct of such impaired participants may differ from that of 'typical speakers' (:287). This research reveals disparities in terms of the repair skills displayed: Aphasic speakers frequently struggle with "achieving quick and successful self-repair" on issues of speaking, even when the trouble-source is an item or issue that 'typical speakers' do not tend to have problems with at all (ibid.). Both the problems of speaking themselves and the problems with successfully resolving them are attributed to linguistic issues resulting from the language disorder (ibid.: 286; see also Wilkinson 2006: 101). Often, the co-participant needs to provide other-repair (Perkins et al. 1999: 270; Wilkinson 2006: 101; Wilkinson 2019: 286): Attempts at supporting the aphasic speaker with producing their own talk by merely other-initiating repair generally remain unsuccessful (Booth & Perkins 1999: 295; Wilkinson 2019: 289). Furthermore, even when impaired speakers achieve successful repair, their attempts at dealing with trouble tend to generate extensive halts in progressivity (Perkins et al. 1999: 278; Wilkinson 2006: 101; see also Milroy & Perkins 1992: 30 for a literature review).

A series of papers that do investigate EFL learners' repair accomplishment, including the extent to which they are able to successfully carry out SISR, has been published by Sato (Sato 2008, 2012; see also Sato & Takatsuka 2016). At first glance, the claims raised by the author(s) appear promising: It is indicated that beginner-level learners rarely carry out successful self-repair (Sato 2008: 234), while at low-intermediary level, learners generally succeed once having initiated repair, regardless of the specific

trouble source (Sato 2012: 21; Sato & Takatsuka 2016: 7). However, the usefulness of these observations for my study is questionable, given that Sato's research clearly takes the conceptualisation of 'repair' as advocated by SLA research (see section 3.2; e.g. Sato 2012: 20; Sato & Takatsuka 2016: 2) as his point of departure, which entails an understanding of the notion of successful repair that is much narrower than the one I base my analyses on. Although Sato does not provide much insight into how he understands repair success, only commenting that it corresponds to "[w]ell-performed repair after self-initiation" (Sato 2012: 19), the data and his commentary thereon imply that for their repair to be considered successful, a learner is required to provide a grammatically correct revised version of the unit containing the trouble-source (Sato 2012: 18; Sato & Takatsuka 2016: 6).

What little CA-SLA, and CA-informed, research there is on learners' successfulness in carrying out repair tasks suffices to provide a first impression of the subject matter. It allows for a rough sketch of a developmental trajectory L2 learners may follow as they become increasingly advanced users of the language. Prior research shows that – over time and with growing linguistic proficiency in the L2 – learners become more likely to successfully initiate and accomplish repair (eg. Kley et al. 2021: 184). More specifically, low-intermediate learners' repair can still be seen to recurrently fail, meaning that "repair … is attempted but given up leaving parts or sentence(s) [sic!] incomplete and/or the original part is replaced by another mistake" (Ikeda 2017: 142). In contrast to that, learners at high-intermediate level are generally able to follow up on self-initiation with successful self-repair (ibid.: 139)[59], although initiation itself may still be unsuccessful (Farina et al. 2012). In fact, there is evidence that learners up to intermediary level may struggle with the (other-) initiation of repair: Even when they clearly have problems understanding their co-participant, they tend to respond with minimal response tokens or non-fitting next turns rather than with OIR (Filipi & Barraja-Rohan 2015: 236-239). Advanced learners, on the other hand, have been shown to be increasingly likely to attempt repair (Youn 2013: 79), and as noted above, they commonly succeed when they do (Farina et al. 2012; Ikeda 2017: 135). Lastly, there is some evidence that as learners advance through levels, their instances

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[59] For a similar developmental trajectory, see Skogmyr Marian & Pekarek Doehler (2022: Sect 4.2.3, para. 2-4), who observe that while their 'upper-elementary' (A2) level learners recurrently abandon searches, the 'upper-intermediate' (B2) level learners tend to be able to accomplish self-repair.

of repair come to generate less extensive halts in progressivity (Skogmyr Marian & Pekarek Doehler 2022; see section 5.2.5).

It appears, then, that the extent to which learners successfully resolve their repair attempts may prove a useful criterial feature for ascertaining learners' L2 repair skills. Going forward, I will take this as my starting point, but I will not only discuss instances of failed repair as defined by Schegloff et al. (1977) and Schegloff (2000), but also cases in which a learner only manages to self-repair successfully due to some sort of assistance (i.e., by relying on interaction-external resources and/or their co-participants' talk). I will show that

- there are some observable differences between learner levels, both in terms of how often repair remains unsuccessful, and with regard to the root cause behind the failure;
- the members of the 7th-grader cohort mainly differ in terms of a) the (non-) occurrence of unsuccessful repair in their talk, and b) whether, and in which way, they display reliance on a co-participant for resolving their troubles.

5.4.3 Cases of Unsuccessful Repair

The vast majority of the cases in my collection constitute instances of successful repair, in that the participants are able to produce some candidate resolution for the issue they are working on. Cases in which an attempt at repair ends in failure clearly are concentrated in the intermediary-level data (see Table 5). More precisely, it is the 7th-graders who are most often unsuccessful in terms of repairing their trouble sources, as there are no relevant cases in the 9th-graders' data.

Table 5: Unsuccessful repair across learner levels

	beginner level	intermediary level	advanced level	total
number of cases in my collection	28	70	33	131
cases of unsuccessful repair	1 (4 %)	8 (11 %)	2 (6 %)	11 (8 %)

The only instance in which a *beginner-level learner* can be seen to be unable to resolve trouble after initiating repair on it occurs in the context of a search (see Extract 46). Prior to the snippet which I presented as Extract 26, Emil is engaged in assessing a

fictitious parrot. At the point where the following extract begins, he had already produced an assessment following the template of 'the [animal] is (very) [adjective]' (see section 5.1.2.1), and now has been trying to find a second assessing adjective for quite a while. He finally succeeds in line 01.

Extract 46: wow the peregrine (QUA-LiS NRW 08.3.3, 3:11-3:23)

```
01   Emi:   very::  (0.5) BIG;=
02 →        +=a:~:nd    (1.3)   +     (0.3)
            >>looks at Fred-->
            +tilts head right  +straightens head-->
              ~runs RH through hair-->
03 →        (~U*GH;+) (0.5)
             ~
               *turns gaze to handout-->
                 +tilts head right, rests it on RH
04          (~äh) (.) wow the:: (0.8) +peregr+ine is very
             ~slightly lifts LH
                                     + EBR  +
            (1.3) F:LY*:;
                    *gazes at Fred-->>
```

He follows up on this successful second assessment by producing a latched conjunction, 'and' (line 02), likely to preface a next TCU. In past research, it has been established that this kind of preface may be employed by participants in order to frame a forthcoming action as a next step within a larger-level activity (Heritage & Sorjonen 1994: 6). Although these authors discuss sequence boundaries within institutional interaction, the preface appears to function in a similar way in the case discussed here. By rushing into the next TCU (line 02) via latching to the conjunction, Emil recognisably projects a forthcoming third assessment of the same animal (in contrast, when he shifts focus to a new assessable, he designs the TCU in question to be disjunctive from the prior talk, and therefore indicates a very clear new start; see, e.g., line 04). However, he encounters trouble in producing it. Instead of the adjective that is expectable to occur next, there is a long unfilled pause accompanied by pronounced head movement and Emil's right hand moving through his hair. All throughout line 02, Emil is looking directly at his partner – upon producing a sound object (line 03), though, he withdraws his gaze from Fred and turns to the handout lying in front of him, which depicts the zoo the class had built. At this point, Emil may already be preparing to

224

move the activity forward, to shift his talk to a different animal. However, the interjection that launches the new TCU only is produced after yet another unfilled pause and a hesitation marker (line 04).

Emil does not produce any candidate continuation. Leaving his action unfinished, he abandons the repair attempt entirely in favour of moving forward the activity as a whole. The abandonment itself is not explicitly marked. It may be projected, but only becomes (fully) recognisable upon the new start. This differentiates Emil's case from those to be found in the *intermediary-level data*. While learners at that level also may abandon an unfinished TCU without producing a candidate solution (amounting to about half of their instances of unsuccessful repair), they do so explicitly: They produce an abandonment token, usually drawing on their L1 for this. Such is the case in Extract 47 below. Here, Arne follows up on his partner's previous assertion that German football usually provides for exciting games (see Extract 44 in section 5.3.6.1), which served as an implicit argument in favour of Tim's project (convincing Arne to agree to watch a football match during their TV night).

Extract 47: egal (SSL_191108_4, 4:33-4:42)

```
01 → Arn:    °h %   (1.0)     % but i watch uh:m:
             >>looking at notes-->>
               %presses lips
                together     %
02 →         (<<Ger> aber>) but uh (0.8)
                     but
03 →         @   n_<<sighing> hh°>     @ <<Ger> eGAL;>
                                         never mind
             @ shakes head and smiles @
04           (0.8)
05   Tim:    (xxx)
06   Arn:    (okay)=good i (.) good iDEA;=
```

From the very start of his turn, Arne appears to have a problem with giving words to his idea: He is able to recognisably launch the turn by producing the start of a clause (line 01), indicating that he has a counter in mind by using the contrastive conjunction but, but then falters. That he only recycles this conjunction in line 02, instead of the entire TCU-so-far, provides evidence that he does not simply struggle with the object noun phrase that would projectably have been due next, but at this point attempts to find a way of producing the TCU as a whole. Following an unfilled pause, during

which he keeps his gaze on his notes, Arne recognisably gives up the counter as a lost cause – he exhales forcefully while shaking his head and smiling, and then explicitly admits to his lack of success by producing a German discourse marker (eGAL), which serves as an abandonment marker in this context. Arne eventually does produce more talk, after an unfilled pause (line 04) and an unintelligible whisper by Tim (line 05). There, he agrees with Tim (line 06), thus producing a kind of action that is noticeably different from the disagreement he had projected before.

Not all instances of unsuccessful repair produced by the 7th-graders entail the full abandonment of the TCU-in-progress. On occasion, the trouble-source TCU does reach completion, but the speaker indicates clearly that the code-switch to L1 that allows for this constitutes the abandonment of a prior attempt at finding a *fitting L2 item or unit due next*. This is especially clear in Extract 48. Prior to the excerpt depicted here, Tim and Arne had each made an opening suggestion on what to watch during their fictitious TV night, but they had not yet started to genuinely argue the matter. Arne now takes it upon himself to initiate such an argument, starting with an upgraded reiteration of his suggestion and following up on it with the account shown here.

Extract 48: very good verein (SSL_191108_4, 3:53-4:03)

```
01   Arn:   =because °hh great BRItain?
             >>looking at notes-->
02 →         is a (-) very good %§  (f)_%uhm ((click)) uh
                                        c(l)
                                 $gaze and head move right-->
                                 %mouths
                                 'v(er)'%
    →        <<Ger> ver§EIN,>
             (sports) club
                                 $gazes back at notes-->>
03 →         <<Ger> ich weiß nich wie_s HEISST,>
             i don't know what that is (in English)
```

He sets up the topic of the sentence he is aiming to produce quite clearly, in a separate TCU (line 01), then starts producing the rest of what is turning out to be a copular structure (line 02). However, he does not manage to bring it to full completion immediately, cutting himself off just as he is starting to produce the head of the noun phrase functioning as the subject complement. The onset fricative provides strong evidence that Arne was about to articulate the German version of the lexical item he intends to

conclude his clause with ('verein'[60]), and that he initiates repair because of that unintentional language alternation. He goes on to produce two hesitation markers while moving his gaze from his notes to the right, into Tim's general direction (either toward his notes or to the middle distance). Since Arne very clearly would be able to produce the L1 version of the next-due lexical item, the search he is engaged in here must be specifically aimed at finding an equivalent L2 item. This is confirmed by Arne: After exiting the search (note his gaze shifting back to his own notes as he resumes talk) and completing the TCU-in-progress, he provides an account for why he used the German item (verEIN) after all. He explicitly comments on his lacking the relevant English word (line 03), implying that he considers his utilisation of code-switching a mere stopgap means (see Duran et al. 2019) for completing the turn, rather than an instrument for successfully resolving the trouble he was dealing with.

As regards the *advanced learners*, there are only two cases in my collection in which they can be seen to be unsuccessful in concluding a repair attempt. These differ from the ones discussed so far, however, as I will show with Extract 49. Just prior to this excerpt from the zoom-mediated discussion, Jana asked Mira if there is any school system she would consider better than the German one, to which Mira replied that she loved the schools she attended. It is at this point that she professes to be 'like Jana' (line 01) – she appears to be referring back to a moment slightly earlier in their talk, at which Jana had told Mira about having had a hard time at school, because classes there were not practical enough to fit her learning style.

Extract 49: kind of like between (SR-DE, 5:40-5:57)
```
01   Mir:   #i'm like +YOU.#
            >>gazes at screen-->
            #leans forward #
                  +slightly tilts head left-->
02          (.) you KNOW.=
03          =i didn't °h* (.)
                    *gazes upward-->
```

---

[60] Arne quite likely means to refer specifically to the *team* that would represent Great Britain at this championship, not a national 'sports club'.

```
04 →         i +was always (.)* +□kind of like between: (0.9)□
               +narrows eyes     +
                                *gaze moves further left,
                                 continues slight movement-->
                                   □starts smiling with growing
                                     intensity                    □
             ((laughs))_°h (0.4)
05 →         +i *was ? (0.3)
             +scrunches face, shakes head-->
               *
06 →         i ~don't   ~KNOW;=i was+ *always like #in between#
               ~moves LH~
                                      +head tilted left-->
                                        *gazes at screen-->
                                                    #slight
                                                     body twist#
   →         *+└(.) like (0.3) i wasn:'t┘ (0.3)
             *gaze moved to/in direction of hands-->
              +head tilted fwd-->
07           +i was           +very *Average,
             +head straightens+
                                    *gazes at screen-->>
```

Having made the similarities between herself and Jana interactionally relevant, Mira now starts to grapple with bringing her next TCU to completion – she initiates it multiple times, drawing on different designs, but only manages to come to a point of possible completion in line 07, after extensive delay. This struggle appears to be based in conflicting interactional tasks Mira finds herself faced with: On the one hand, in comparing herself with Jana, she has made an explanation of what exactly she perceives to be the similarities between them expectable. On the other hand, as she provides this explanation by producing a (negatively framed, initially; line 03) self-evaluation, the parallel she has already drawn to Jana presents her with a problem – any statement that she makes with regard to herself and her own experiences would also be hearable as applying to Jana. Even if inadvertently done, other-evaluation always poses a potential threat to social solidarity. This is particularly true here, given that although Mira and Jana did have some contact prior to the recording session, they did not know each other before they were recruited for the research project. Especially with only very little previous interactional history between them, utterances that claim access to the co-

participant's thoughts and experiences may be perceived as presumptuous and intrusive, even more so when an utterance expresses (at least implicitly) some sort of criticism or negative evaluation. Thus, Mira finds herself in the predicament of having projected some information about her own time at school but needing to avoid designing her turn in ways that claim (too much) access to Jana's experiences, or that imply that Mira thinks that Jana was a weak, 'bad' or difficult learner.

This explains why, after producing a negatively valenced clause beginning (line 03), Mira quickly suspends this trajectory, and then recognisably starts anew with a positively valenced structure projecting a neutral-to-positive self-evaluation (line 04). However, in the course of this attempt, Mira encounters clear lexical trouble. Upon reaching a point where two opposing descriptors are relevantly due next, Mira first produces sound lengthening, and then a longer unfilled pause. At this moment, her gaze has already been withdrawn from the screen. Her smile, however, broadens during the unfilled pause, eventually culminating in a laugh. When she restarts the TCU again in line 05, Mira briefly maintains the narrowed eyes and widely stretched mouth that result from that laughter, but starts slightly shaking her head as well, upgrading her indication of trouble. Following a shorter unfilled pause, there is a filler item (`i don't KNOW`, line 06) immediately succeeded by yet another restart, though in opposition to the previous one, here Mira reproduces the TCU-so-far from line 04, with only minor lexical changes, showcasing that throughout lines 04-06, she has been engaged in searching for the descriptors needed to complete the syntactic projection at hand. As she is carrying out this reproduction, Mira returns her gaze to the screen, potentially indicating an upcoming candidate solution. However, none is forthcoming, and instead, Mira starts a new attempt at speaking about her school experience, thus aborting the previous one (Schegloff 2013: 54). As she does so, she has already removed her gaze from the screen yet again, although in a notably different direction: Where beforehand she had been looking upward, she is now looking down, probably at her hands. This next attempt, again, projects a negatively valenced trajectory, likely a self-assessment. The search for a descriptor, probably an adjective phrase or noun phrase, is considerably less extensive than the previous one, however, and abandoned fairly quickly in favour of starting what becomes the successfully completed TCU (line 07).

Notably, both of the searches I have just discussed occur within an overarching case of repair dealing with the conflicting interactional tasks I have made note of beforehand. It may thus appear self-evident that the abandonment of those searches in favour

of relaunching the TCU should be considered instances of aborting (Schegloff 2013) rather than of unsuccessful repair, challenging the relevance of the cases for the current discussion. However, I argue that the searches are launched in the course of attempts at dealing with this overarching issue, to deal with more local matters, and thus can be considered repair within repair, or 'nested repair'. While it is the lack of success in resolving these searches that eventually leads to aborting, the searches themselves are not aborted, but rather abandoned fully. Since they constitute local attempts at repair that result in failure, they can and should be considered here.

Mira's cases differ from the ones representative of failed repair attempts at beginner and intermediary level. It is very likely that Mira's lack of success in resolving her searches is not due to a lack of any usable lexical material, but rather a result of the unavailability of items that do not only allow her to express what she means to say, but also do not imply anything negative or presumptuous regarding Jana's school experiences. That is to say, it is the context, not Mira's lexicon, which imposes limits on the resources she may employ (see, e.g., Kasper & Kellerman 1997: 8), thus making her lack of success less indicative of limited L2 repair skills. The same is clearly not the case for Emil or Arne (see Extracts 46, 47): Neither learner, when initiating their instances of repair, is involved in an activity that can be understood as delicate (see Lerner 2013: 104) and therefore threatening to social solidarity. Though Arne is attempting to produce a disagreeing counter to Tim's prior turn, taking a contrary stance to his co-participant's suggestions is mandated by the task. Therefore, the consequentiality of the actions taken in the course of the role-play for the actual relationship between the participants is limited, rendering efforts similar to Mira's largely unnecessary and therefore unlikely to occur. In the instances in which code-switching to German is treated as the abandonment of an attempt at finding a fitting English item or unit (e.g. Extract 48), a case may be made for context-imposed limitations on resources occasioning the failure of repair – for instance, it could be argued that since the interaction takes place between two EFL learners who know that they share their L1, language alternation would be a perfectly acceptable resource if it were not for the context requiring the learners to use English. However, if such reference to the context were to be made, then the restriction to English as the sole medium of interaction would be the root cause of the search, rather than the reason why it cannot be completed successfully – failed attempts at repair would still be indicative of a lack of

sufficient L2 resources, rather than of limitations imposed by contextual contingencies.

In sum, while in my data repair attempts only rarely result in failure, with relevant cases making up less than 10% of my collection in total, an analysis of the available instances reveals some first patterns (see Figure 13).
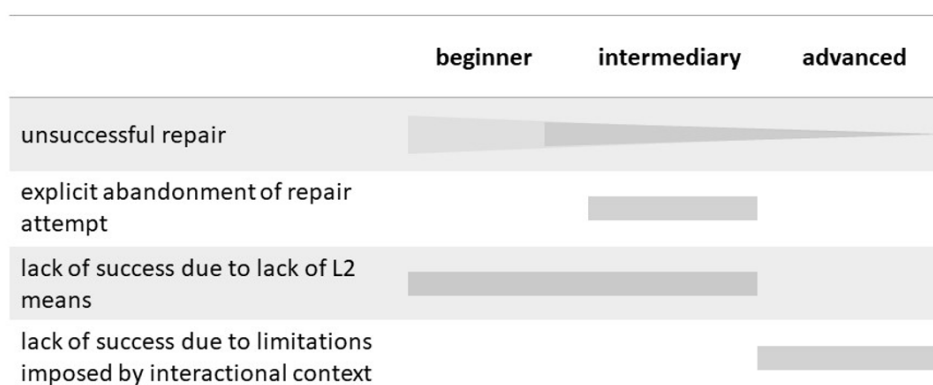

Figure 13. Unsuccessful repair across learner levels

In my analyses so far, I compared the different learner levels, which yielded the following observations.

- Generally speaking, most instances of unsuccessful repair can be found in the intermediary-level learners' data, and more precisely, among the cases produced by the 7th-graders. The more advanced learners, both those at a higher intermediary stage and the university-level EFL learners, usually are successful in resolving issues of speaking, hearing and understanding, and thus display an advanced ability to repair interactional problems. Furthermore, the cases that do occur at the advanced level notably differ from the others found in the data in terms of the context in which they appear, and consequently with regard to the cause underlying the speaker's inability to accomplish repair (see below).

- Within the beginner-level learners' data, only a single case of unsuccessful repair can be found. Once again, that there are no further instances likely can be explained with the tasks which the novice learners work on: They usually have to complete a script by filling in familiar vocabulary (see section 5.1.2.2), and furthermore often have access to supplementary material (e.g. section 5.2.6). In a number of cases, the latter aspect is arguably why the learners are able to successfully accomplish repair – I will return to this matter in more detail in section 5.4.4. Similar to points I have discussed earlier (e.g. in sections 5.1 and

5.2), future research will have to investigate if requiring novices to produce (largely) unscripted talk will yield more cases of unsuccessful repair. I nevertheless propose *the (frequency of) occurrence of unsuccessful repair* as one candidate criterial feature that may be used to assess L2 repair skills.

-   For the beginner- and intermediary-level learners, unsuccessful repair usually is occasioned by their (temporary or sustained) lack of linguistic resources. The same does not hold true for the cases found in the advanced-level learners' data: The context itself clearly limits which resources may be used to complete the TCU-in-progress, and thus impacts the likelihood of the searches' success. It is therefore the lower-level learners that more clearly show limited L2 repair skills. This observation suggests that a consideration of the *apparent root cause behind the failure* may prove a helpful criterion. Notably, this candidate criterial feature rests on similar observations as, and thus clearly is reminiscent of, one I have posited in section 5.2.6, namely the (extent of) use of searches for turn-design optimisation. Further research will need to ascertain if those criteria are mutually predictive of each other, with a detailed analysis of one permitting conclusions regarding the other, and thus reducing the analytic load.

-   While in my data, neither the beginner- nor the advanced-level learners explicitly mark the abandonment of repair attempts, the intermediary learners always do. They either produce an L1 (-based) abandonment token (e.g., 'egal', Extract 47; 'ja', 'joa', 'mja'), or indicate lack of success in finding a fitting L2 item or unit due next by switching to German to conclude the TCU and problematising this course of action. This may be interpreted in several ways. For one, this may be another way in which the 7th-graders systematically deviate from patterns of repair design observable across all other learner levels (see section 5.2.7). It is hard to posit a clear design pattern for the beginner-level and advanced-level cases, however, given the sparsity of unsuccessful repair in these data sets. Alternatively, considering that the advanced-level cases clearly are distinct from the lower-level ones, the use of abandonment marking by the intermediary learners may be expressing, if not growing L2 repair skills, then increasing L2 IC in general, if the abandonment marking can for instance be shown to serve to precisely indicate interactional boundaries. This would be in line with similar observations I made in section 5.3. Eventually, then, *how*

the abandonment of attempted repair is indicated may emerge as another candidate criterial feature. Further research on the basis of more relevant cases especially from the beginner and advanced-level learners is needed to that end.

So far, I have been discussing the cases produced by the 7th-graders as one homogenous collection. It bears note, however, that instances of unsuccessful repair are not evenly distributed in the cohort: Most occurrences can be attributed to Arne and Tim, with Maik producing one relevant case (see Figure 14 below).

	Tim	Arne	Maik	Leo	Gunnar
instances of unsuccessful repair	�	▮	▬		

Figure 14. Distribution of cases of unsuccessful repair within the 7th-grader cohort

Relating this distribution to my observations in earlier chapters also allows for some interesting insights. Notably, it is Leo and Gunnar, who also tend to draw on bricolage least often (see section 5.2.5), and on occasion show burgeoning movement toward the advanced-level learners' repair conduct (see sections 5.2.6 and 5.2.7), whose attempts at repair are always successful. Conversely, Tim, whose repair work I have argued earlier (e.g. section 5.3.6.1) at least in part is similar to that of the beginner-level learners, and who quite clearly has fairly low-level L2 skills in general (section 5.2.5), is responsible for a number of the cases of unsuccessful repair. Not only does the *(frequency of) occurrence of unsuccessful repair* therefore appear to be just as useful for distinguishing between learners of one cohort, but these observations may in fact provide additional evidence that the candidate criterial feature could be useful for differentiating beginner, intermediary and advanced-level learners' L2 repair skills.

It is curious to note that out of the members of the cohort, the two learners that produce the vast majority of unsuccessful repair attempts (Tim and Arne) happen to be role-play partners. As I noted before, Tim displays extensive problems with successfully interacting in general: In comparison to his peers, his linguistic proficiency appears very limited, preventing him from accomplishing interactional aims to the same extent as the other 7th-graders are able to (e.g. section 5.2.5). That there are several instances of unsuccessful repair in his talk thus is not surprising. Arne, on the other hand, generally does not seem to be this limited. He recurrently shows his ability to at

least produce syntactically complete and fairly L2-like TCUs. Still, he appears very quick to abandon his ongoing attempts at repair, especially considering that his talk shows that given additional time, he is (at least occasionally) able to satisfactorily deal with the issue at hand after all (see Extract 42 in section 5.3.6.1). One possible reason for this may be that he finds himself influenced by his partner's L2 interactional skills, with Tim's clear weaknesses potentially a) lowering Arne's motivation to try harder, b) depriving Arne of a possible source of assistance he could draw on if he is truly unable to resolve the trouble by himself, or even c) establishing the abandonment of repair as something largely unproblematic. Either way, this distribution of instances serves as clear evidence that repair skills, just like the other aspects of IC, are indeed never entirely the 'property' of any individual speaker, but co-constructed (see Kley et al. 2021: 187 for a similar point).

5.4.4 Cases of 'Assisted' Repair

Further differences in repair conduct emerged when I considered those instances in my collection in which a learner produces some candidate solution for a given problem, but there is evidence that they did not accomplish repair success (solely) by merit of their own L2 repair skills. In the remainder of this section, I will discuss those cases in which my learners, to resolve an issue at hand,

- demonstrably depend on their co-participant in some way (in particular by drawing on their prior talk)

   or

- clearly rely on interaction-external supplementary material.

That is, I will look at cases in which they require some sort of 'assistance' to resolve the issue, and discuss how such instances serve as a display of limited L2 repair skills.

5.4.4.1 Accomplishing Successful Self-Repair by Utilising Co-Participant Talk

Of course, there are those instances in which the trouble-source turn speaker initiates repair, but then requests assistance from a co-participant (or, someone co-present in the recording context), engendering straightforward SIOR. Some of these, I have discussed previously (see Extracts 23, 40). However, more relevantly in particular for distinguishing between the members of the intermediary-level cohort, there appears to be another way in which a learner can draw support from their co-participant: When facing an issue of speaking, a learner may *obtain the resources they need from prior*

talk produced by their partner. Illustration for this is provided through Extract 50, which expands on, and refocuses, Extract 28 discussed earlier. It follows Tim's launch of the role-play portion of the recording: In response to his partner's first turn, Arne produces a suggestion on what they should watch during the fictitious TV night they are supposed to be planning (lines 01-02), and then explicitly yields the turn (line 03).

```
Extract 50: we can watch (SSL_191108_4, 3:13-3:45)
01   Arn:   °h we can watch ä::hm: (0.5) TRAMpolining,=
02          =°h because it's a world (.) CHAMpionship,_h°
03          ähm (1.0) <<Ger> JOA;>
04          (1.0)
05   Tim:   ähm: °h     ▫     (1.4)     ▫
            >>gazing at notes-->
                         ▫closes lips ▫opens mouth
06   Arn:   ((lau[ghs))     ]
07 → Tim:        [((laughs))] °h we: (.) +can (.) watch: (-)
     tim:                               +slight head-tilt
                                         left-->

   →        uh +FOOTball,
               +
08 →        *~°h ähm:~  *because (0.4) öh (0.7)
            *gazes away *lowers gaze in steps
             from notes
             ~lowers
              notes  ~
   →        ähm:*_((click)) ~  (.)  ~ world championship (0.6)
                *gazes at notes-->
                          ~raises
                           notes  ~
            ähm: (0.4) play GER~man *  versus    *    ~
                                    *turns head  *gazes at
                                     and gaze to  A's notes-->>
                                     Arne
                                   ~lowers and turns notes~
            ENGland;_h°
09          (0.6)
```

Following Arne's turn conclusion, there is a lapse (line 04) before Tim initiates his turn with a (lengthened) hesitation marker, followed by an in-breath and a notable

unfilled pause. As I mentioned before (see Extract 28'' in section 5.2.5), this constitutes another instance of bricolage (as described by Gardner 2007) in Tim's talk, one that Arne reacts to with a display of impatience (line 06). The design of the turn which Tim eventually launches shows remarkable parallels to Arne's prior contribution both in terms of structure and lexical design. In fact, Tim's first TCU (line 07) is nearly identical to Arne's first TCU, except that 'trampolining' has been replaced with 'football' to account for the different projects the learners are supposed to pursue. Just like Arne did, Tim follows up on his suggestion with an explanation in the form of a causal clause introduced by 'because' (line 08) – after yet more speaking trouble, he even draws on what is essentially the same argument, namely that there is a championship currently taking place.

While he does expand on this second component of the turn by presumably referring to a specific game that would be worth watching (`play GERman versus ENGland`), most of Tim's utterance appears to be copied or adapted from Arne's prior turn. This fits with my earlier observation that Tim recurrently fails entirely to successfully repair his troubles, and further cements the impression that his L2 repair skills are very limited. Even when he does (apparently) manage to overcome his issues with producing a next-due unit of talk, this is not necessarily something he accomplishes under his own power. Instead, he copies (from) his co-participant's prior talk to be able to contribute to the role-play at all, displaying a severely limited ability to accomplish relevant actions and pursue his own project.

While Tim is not the only intermediary-level learner who ends up drawing on his co-participant's talk to resolve an issue, when others do so, then usually to deal with a different type of trouble source. Just prior to Extract 51, Leo claimed that football is boring, since the only thing that happens is a ball being 'played back and forth'. Maik now disagrees with this.

Extract 51: also action (SSL_191108_5, 3:52-4:20)
```
01   Mai:   $no;=it's ä:h §°h also ACtion:,=|=when: °h äh::
             $gaze raised  $gazes to
              from notes     notes-->
02          @$if: a (football::/footballe:r) °h öh (b) $öhm
            @tilts head right
             $scratches brow with RH                      $moves
                                                          RH to
                                                          lap
```

236

```
              (0.4) a:re making §°h (0.5) a GOAL,
                                $gazes to down-right-->
03            (0.8)
04   Mai:  and the stadium: (o?g:)_äh: are standing & UP;  &=
                                                    &slight
                                                     move
                                                     upward&
05 →          =an:d °hh $äh      $and it's rEally$:   it's: $
                        $raises  $LH starts       $circles
                         RH and    moving           both hands$
                         shakes it
    →         (.) §ä$hm:_((licks lip))
                  $gaze to notes-->
                    $hands moved back to lap-->
06 →          <<((click))> °hh> (0.6)
07 →          $§yeah;=$it's     $ALso action:.
              $raises $points RH $returns RH to lap
               RH       at Leo
               $gazes down-->
08            i§n: in the | IN it.
               $looks at notes-->>
```

To accomplish this disagreement, Maik endeavours to produce his own, positive assessment of football. This is what he starts his turn with (line 01). Subsequently, he elaborates on why he has a positive opinion of this sport. From what he says and does, it can be taken that not only does Maik consider football games as such exciting, but the atmosphere in the stadium significantly contributes to his appreciation (lines 02-04). To conclude his argument, Maik launches another assessment (line 05). However, at a point where an assessing expression (most likely an adjective) would clearly be due next, namely after he has produced the intensifier rEally (line 05), a noticeable halt in progressivity ensues. First, there is sound lengthening on the intensifier. Afterwards, Maik produces a restart of the copular structure (also featuring lengthening), which he follows up on with a micro-pause and a hesitation marker. Even before he halts the unit-in-progress verbally, he may be indexing trouble bodily-visually: As he starts the assessment, first his right and then his left hand start moving, synchronising into a circular motion concurrent with the vowel lengthening on 'really'. When he produces the hesitation marker, Maik moves his gaze to the notes he is holding in his left hand, possibly indicating that he still needs more time to resolve the issue at hand.

Indeed, there is yet more delay, including a notable unfilled pause (line 06), before Maik projects the upcoming resumption of the TCU with the marker `yeah` (line 07).

   This halt in progressivity is clearly more extensive than the one that briefly delayed the completion of Maik's first assessment in line 01, and thus displays more pronounced struggle with finding some next-due item. Furthermore, the resolution of the halt provides evidence that the repair is considered less-than-fully successful. For one, Maik reproduces the assessing item he had utilised in line 01. The use of 'yeah' may also be telling: As described by Wong (2000: 61), 'yeah' can be employed to mark the abandonment, and consequently the failure, of a search. While his attempt at repair certainly is not entirely unsuccessful, Maik does indicate that he is 'settling' for a non-ideal solution through his bodily-visual conduct: Before reproducing the assessing item, `action`, he raises his right hand, and very briefly gestures in Leo's direction. The gesture clearly indicates who Maik considers to be the 'source' of the assessment term he uses. Indeed, a review of one of Leo's earlier utterances (see Extract 1'', partially reproduced and revised from Extract 1) reveals that Leo had been the one to originally draw on the word 'action' for assessing purposes.

Extract 1'': look sailing (SSL_191108_5, 2:46-2:54)

```
01    Leo:    i'd like to: äh_look  *+SAIling,=
              >>looks forward       *gazes right-->
                                     +tilts head right-->
02             =*°h becau(se)       +*there are ? ä:h ▫    (.)    ▫
               *gazes further        *gazes back to own notes-->
               right
                                     +head straightened-->>
                                                      ▫licks lips▫

              (--) * (.)
                   *gaze flicks right-->
03  →         there *are ACtion;
                    *gaze returns to top of notes-->>
```

Just after Maik's first contribution to the role-play, Leo produces his own suggestion on what to watch during their TV night (line 01), and then explains his choice by stating that sailing is an exciting sport (lines 02-03). To express this notion, he draws on the lexical item `ACtion` (line 03) in a way that is reminiscent of how it would be used as a loanword in German: Referring to turbulent, entertaining scenes and incidents

("Action, die", 2022, website[61]). This makes the item available for Maik to use in his own turn (Extract 51) to complete his assessments.

On principle, the cases analysed in Extracts 50 and 51 are similar: A learner who is currently dealing with a problem of speaking draws on prior talk produced by their co-participant to resolve this issue. However, Maik does so in order to fill in a single syntactic slot, whereas Tim copies the entirety of Arne's prior turn. While Maik only requires help in completing the TCU-in-progress, it is unclear whether on his own, Tim would have been able to produce a turn at all. In addition to the fact that he recur-rently has problems successfully accomplishing repair, the extent to which Tim uses his co-participant's talk when struggling to deal with problems of speaking clearly displays that his L2 repair skills are at a fairly low level. Maik, in contrast, shows more advanced L2 repair abilities: Usually, he manages to resolve his problems on his own, only on occasion drawing on his partner's talk for lexical material.

5.4.4.2 Accomplishing Successful Self-Repair by Utilising Interaction-External Material

The second phenomenon of 'assisted' repair I want to discuss does, in a manner, re-semble the first strategy: Just as learners may draw on their fellow participants' talk to supplement their own resources, they can *use material external to the interaction* they are engaged in. The latter occurs more frequently in my data, and is especially preva-lent at beginner level, where such cases make up roughly one fifth of the entire collec-tion. Extract 52, taken from the picture-puzzle game activity I previously described (see Extract 19), contains an illustrative example. Jim is the first of his group to take a turn. He formulates three hints with little to no trouble (lines 01, 03, 05), following the formula 'A man/boy/woman/girl is wearing [colour] [clothing item]', before he en-counters an issue with completing the fourth clue in line 07.

```
Extract 52: blue-red trousers (QUA-LiS NRW 03.3, 0:19-0:41)
01   Jim:   (ä::h/a::) ma:n it's WEAring: blue JAcket,
02          ((1.5 silence; Jim may be carrying out embodied
             conduct, but task sheet obscures video))
03   Jim:   green SHOES?
04          (1.7)
```

```
05   Jim:    ((click))_°h green HAT?
06           (0.9)
07 → Jim:    ((click)) *blue:: red °h*h h° (öh)_µ<<nasal> hh°>
                         *looks left   *looks to right, to
                                       poster-->

                                              µoverlay of
                                              poster showing
                                              'winter
                                              clothes'-->>

     →       (0.6) # (0.9)                 #*TROUsers?
                                            *gazes back at
                                             picture
                                             puzzle-->>
                   #stands up, leans forward #sits down again
```

After Jim produces the colour adjectives (blue red, line 07), he suspends the progress of his ongoing TCU. First, he audibly breathes in and out, then he produces a very breathy hesitation marker as well as an extended unfilled pause. During the delay, Jim moves his gaze to his right. Most likely, he is looking at a poster depicting a variety of 'winter clothes' labelled with the relevant vocabulary items, since the recording at this moment overlays a shot of that poster. During the unfilled pause, he stands up and leans forward in the same direction. He only reorients to the main interactional space when he resumes the TCU: As he produces the target item (TROUsers), he moves to sit back down again, and also returns his gaze to the picture book in front of him.

As can be seen, then, when Jim encounters this lexical issue, he quickly turns to a source of information external to the interaction at hand, to material that he knows contains the information he needs to complete his TCU. Noticeably, he shows orientation to the poster right from the start of the delay – there is no attempt to resolve the issue on his own first. The same can be observed in the other available cases[62]: The

---

[62] Most cases of this phenomenon within my novice learners' collection stem from the same activity. This does not mean that it exclusively occurs there – however, the other recordings containing candidate cases are edited in such a way that the relevant learners' bodily-visual conduct is largely unavailable for analysis. Such is the case in Extract V, taken from the same recording as Extract 22.

```
Extract V (QUA-LiS NRW 04.4, 0:21-0:37)
01   Eva:    my favourite pEt;=|=is a RABbit?
02   ???:    YE:S?
03   Eva:    °h the colour is WHI:::TE,
04           and GRE[Y?]
             >>looks at co-participant(?)-->
```

trouble-source turn speaker turns their gaze in the direction of the poster as soon as progressivity is halted, or even before the search is launched. I have noted before that the lexical items occasioning these instances of searching are central to the current teaching topic, and arguably constitute (one of) the main teaching target(s) of the task at hand. In consequence, they should be recoverable through a search. Of course, drawing on supplementary material can be considered a repair strategy by itself. However, that the beginner learners orient to it very quickly when they encounter (or even just anticipate) the unavailability of a next-due lexical item may be taken as an indication that their L2 repair-skills are limited – at the very least, it speaks for the learners' lack of confidence in their own capability of (quickly) resolving L2 speaking trouble.[63]

The context in which the learners are recorded significantly impacts which supplementary materials might be available to them for repair purposes: The beginner-level learners are filmed during their regular class time, and therefore have access to all the scaffolding means previously compiled when working on their tasks. The intermediary-level learners, on the other hand, not only are recorded outside of a regular session, but also are asked to carry out a task unconnected to the ongoing EFL unit. The only supplements available to them are the role-cards, including additional useful phrases,

```
05   ???:        [ Y]ES,
06 → Eva:   *(.) it u_li:kes:: HAµY?
            *looks up (to poster?)-->
                        µvideo cuts to poster -->
07 →        it doesn't li::kes (1.0) SAUsages-
08 →        mea:t and µ*BO:NES?
                      *>>-->>
                    µ
```

Being tasked with presenting her 'favourite pet' to some of her classmates, Eva talks about a rabbit. In line 06, the video shows a poster on the wall listing useful phrases and terminology ('It likes…'/'It doesn't like…', followed by a list of different foods, including all those mentioned by Eva). As she starts talking about her rabbit's food preferences, Eva moves her gaze, which before likely had been aimed at a co-participant, to the left and upwards, possibly to the above-mentioned poster. Unfortunately, rather than providing an overlay as in Extract 52, the video then fully cuts to the poster, and Eva is only intermittently being shown. Her bodily-visual conduct during the search in line 07 is therefore not available for analysis.

[63] This discussion may generate some relevant didactic insight: Supplementary material such as this, while doubtlessly helpful in that it can allow learners to participate in the task at hand even when there are lexical gaps, may reduce the learners' opportunities to encounter consequential trouble, and therefore prevent them from testing and recognising their ability to deal with it. As L2 IC becomes a part of FL classroom curricula, a more careful balance will need to be found to enable participation in interaction, while at the same time permitting the learners to exercise and develop their L2 repair skills.

and the notes they have taken themselves during the preparation time. It is therefore not surprising that instances of learners drawing on external material are far more frequently found in the novice-level data. However, there are multiple cases in which the intermediary learners do observably orient to their material, thus displaying that it is available for repair purposes. For one, the intermediary learners usually make sure to at least touch upon all three topical aspects which their role-cards indicate they should talk about (what to watch, what to eat, and how many people to invite). More notably, at times the learners draw on the useful phrases provided to them, although not necessarily to resolve a manifest issue of speaking. Tim's turns provide interesting insight into what may be a more indirect way of utilising supplementary material to deal with speaking problems. Consider the following data snippet, a reproduction of Extract 29', which depicts the very first turn within his role-play.

Extract 29''': what's watching (SSL_191108_4, 2:47-3:18)

```
01   Res:    TIM.
02           [<<p> needs to START;>]
03 → Tim:    [        ä:hm:      ] ((licks his lips))
     →       ▫    (0.9)    ▫ <<exhales> hh°>
             >>gazes at notes-->
             ▫opens mouth,
              then presses
              lips together▫
     →       ((click))_°h ä:hm: (1.7) w:ha:t (0.5) ähm a tee
     →       VEE night?_h°
04 →         ähm (1.0) and FRIENDS,_((laughs))
05 →         °h ähm: ((click)) (2.3) <<(Ger)> JA.>
                                          yes
06   Arn:    (0.9) ▫ (.) ((laughs softly))▫
     tim:          ▫closes lips, then
                      starts smiling▫
07 → Tim:    ((laughs)) what's <<:-)> *WATCHing,> ((smiles))
                                      *looks at Arne's notes,
                                        then at Arne-->>
08   Arn:    °h we can wa::tch ä::hm: (0.5) TRAMpolining,=
```

As I mentioned in section 5.2.5, the candidate TCU that Tim eventually produces in line 03 is not at all L2-like syntactically. In fact, it is only due to the high-rising final intonation that possible completion can be inferred. Even upon his finally producing a

potentially complete utterance in line 07, where rising final intonation combines with recognisably interrogative syntax into a format that may be understood as a request for information, the overall lexico-syntactic design of the turn does not easily lend itself to the ascription of any particular action. Produced like this in regular conversation, the turn would likely threaten intersubjectivity. In the context at hand, however, Tim can reasonably expect to be understood. For one, the role-cards provide a fairly detailed overview of the topics the participants are to discuss. Furthermore, they do not just supply the learners with information on their own role, but also summarise what their co-participant will argue for. In a sense, Tim therefore also relies on supplementary material to deal with issues of speaking. However, he does not use it directly, as a source of L2 lexical or grammatical means. Rather, he treats the information contained therein as a shared sense-making resource. That he needs to depend on this in his very first turn, which I had previously noted he would have been able to prepare for (ibid.), provides clear testament of Tim's rather basic L2 repair skills, further cementing the points I raised earlier in this section. Tim is rarely able to self-reliantly resolve issues of speaking, if he is able to resolve them at all. He either depends on his partner having access to sufficient contextual information to be able to ascribe action to his turns despite less-than-fully recognisable turn design, or more directly draws on his co-participant's talk to deal with problems of turn production (see previous section). In this, he differs from his classmates, who generally are able to produce talk that allows their partners to ascribe some action, something for which they do not need to draw (extensively) on their co-participants' talk, or to bargain on shared knowledge provided by the role-cards.

5.4.4.3 Summary

In sum, my analyses of cases in which repair is nominally successful (i.e., a candidate solution for the issue at hand is produced), but the learners drew on some sort of assistance to accomplish this, permitted me to make some interesting observations. In particular, they revealed differences between the 7th-graders (summarised in Figure 15), allowing for the recommendation of candidate criterial features that may help differentiate between learners of a cohort.

	Tim	Arne	Maik	Leo	Gunnar
learner draws on co-partici-pant's prior talk to resolve search			�		�
learner draws on co-partici-pant's talk to produce full TCU/turn	�				
reliance on mutual access to supplementary material for action accomplishment	�				

Figure 15. Distribution of cases of 'assisted' repair within the 7th-grader cohort

In particular, the data shows that at intermediary level, learners who encounter problems of speaking may, but do not necessarily, draw on prior talk produced by their co-participants to resolve them. They can do so for different purposes (to complete a unit-of-talk, or to be able to produce it at all), and, consequently, to different extents (utilising single lexical items, or copying/adapting their co-participant's utterance in structure and/or design). Although future research based on a much larger collection of cases of this phenomenon is needed to support or disprove these observations, at present I posit that one way in which the 7th-graders show differences in terms of their L2 repair skills is whether, and in which way, they observably *utilise resources from their co-partipants' talk* to deal with trouble in speaking. Rather basic L2 repair skills may be displayed through instances of large-scale copying, as done by Tim, who (as I have shown in section 5.4.3) also is very likely to not be able to resolve his problems at all.

Furthermore, my learners (most prevalently the novices) recurrently utilise supplementary material in order to deal with problems of speaking. Although the intermediary learners may have less opportunity overall to make use of the strategy due to the context of recording, their data still contains multiple cases in which a learner arguably relies on supplementary material when attempting to deal with such trouble, though in a notably less straightforward way than the novices' direct utilisation of those means as a source of L2 lexis. Strikingly, it is Tim in particular who produces those cases – once again he shows parallels to the beginner-level learners' repair conduct, and simultaneously differentiates himself from his classmates. It appears, then, that learners may show more or less advanced L2 repair skills by (not) *displaying a clear dependency on supplementary material* for being able to produce a candidate solution for a

given problem.[64] However, it is questionable how useful such a candidate criterial feature would be in an assessment context. Firstly, learners are unlikely to have much of any such material available to them while they undergo a test task. Tim's cases, which are produced in an environment that does not differ overmuch from what a test setting might look like, could help argue that more indirect reliance on supplementary material remains a possibility even then. However, the task design would need to allow for it. Since I have noted before that tasks which permit such indirect reliance on supplementary material also are likely to impose general restrictions on the L2 repair skills which learners can display (see section 5.1), it appears counterproductive to attempt to include this aspect into assessment procedures.

5.4.5 Summary: Repair Success

In this section, I reviewed the cases in my collection in which the learners were either fully unable to resolve the issue at hand, or observably drew on either their co-participants' talk or on interaction-external supplementary material to accomplish repair.

I was able to show that while overall a rare phenomenon, cases of unsuccessful repair cluster in the 7th-graders' data. When unable to resolve an issue of speaking, these learners explicitly abandon their repair attempts, in contrast to the novice- and advanced-level learners. I also was able to show that at advanced level, lack of success results from contextual restrictions rather than a general lack of linguistic material. Overall, then, the advanced-level learners clearly display more sophisticated L2 repair skills than the intermediary-level learners.

A closer look at cases of 'assisted' repair revealed clear differences between the members of the 7th-grader cohort, largely underlining those already observable in terms of the frequency with which they are unsuccessful in accomplishing repair. One learner who recurrently abandons his repair attempts also shows weaker L2 repair skills by either needing to copy (from) his partner's talk extensively (structurally and

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[64] Together, the observations I reported on in this section may remind the reader of a Vygotskian perspective on (second) language acquisition (for an overview, see, e.g., Gass et al. 2020: 333-339) – indeed, the changes in repair conduct suggested by my data to indicate increasing L2 repair skills may be conceptualised as movement from object-regulation (ibid.: 334; dependency on supplementary material) and/or other-regulation (ibid.; reliance on co-participant) to self-regulation (ibid.; ability to (largely) accomplish repair without assistance).

in design) in order to be able to produce a TCU, or trusting that the mutual availability of information provided in the role-cards will ensure understandability of his talk.

Based on my observations, I was able to posit several candidate criterial features related to the occurrence of both unsuccessful and 'assisted' repair. Again, further research will be needed to test their usefulness for assessment practice.

5.5 Interim Summary

In this chapter, I investigated my L1 German EFL learners' repair work from four different perspectives (for a summary, see Figure 16 below).

Firstly, I considered the repair instance as a whole, reviewing which main types of repair occur in my learner data, and in which proportions. Furthermore, I investigated to which extent the learners can be seen to treat OIR and other-repair as dispreferred options, and thus to clearly display orientation to the generic preferences for SIR and self-repair reported by foundational CA literature. The analyses did not yield clear developmental patterns regarding the occurrence of the main repair types, but did allow me to posit learners' clear displays of orientation towards the preference for SIR over OIR as a candidate criterial feature for the assessment of L2 repair skills.

Secondly, focusing on repair initiation in particular, I investigated the practices which, in my data, are utilised most frequently for that purpose: Searches and bricolage. In particular, I reviewed my learners' use of bricolage, the searchables and broader issues occasioning self-initiation of repair via searching, and the bodily-verbal resources learners draw on to design their searches. This yielded a number of candidate criterial features: a) the (frequency of) occurrence of bricolage as an SIR practice; b) the speed and manner of resolving the problem occasioning bricolage; c) the (frequency of) occurrence of instances in which searches are used to optimise turn-design; and d) the diversity of bodily-verbal resources used for precisely locating the search(able).

Thirdly, having come to note in the course of my analyses that their L1 constitutes one resource my learners recurrently utilise for repair purposes, I dedicated a section to exploring this in more detail. I reviewed my data to establish for which repair-related tasks the learners draw on their first language, and more closely focused on how German may be used to accomplish self-repair (directly, through language alternation, or more indirectly, through ad-hoc translations). Here, I investigated not only which L1-based practices my learners draw on to resolve the unavailability of a next-due item or unit, but also in how far they treat them as (non-) permissible means to that end. My comparative analyses revealed several candidate criterial features, namely a) observable repair-related uses of the L1; the use of b) language alternation to L1 and/or c) ad-hoc-translating as practices for dealing with the unavailability of a next-due item or unit; and the orientation to d) language alternation to L1 and/or e) ad-hoc translating as (non-) permissible means for resolving such an unavailability.

Lastly, I took a particular repair outcome, namely unsuccessful repair, as a point of departure, although in the course of my analyses I also became aware of, and interested in, instances in which a learner accomplishes self-repair, but there is evidence that repair success is not (solely) based on their own L2 repair skills. I reviewed abandoned repair attempts, as well as those cases in which, to resolve problems of speaking, learners utilise a) their co-participants' prior talk or b) interaction-external supplementary material. My analyses showed that to assess learners' L2 repair skills, candidate criterial features to be considered are a) the (frequency of) occurrence of unsuccessful repair; b) the (apparent) root cause for repair failure; c) the utilisation of resources from co-participant talk, and how (extensively) this is done; and d) the occurrence of instances in which learners observably depend on supplementary material to accomplish repair.

Section	Analytic Foci	Candidate Criterial Features
Repair Types and Learners' Orientation to Repair Preferences (Section 5.1)	- use and proportion of main repair types - displays of orientation to generic repair preferences	→ clear displays of orientation towards the preference for SIR over OIR
Practices of Repair Initiation (Section 5.2)	- use of bricolage	→ (frequency of) occurrence of bricolage → speed & manner of resolution of bricolage
	- searchables and issues underlying searches - search designs	→ (frequency of) occurrence of optimising searches → diversity of bodily-verbal resources employed
L1-based Practices of Repair (Section 5.3)	- repair tasks correlating with L1 use - L1-based self-repair practices used to deal with unavailability of next-due item/unit - treatment of L1-based self-repair practices	→ observable repair-related uses of the L1 → self-repair via • use of language alternation • use of ad-hoc translating → orientation to • language alternation • ad-hoc translating as a (non-) permissible self-repair practice
Repair Outcome (Section 5.4)	- cases of unsuccessful repair	→ (frequency of) occurrence of unsuccessful repair
	- use of supplementary material and co-participant talk for self-repair	→ (apparent) root cause of lack of success → (manner of) utilisation of co-participant talk → displays of dependency on supplementary material

Figure 16. Analyses: Interim summary

I will provide a more detailed review of my findings in Chapter 7, along with some suggestions for further research. Before I do so, however, I would like to briefly discuss a more practical matter: The usability of the candidate criterial features I developed for assessment practice. While further analyses based on more comparable data of course are recommended to validate and support my findings, even once this has been done the identification of candidate criterial features for assessment only constitutes part of the process towards the construction of instruments allowing for the thorough and valid evaluation of L2 repair skills (and, eventually, L2 IC in general) grounded in the direct empirical investigation of learner data. Before any of the candidate criteria I identified can be used in actual scales and rubrics, further work is needed – it must, for instance, be ascertained whether, and to which extent, the candidate criterial features posited here are usable (i.e., practicable) in L2 assessment practice. I will share some first considerations on this matter in Chapter 6, alongside brief remarks on how my research may contribute to making L2 IC (and L2 repair skills, in particular) *teachable*.

6 Putting the Findings into Practice

I have now identified a range of aspects of L2 learners' repair work for which changes over time (i.e., across learners' exposure to, and thus growing experience with, the language being learned) can be observed, and which may therefore be useful for both describing the development of L2 repair skills and their assessment. It is beyond the scope of this book to conclusively ascertain whether, how, and to which extent the candidate criterial features proposed can be employed in teaching and testing practice, though I will take this chapter as an opportunity to discuss some first thoughts regarding this matter. I will start with a brief review of literature on the teachability of IC, and sketch where my findings may tie in with open issues formulated there (section 6.1). The focus of this chapter will be on summarising some considerations regarding the practicality for assessment of the candidate criterial features I proposed (section 6.2).

6.1 Interactional Skills as 'Teachables'

In line with the different conceptualisations of IC discussed in section 1.1.2, opinions vary on whether or not L2 IC is something that can be taught and assessed, and therefore should be incorporated into language teaching programs. For instance, if IC is understood to encompass knowledge of, and the ability to act in accordance with, the universal infrastructure underlying successful interaction acquired during L1 socialisation (e.g. Hall 2018, 2019), there would be no need to consider it a learnable relevant for L2 teaching. However, this study understands IC to be the sum of (language-sensitive) practices participants draw on to deal with generic interactional tasks (e.g. Pekarek Doehler 2018). In this sense, L2 IC does indeed constitute something that can, and must, be taught, learned and assessed (Kunitz & Kley 2021), since in most cases, a language is acquired to "be able to use it to operate effectively in society" (Barraja-Rohan 1997: 72; see also Kramsch 1986: 367). That being said, however, even accounting for the underrepresentation of the notion in frameworks and guidelines informing foreign language teaching (as discussed in section 1.1.4), it remains exceedingly rare for IC – or language use in interaction in general – to find any consideration in L2 teaching practice (Waring 2018: 62). This closely relates to the (assumed) lack of 'teachability' of interactional norms and practices, which are commonly considered 'too complex' to constitute valid teaching goals (Betz & Huth 2014: 140). However,

effective teaching of interactional skills may be prevented not by IC's general infeasibility for the language classroom, but rather by a lack of understanding of the nature and organisation of interaction (Barraja-Rohan 1997: 73). As Barraja-Rohan (1997) notes, if (conversational) interaction is taught at all, then this is rarely grounded in any specific theoretical basis (ibid.). At best, learners are familiarised with specific activity types, at worst, teaching is based on the (faulty) assumption that to foster interactional skills, it merely needs to be ensured that students engage in talk (ibid.).

As it is, research shows that IC can be taught to L2 learners at any level (Betz & Huth 2014: 148; see also Kley et al. 2021: 173), although there must be explicit instruction (ibid.: 148-149; see also Barraja-Rohan 1997: 73). A number of preconditions for effective L2 IC teaching have already been identified (Waring 2018: 57), including

- a clear conceptualisation and operationalisation of L2 IC, so as to enable the identification of specific teachables (ibid.; see also Galaczi 2014: 555);
- the actual identification of central teachables for which teaching units should be devised – in that matter, Waring (2018) suggests starting from core interactional skills, and identifying a set of relevant subskills (:58; see also Kunitz & Kley 2021);
- an overview of developmental trajectories relating to these teachables, to understand how increasingly sophisticated L2 IC may be observable in learner talk (Waring 2018: 57);
- the ability to make existing findings on L2 IC accessible to practitioners and learners (ibid.).

These preconditions are reflected in existing proposals for teaching interaction. A notable model has been developed by Barraja-Rohan (1997: 78-79, 2011: 488) and refined by Betz & Huth (2014: 150-151; see also Kunitz & Kley 2021).

Waring (2018) notes that to her knowledge, the aforementioned preconditions remain unfulfilled (:57). This study, however – although it is aimed at identifying candidate criteria for L2 IC assessment – does contribute relevant insight to the first three of those four preconditions, and thus provides for teaching L2 IC: Having uncovered such criteria, I have contributed to the operationalisation of repair as one of the core L2 interactional skills (and ultimately of L2 IC in general) by identifying at least some of the relevant subskills required to successfully accomplish repair of interactional trouble. With regard to those features, I also traced some developmental trajectories.

It is thus quite feasible that the insights provided through my analyses can reveal potential teachables regarding the interactional skill of repair, adding to those already proposed in previous literature (e.g. Wong & Waring 2010).

Even considering that my research, and future research like it, may provide the insight into L2 IC necessary for effective teaching, it must be recognised that there are genuine limits to its (current) teachability. One central issue is that teaching L2 IC requires resources not yet commonly available in teaching practice, such as teaching personnel familiar with CA methodology (or at least teaching material accessible to practitioners without training in CA) and sufficient time to focus on this additional learning objective (Waring 2018: 62; see also Konzett-Firth 2021; Kunitz & Kley 2021). In lieu of curriculum changes facilitating the rectification of those limitations, Waring (2018) proposes that a more realistic approach to including IC into language teaching may be to topicalise interactional matters whenever existing materials provide an opportunity (:64). However, even as these limits persist, practitioners' awareness of the shortcomings of traditional language teaching approaches grows, and so does an appreciation of social interaction as a possible main teaching objective (see, e.g., Reinhardt & Barth-Weingarten, in prep.).

6.2 The Practicality of the Candidate Criterial Features Identified: First Considerations

When discussing the candidate criterial features suggested by my analyses in section 5.4.4, I already noted for one of them – whether or not learners clearly show dependency on supplementary material to accomplish (self-) repair – that it may be infeasible for assessment practice: To include this criterion, learners would have to be provided with supplementary material, which likely would otherwise impede the display of (interactional) skills. I now return to this kind of consideration. As the long-term objective of this study is to contribute to the development of assessment instruments (e.g., rubrics) which are a) based on direct emic analysis of learner talk as well as b) accessible to, and usable by, L2 teaching and testing practitioners, it is pertinent to conduct at least a first review of the *practicality* of the candidate criterial features I proposed (i.e., their usability for assessment).

In the following, I will summarise my thoughts on

- the *knowledge* that a practitioner would need to have available, or have to acquire, in order to be able to use the criteria I proposed for assessment;

- the amount of additional analytic *effort* practitioners would need to invest in order to be able to use the criteria for assessment (i.e., could the features be used in on-line assessment, and thus be included in established assessment routines, or would additional time be needed to conduct analyses);
- the amount of *data* that would be required in order to gain reliable insight into a learner's performance regarding the criteria I proposed (i.e., how many cases of a certain phenomenon would need to occur, how much talk would the learner need to produce for there to be enough cases of a certain phenomenon).

This review is meant to facilitate future discussion on which of the candidate criterial features proffered might usefully be combined into a rating scale for L2 repair skills, and what we, as researchers pursuing the development of assessment instruments for L2 IC, would need to provide to practitioners to enable them to utilise such a scale. Analogous to the nature of my research as a pilot study, and in recognition of the fact that the matter of practicality cannot be (fully) resolved prior to a first practical application of the candidate criterial features, I will only share first thoughts on this issue, not a comprehensive overview of all aspects relevant to that discussion.

6.2.1 Knowledge Requirements

To utilise any of the candidate criterial features I posited, practitioners would need to acquire at least some basic knowledge of the CA notion of repair, as well as of central terminology and concepts related to the repair organisation. For some of the candidate criteria suggested, this may prove sufficient: To be able to review learners' performances with regard to whether or not the speakers display orientation to the preference for SIR over OIR, or whether and to which extent they draw on their co-participant's talk to accomplish self-repair, practitioners may only need a good grasp of the basics of the generic organisation of repair (including the steps involved in an instance of repair, the main repair types, etc.; see Chapter 3), an understanding of how to recognise an instance of repair (i.e., an overview of initiation cues, repair operations; ibid.), and insight into some other fundamental CA notions (e.g., preference; see section 2.3.4). Teacher trainees have previously deemed this kind of knowledge fairly accessible even to novices to the CA methodology (course participants, personal communication, January, 2022), provided that there is appropriately focused input and clear illustration of the relevant concepts and phenomena. While other knowledge may be needed even for

the use of those criteria, it would be largely unnecessary to explicitly include such aspects into trainings familiarising practitioners with the criterial features proposed here: For anyone regularly carrying out (E)FL language assessment, it can likely be assumed, for instance, that there is the ability to recognise structural and design similarities between a learner's turn and their co-participant's talk.

Many of the candidate criterial features I posited would, however, likely require more than this basic background on repair and the repair organisation. For one, it may be necessary for practitioners to develop a solid understanding of, and the ability to identify (and delimit), particular phenomena and practices. This applies to any of the criteria related to the use and design of searches and bricolage – they necessitate practitioners to be able to identify relevant instances of these practices, and distinguish instances of bricolage from searches so that the frequency of neither phenomenon is inflated or diminished (see section 5.2.1). Utilising the occurrence of optimising searches as an assessment criterion would require the ability to recognise that phenomenon, and distinguish it from cases in which searches are instantiated due to limited L2 linguistic ability (see section 5.2.6). Other criteria would require the acquisition of very specific information. To review the learners' use of bricolage, for instance, teachers and raters need to know the difference between initiating and launching a unit at talk (see section 5.2.1).

Further increasing knowledge requirements, practitioners generally would not merely need to memorise new information – they also would have to become able to apply this knowledge to data using core principles of CA methodology (see section 2.1.1). Thus, to be able to utilise the candidate criterial features posited, practitioners would need to acquire additional analytic skills. To review data in terms of what may have occasioned instances of unsuccessful repair, for instance, they require the ability to adopt the CA mindset, and approach the data qualitatively, inductively, and emically. More so, some features necessitate that prior analyses be carried out before the actual assessment takes place: To investigate which resources (beyond the core design characteristic for the learner group at hand) learners draw on for designing their searches, it would first be necessary to ascertain what that core design is (see section 5.2.7).

Clearly, then, to enable practitioners to utilise the candidate criterial features I proposed, further work by researchers in the field will be necessary. It will be up to us to

develop training seminars and materials tailored toward providing practicing and aspiring teachers and raters with a) the theoretical-conceptual knowledge they need, b) an opportunity to gain analytic experience, and c) resources for self-study, and for revisiting concepts and analytic challenges in their day-to-day work.

Considering that there is some terminological overlap between the CA and the SLA conceptualisations of repair (see section 3.2), it may be tempting for practitioners to rely on their existing knowledge when reviewing learner talk with regard to a number of the candidate criteria proposed. It is likely, for instance, that L2 teachers and raters already have an idea of what 'unsuccessful repair' is, and how it can be identified in learner talk, based on how repair (success) is conceptualised in the SLA framework (see section 5.4). In some cases, such prior knowledge may prove problematic. Since CA understands 'unsuccessful repair' quite differently, for instance, relying on SLA-based knowledge when reviewing learner performances with regard to the (frequency of) occurrence of unsuccessful repair likely would yield very different insight into a learner's current L2 repair skills. Before such candidate criterial features can be included into assessment practice, it is therefore necessary that we develop trainings that provide both an explicit introduction to relevant CA concepts and terminology, and insight into how CA and SLA takes on these concepts differ from each other. On other occasions, however, a solid prior education in foreign language acquisition and teaching should prove facilitative. For instance, teachers and raters who are familiar with the notion, and types, of communication strategies (e.g. Tarone 1981) will likely need less input to become able to investigate the occurrence of language alternation and ad-hoc translation as self-repair practices within a learner's performance, requiring only clarification of the CA-specific notions.

In sum, the candidate criterial features I posited vary in terms of the types and amount of knowledge required for their utilisation. Taking into consideration the aspects discussed in this section, the knowledge requirements can be scaled from basic to extensive (see Figure 17 below).

Candidate Criterial Feature		Knowledge Requirements (beyond repair basics)
(manner of) utilisation of co-participant talk	basic	- ability to ascertain similarities (syntax, lexis) to co-participant talk
clear displays of orientation towards preference for SIR		- notion of preference (+ design features)
self-repair via language alternation/ad-hoc transl.		- ability to identify L1 use for self-repair after searches and bricolage
observable repair-related uses of the L1		- ability to identify L1 use for repair purposes → avoid equation L1 use = problem
orientation to language alternation/ad-hoc transl. as (non-) permissible self-repair practices		- ability to identify L1 use for self-repair after searches and bricolage - knowledge of means displaying problematicity
(frequency of) occurrence of unsuccessful repair		- CA understanding of unsuccessful repair - identifying features of unsuccessful repair
(frequency of) occurrence of bricolage		- ability to identify bricolage - ability to distinguish bricolage from searches
speed and manner of resolution of bricolage		- see previous cell - specific aspects: initiating vs launching unit; average halt in progressivity - ability to assess L2-likeness of repair solution
(frequency of) occurrence of optimising searches		- ability to identify searches - ability to distinguish searches from bricolage - ability to ascertain issue behind search
(apparent) root cause of lack of success		- awareness of possible causes behind repair failure - ability to ascertain cause behind failed repair
diversity of bodily-verbal resources employed for searching	extensive	- overview of design features usable for searching - knowledge of core design - ability to ascertain if cues used for contextualisation

Figure 17. Knowledge requirements

This ranking does not straightforwardly translate into relative (im-)practicality of these candidate criteria, however. Even when the knowledge requirements are quite extensive, this may not necessarily entail an increased analytic load compared to established assessment practice – I will next review the analytic demands set by the candidate criterial features.

6.2.2 Analytic Requirements

Presupposing that the knowledge requirements discussed in section 6.2.1 are fulfilled, and that practitioners have the practice necessary to review learner performances with regard to the candidate criteria proposed, they could straightforwardly include a number of those criterial features in existing assessment routines in which learners' talk is evaluated on-line (i.e., as it is produced). This would apply, for instance, to whether or not a learner clearly displays orientation to the dispreferred nature of OIR. To ascertain

256

this, it appears sufficient for practitioners to identify cases of OIR, and to take a general note of whether there are indices that the learner treats them as dispreferred (e.g., delay of OIR, bodily-visual cues typically signalling trouble prior to the realisation of OIR), while an in-depth review of the exact design features utilised would not be needed. This being the case, practitioners would likely be able to review learner performances for this feature even as they also track the content and linguistic design of learners' utterances. It may be similarly unproblematic for teachers and raters to add a survey of a) the utilisation of L1-based self-repair practices and/or co-participant resources as well as b) the frequency of unsuccessful repair to their assessment.

Needless to say, basing the assessment of L2 interactional skills on a review of recordings would be preferable to merely conducting an on-line evaluation of learner performances. When working with recordings, practitioners may, for instance, be able to supplement their observations regarding a learner's orientation to the preference for SIR over OIR by carrying out a review of how frequently OIR occurs in the learner's talk, though in the interest of efficiency and practicality, this may be considered a secondary concern only. What could prove especially useful for such a review are tools like VEO (Video Enhanced Observation; Seedhouse 2021), which would allow raters to tag notable points in a learner's performance to come back to for final assessment.

That said, for some of the candidate criterial features I proposed, on-line assessment would still be possible, though not highly advisable. The occurrence of bricolage, for instance, may be ascertained while observing learner performances, once again given that the practitioner has sufficient practice in differentiating instances of bricolage from cases of searching. However, it is precisely because of the close resemblance between the two phenomena and the resulting danger of mistaking how frequently they occur that it is highly recommendable that this feature be assessed when recordings are available, to allow for further looks at identified cases. To determine how a learner orients to L1-based self-repair practices, an overall impression may similarly be generated through on-line observation, though far better insight can be gained by carrying out more detailed analyses contingent on the availability of re-watchable data.

Still, all candidate criterial features mentioned thus far would not require adjustments to practitioners' assessment routines. The inclusion of other criteria, however, would entail detailed analyses of learners' performances. Practitioners thus would be faced with a clearly increased analytic load. In order to establish whether a learner utilises optimising searches, for instance, not only is there a need to identify relevant

cases of searching (and to ensure that no instances of bricolage are included), but fairly detailed qualitative analyses of multiple instances would be necessary to acquire meaningful insight into the extent to which searching is done in order to find the 'mot juste', rather than to maintain progressivity. Even at lower levels, where the occurrence of one instance of this phenomenon may already be very significant, this case would first need to be found (or shown to be definitely absent) through qualitative analysis as well. A robust evaluation of learner performances with regard to such a feature could not rely on mere scanning of data, even if practitioners are provided with sample cases to which they could match learner talk.

It still needs to be ascertained if all candidate criterial features whose inclusion into the assessment process would result in such an increased analytic load actually are required for a comprehensive assessment of learners' L2 repair skills. Notably, my data suggests a correlation between the frequency of occurrence of bricolage as a practice for SIR and whether or not bricolage results in extensive halts in progressivity without full, L2-like resolution of the issue at hand. It is thus possible that reviewing qualitative aspects of the use of bricolage "can[not] add variance" (Roever & Dai 2021: 33) beyond that which is already provided by considering the (frequency of) occurrence of bricolage. Future research will need to investigate this matter.

To summarise, candidate criteria do not only differ regarding the knowledge requirements they would set, but also in terms of the analytic demands they would impose on practitioners. Some criteria may well be includable into existing assessment routines. In those cases, while access to recordings of learner performances would certainly be beneficial, lacking it does not preclude the utilisation of those features. A number of the candidate criteria I posited, however, do require fairly detailed analyses, and thus are contingent on assessment being based on the review of recorded data. If such a review is not already done, then including those criteria into assessment practice would require significant alterations to pre-existing routines. The analytic requirements set by candidate criterial features can be scaled from minor to extensive, as illustrated in Figure 18 below.

Candidate Criterial Feature | **Analytic Requirements**

(frequency of) occurrence of unsuccessful repair — minor

self-repair via language alternation/ad-hoc transl.

(manner of) utilisation of co-participant talk

clear displays of orientation towards preference for SIR

on-line assessment: feasible
- availability of recordings/option of repeat viewings of learner performances: bonus
- inclusion into existing assessment routines possible

(frequency of) occurrence of bricolage

orientation to language alternation/ad-hoc transl. as (non-) permissible self-repair practices

on-line assessment: possible
- but: availability of recordings/option of repeat viewings of learner performances: highly recommendable
- inclusion into existing routines: challenging

observable repair-related uses of the L1

speed and manner of resolution of bricolage

(apparent) root cause of lack of success

diversity of bodily-verbal resources employed for searching

(frequency of) occurrence of optimising searches — extensive

on-line assessment: not possible
- detailed analyses of learner performances needed
- availability of recordings and option of repeat viewings of learner performances: essential
- practitioners: faced with clearly increased analytic load
- adaptation of assessment routines required

Figure 18. Analytic requirements

To ascertain the relative practicality of the candidate criterial features I suggested, at least one more aspect can be considered: The criteria can be seen to differ in terms of the amount of data required for a reliable assessment. In other words, there are differences in terms of how much talk a learner would need to produce in order for a particular feature to be includable in assessment. This is the focus of the next section.

6.2.3 Data Requirements

For all candidate criterial features proposed, a robust review of a learner's performance would require, at minimum, that the testee produces their own utterances in full. Thus, learners should be provided with only as much scripting as is needed for them to be able to accomplish the interaction at hand. As I have shown throughout my analyses, tasks that only ask learners to complete provided structures and scripts severely delimit which repair phenomena may be expected to occur within learner talk, and thus restrict the amount of criteria available for ascertaining L2 repair skills.

The criterial features proposed may differ in terms of the amount of talk learners would need to produce to allow a reliable analysis. Extended learner talk of at least several minutes in length may be needed to ensure that a given feature can be included in assessment. Such is the case for any criterion that requires the occurrence of phenomena that may be fairly rare in learners' talk. In my data, for instance, OIR occurred only rarely (though this may not necessarily be reflective of learner talk in general, as I discussed in section 5.1). Since instances of OIR need to occur so that it can be ascertained whether a learner displays orientation to the dispreferred nature of OIR, an inclusion of this particular candidate criterial feature only would be feasible if the test task can be expected to make testees produce fairly extended talk comprised of multiple utterances by each participant. The same applies for other features as well, such as the occurrence of optimising searches. The phenomenon is not overly frequent in my data, and especially at lower levels may be assumed to be the exception rather than the norm. If only a short exchange is produced, it would be hard to argue that the non-occurrence of this phenomenon is due to limited L2 repair skills, rather than the lack of opportunity to display the skill.

For other candidate criteria, such extended talk may not be obligatory as such, but still recommendable, as it would make it more likely for an analysis of the data to yield a comprehensive picture of the criterion at hand. As regards the utilisation of, and orientation to, L1-based self-repair practices, for instance, even shorter interactions are likely to provide learners with ample opportunity to encounter some problem with finding a next-due item or unit, each instance of which being a case in which they could draw on their L1 to resolve the issue, and indicate their stance toward the practice utilised. To the same end, learners might draw on their co-participants' talk, meaning that given the same amount of data, this criterion could also be included in the assessment process. Still, to review learner performances in terms of these criteria, it remains strongly recommended to ensure that learners produce at least a few minutes' worth of talk. For other candidate criterial features, however, less data may suffice. Bricolage, for instance, occurs frequently enough (at least at certain levels) that insight into L2 repair skills may be provided not only by (the frequency of) its occurrence, but also by how it is resolved. Consequently, not much data is needed at all to gain reliable insight into those features of repair work – a handful of turns likely would suffice, even less if multi-unit turns are recurrently produced. One candidate criterial feature which, arguably, sets the lowest demands with regard to data is the diversity of the bodily-visual

resources used for searching. With searches being a highly prevalent SIR practice throughout my data, even very short stretches of talk likely would allow at least an overview of the design cues a learner draws on.

Notably, the latter candidate criterial feature also can be included into assessment regardless of the test task, while the usability of other features may be contingent on task design. To be able to investigate for which repair tasks a learner draws on their L1, for instance, the assignment would need to be designed in a way that encourages the regular occurrence of repair types other than SISR. Similarly, the (apparent) root cause underlying repair failure can only be validly included as a criterion for assessment if the test task ensures regular relevance of contextual limitations, for instance by requiring learners to talk about delicate matters.

Overall, the data requirements of a given candidate criterial feature can be ascertained on the basis of two aspects: a) The amount of data needed to ensure that learners' performances can be validly reviewed with regard to this criterion, and b) whether tasks must be specifically chosen and designed to allow for its assessment. Figure 19 shows how the candidate criterial features I proposed can be classified in this regard.

longer/ more extensive interaction necessary \ specific task design requirements	yes	no
yes	- clear displays of orientation towards preference for SIR - observable repair-related uses of the L1 - (apparent) root cause of lack of success	- (frequency of) occurrence of optimising searches
recommendable		- self-repair via language alternation/ad-hoc transl. - orientation to language alternation/ad-hoc transl. as (non-)permissible self-repair practices - (manner of) utilisation of co-participant talk - (frequency of) occurrence of unsuccessful repair
no		- (frequency of) occurrence of bricolage - speed and manner of resolution of bricolage - diversity of bodily-verbal resources employed for searching

Figure 19. Data requirements

6.2.4 Summary

Naturally, other aspects could, and very likely should, be considered when trying to ascertain whether a candidate criterial feature identified through direct investigation of learner talk would be useful or too impractical for assessment. It may be taken into account, for instance, whether the candidate criterion in question would require gradation in order to prove of use. If so, a further point for thought would be whether, and how (easily), such gradation can be accomplished. Based on the considerations discussed in this section, however, I can present a first review of the relative practicality of the candidate criterial features developed in this book (see Figure 20).

candidate criterial feature	knowledge requirements	analytic requirements	data requirements	overall
(manner of) utilisation of co-participant talk	basic	minor	low/medium	few limits on practicality
self-repair via language alternation/ad-hoc transl.	low	minor	low/medium	
clear displays of orientation towards preference for SIR	basic	minor	high	
(frequency of) occurrence of bricolage	medium	medium	low	
orientation to language alternation/ad-hoc transl. as (non-) permissible self-repair practices	medium	medium	low/medium	
(frequency of) occurrence of unsuccessful repair	medium	medium	medium	
speed and manner of resolution of bricolage	medium	extensive	low	
observable repair-related uses of the L1	low	extensive	high	
(frequency of) occurrence of optimising searches	medium/high	extensive	medium	
diversity of bodily-verbal resources employed for searching	extensive	extensive	low	
(apparent) root cause of lack of success	extensive	extensive	high	practicality limited, questionably feasible

Figure 20. Practicality of candidate criterial features suggested: Summary

There are some candidate criterial features that likely would be easy to include into existing assessment procedures. For instance, taking a learner's utilisation of resources

from co-participant talk into consideration, or their employment of L1-based self-repair practices, would not have a significant impact on the effectiveness and feasibility of assessment routines. To a lesser extent, this also applies to a learner's orientation to the dispreferred nature of OIR. All of these criteria rank fairly low regarding all three aspects discussed in this section, though one of them requires the learners to produce fairly extensive interactional data, an issue that may be rather easy to surmount overall.

The other candidate criteria may be ranked according to how much their knowledge, analytic and data requirements are likely to impose on their practicality. For some candidate criterial features, practicality would only be slightly limited (e.g., whether/with which frequency bricolage is used, and in which manner it is resolved; the (frequency of) occurrence of unsuccessful repair). For others, however, it must be carefully considered whether or not the more comprehensive insight into L2 repair skills that may be gained by including them into assessment would justify the additional effort required to do so (see, e.g., (frequency of) occurrence of optimising searches; the diversity of bodily-verbal resources employed for searching).

As my considerations here are entirely theoretical in nature, they ought to be treated with caution. Still, my discussion provides reasons to assume that among the candidate criterial features I identified through my analyses, there are some that, apart from providing useful insight and and thus being eminently sensible to include in the assessment of L2 spoken performances, also prove negligible in terms of additional effort required by practitioners. The (frequency of) occurrence of unsuccessful repair, for instance, provides a very straightforward display of a learner's ability to deal with problems of hearing, speaking and understanding, and is unlikely to limit the effectiveness of assessment procedures overmuch. Of course, it must be ascertained if this supposition (and the others detailed earlier in section 6.2) holds up to practitioners' reality – that is, a field test of these candidate criteria by teachers and/or raters (or a similar next step) needs to be conducted to follow up on this study. In the next chapter, I will – after a summary of my findings – provide a more detailed reflection on room for further research.

7 Summary and Outlook

7.1 Summary of Findings

In this book, I reported on the results of my investigation of the repair conduct displayed by L1 German EFL learners. As posited by CA-informed understandings of speaking competence and IC, and repair skills in particular, learners at all levels do show the ability to deal with problems of hearing, speaking and understanding. However, as the aim of my research was to identify candidate criterial features for the assessment of learner's L2 repair skills, my objective was to ascertain whether there are differences between my learners in terms of their repair work, and, if so, how these differences may express variable degrees of sophistication of L2 repair skills.

One of the main questions guiding my research was which differences between L1 German EFL learners at *different levels* of L2 development can be uncovered by comparing their repair work. To answer that question, I conducted qualitative analyses following CA/IL methodology. I drew on video-recorded learner-learner interaction featuring primary school students, pupils attending 7th and 9th grade at a German secondary school, or university students of English (who, respectively, represent beginner-, intermediary-, and advanced levels of L2 development). Reviewing my collection of 131 cases of repair and carrying out a cross-sectional analysis, I identified a number of ways in which my learner groups differ in terms of their repair conduct. This provided valuable insight into how L2 learners' repair skills may develop over time. Differences tended to emerge most clearly between my advanced-level learners, and those at beginner- and intermediary level. My main observations (visualised in Figure 21 below) can be summarised as follows:

a) At higher-intermediary level, my learners start treating OIR as a dispreferred action, thus clearly displaying orientation to the preference for SIR. In doing so, they begin to distinctly show both an awareness that repair constitutes an interactional accomplishment, and the ability to act in accordance with this – thus, it can be posited that they display more advanced L2 repair skills. Meanwhile, no such changes are apparent with regard to the preference for self- over other-repair: Clear displays of orientation to the dispreferred nature of other-repair are observable from the beginner level onwards.

b) At intermediary level, *bricolage* constitutes a highly frequent repair initiation practice. In contrast, it only very rarely occurs in the advanced-level data. The

(recurrent) occurrence of this practice as such serves to indicate limited L2 interactional skills (including repair skills), showing that a learner's ability to accomplish interactional tasks may be severely inhibited, and that they lack alternative practices to draw on in order to deal with issues of speaking.

c) While at beginner level, *searches* are invariably used to deal with the unavailability of a next-due word (commonly part of the active vocabulary of the session recorded), an additional searchable (i.e., syntactic structure) emerges at intermediary level. Regardless of the searchable, when learners at novice and intermediary level use the practice, this indexes either some sustained gap in linguistic (lexical, grammatical) knowledge or a momentary issue with recovering linguistic resources, both of which prevent the continuation or completion of the ongoing unit. At the advanced level, however, learners often indicate that their searches do not (primarily) serve to ensure that the unit-in-progress can *somehow* continue, but that they are motivated by the aim to find *just the right way* to design their turn. Over time, then, this initiation practice appears to diversify in terms of what learners can use it to accomplish. At higher levels, the learners start using the same practice in an increasingly flexible manner.

d) When designing their searches, advanced-level learners draw on an inventory of bodily-verbal resources which is more diverse than that of the lower-level learners. They are able to use these resources very precisely to indicate search boundaries and locate the searchable. A general tendency towards the development of increasingly diverse inventories of resources may already emerge across lower levels as well: In particular, bodily-visual cues beyond gaze are used more and more frequently at higher learner levels.

e) Learner groups differ in terms of the repair-related tasks for which learners switch to their L1. While only the beginner-level learners shift to their L1 in the context of other-initiation and other-repair, only the intermediary-level learners can be seen to use their first language for SIR purposes. In all those instances, the shift co-occurs with a boundary within the repair activity. Additionally, learners of both levels alternate to the L1 in order to produce a next-due item or unit. This use of the phenomenon is the only one observable in my advanced-level learners' data as well. The latter learners' more sophisticated L2 repair skills may be displayed by their lack of need to draw on their L1 for anything but self-repair purposes.

f) To deal with the unavailability of a next-due item or unit, an additional L1-based repair practice emerges at intermediary level: Ad-hoc translations. Rather than straightforwardly shifting to their L1, learners continue using English as the medium of interaction, but the talk they end up producing closely resembles German syntactic and/or lexical designs, and thus can be posited to result from an attempt at carrying out a verbatim translation from German into English. This is a very straightforward example of the "diversification of practices" that has been noted to be characteristic for, and indicative of, the development of L2 interactional skills (e.g. Pekarek Doehler & Berger 2019: 52).

g) Starting at intermediary level, learners orient to shifting from L2 into L1 as an illegitimate practice for dealing with the unavailability of something due next, and invest significant effort to alleviate, or account for, its use. Ad-hoc translations only receive a similar treatment in the advanced-level data, as the intermediary-level learners orient to the practice as a fully legitimate way of resolving the trouble at hand. It may well be that these divergences in treatment show which practices learners at a particular level typically orient to as part of their repair repertoire. In that case, higher-level learners would display increasingly sophisticated L2 repair skills through showing that they are aware of, and thus have available for use, successively more self-repair practices. From that perspective, my data shows that at higher levels, the learners themselves may start recognising a diversification of methods as posited in the literature (ibid.).

h) Cases of unsuccessful repair cluster in the (lower-) intermediary learners' data. The advanced-level learners' more advanced L2 repair skills further are visible in the following contrast: While the lower-level learners' lack of success generally can be attributed to their (temporary or sustained) lack of linguistic means, what few cases of unsuccessful repair there are at the advanced level may well be due to the context overly limiting the resources available for completing or continuing an ongoing unit.

i) Intermediary-level learners tend to explicitly mark the abandonment of repair attempts, either through an L1(-based) abandonment token or a code-switch to German followed by its problematisation.

j) At both the beginner and intermediary levels, learners can be seen to utilise supplementary material to resolve trouble in speaking. The advanced-level learners, however, overwhelmingly are able to resolve their problems (of

speaking) by drawing on the L2 means already available to them, and thus show higher-level L2 repair skills.

		beginner	intermediary	advanced
a) orientation to repair preferences	orientation to other-repair as dispreferred option			
	orientation to OIR as dispreferred option			no instances of OIR
b) searches and bricolage	(frequency of) occurrence of bricolage	no instances		
	grammatical units searched for (in addition to lexical items)			
	done to ensure unit completion / done to optimise turn design			
	diversification of search design			
c) L1-based repair practices	use of language alternation throughout repair process	for OIR and other-repair	for SIR and self-repair	for self-repair
	use of ad-hoc translations			
	treatment of LA as problematic / treatment of AHT as problematic			
d) unsuccessful & assisted repair	occurrence of unsuccessful repair	rare	frequent	rare
	… due to lack of linguistic means / … due to contextual limitations			
	drawing on supplementary material or co-participant talk	frequent utilisation of supplementary material	use of co-participant's talk & suppl. material	nearly unattested

Figure 21. Summary of findings: Repair conduct across learner levels

Through my analyses, I have thus been able to show that learners at more advanced levels indeed can be seen to display increasingly sophisticated L2 repair skills in a number of ways. Most straightforwardly, my advanced learners are very likely to successfully resolve trouble: Even the instances in which they are not able to produce a repair solution can be attributed to restrictions imposed on eligible turn-design resources by the context, and therefore do not indicate (significant) limitations on L2 repair ability. They also generally do not require assistance to accomplish repair, and rarely draw on their L1 to that end, underlining that at (more) advanced levels, learners have access to a sufficiently broad array of methods for dealing with interactional trouble through the L2 means available to them. As has been indicated in prior research (e.g. Pekarek Doehler & Pochon-Berger 2019), the degree of sophistication of an L2 interactional skill expresses itself, for instance, in the diversity of methods available to

learners for dealing with a particular interactional task (i.e., in the breadth of methods that can be utilised, and the ability to make deliberate interactional choices). At more advanced levels, my learners clearly do show increasing diversification of their repertoire of repair methods – the advanced-level learners, for instance, orient to the broadest range of practices as available repair options, they can design their searches most variably and deliberately, and they can employ the practices available to them most flexibly. That bricolage starts falling out of use at advanced level further points to an increase in the ability to deal with trouble: Sparsity of bricolage indicates both that there is little risk a learner may be unable to resolve local issues because their interactional means are overly limited, and that they are able to use other repair initiation practices. It also serves as one piece of evidence that the more advanced a learner is, the smaller the range of issues that necessitate remarkable halts in progressivity becomes – in other words, at higher levels, learners increasingly become able to deal with trouble of speaking in passing. Quite interesting, in that regard, is that when advanced-level learners do produce a remarkable halt, they often do so to index an attempt at finding a 'mot juste' – at advanced level, then, learners are least likely to face issues of finding *a* way to continue their talk.

In sum, these features do not simply occur within the higher-level learners' data, but they clearly index highly sophisticated L2 repair skills. All the aspects which I have discussed above can be connected to (restrictions on) the ability to successfully deal with problems of speaking, hearing and understanding. This indicates that the candidate criterial features I derived from these observations (see below) may be useful for the assessment of L2 repair skills, and can at the least be considered general markers for that interactional skill.

Of course, differences which are revealed through a comparison of learners at various levels of L2 development do not necessarily (fully) overlap with features distinguishing between learners belonging to one cohort. Consequently, candidate criterial features that are based in cross-sectional analyses may be useful for standardised language testing, but insufficient, or even unusable, for the formative and summative assessment of L2 repair skills in a classroom setting. In addition to the aforementioned cross-sectional analysis, I therefore also conducted a focused comparison of the cases produced by my 7th-graders.

Indeed, the 7th-graders' repair conduct is by no means homogenous and invariable. I was able to identify several ways in which these learners can be seen to differ from

each other. These further findings are listed here, and also summarised in Figure 22 below.

k) Although all members of the cohort produce cases of bricolage, there are notable differences between the learners both in terms of how many cases they produce, and with regard to how (quickly) they manage to resolve the trouble necessitating the use of the practice. While there is a learner (Tim) who exclusively relies on this initiation practice, all others utilise it significantly less often. This correlates with qualitative differences between their cases of bricolage. Not only does Tim frequently require a significant amount of time to resolve the issue at hand (if he is able to do so at all), he also often is unable to do so in one go and in an L2-like way. In contrast, Leo and Gunnar, who use this practice least often, resume talk rather quickly, and commonly are able to produce their (fairly L2-like) TCUs fluently once they are launched. It is Tim, therefore, who shows his relatively less sophisticated L2 repair skills through not only the quantity of instances of bricolage he produces, but also his reduced ability to resolve problems of speaking quickly, fully, and in an L2-like way.

l) While no optimising searches occur at intermediary level, Gunnar can be seen to perform optimising repair. Thus, he may be providing first indication of his L2 repair skills approaching these of (more) advanced-level learners.

m) When designing their searches, some of the intermediary learners (Maik and Leo) employ both bodily-visual cues beyond gaze, and additional verbal means beyond the basic design, while the others do neither. Although they do not exhibit the ability to use these resources precisely, like the advanced-level learners do, Maik and Leo display the potential to diversify their search designs, and thus arguably somewhat more sophisticated L2 repair skills than their peers.

n) Of all the 7th-graders, it is only Tim who does not a) orient to shifts from L2 into L1 as an inapposite practice for dealing with the unavailability of something due next or b) utilise ad-hoc translations. He therefore clearly has access to a less diverse inventory of self-repair practices than his peers. Notably, Leo and Gunnar do not draw on language alternation from L2 to L1 to deal with unavailable lexis or units, indicating that they are increasingly able to deal with such trouble via their L2 inventory of linguistic means.

o) Cases of unsuccessful repair are not evenly distributed across the learners of the cohort either. Rather, they are most frequent in the talk of one pair, Tim

and Arne, while Leo and Gunnar produce no instances of unsuccessful repair at all. In addition to frequently being unable to resolve trouble (of speaking) at all, Tim is very likely to only succeed via assisted repair. Recurrently, he can be seen to extensively draw on his partner's prior talk to be able to produce a next-due unit of talk, ending up copying TCUs produced by Arne (nearly) in full. In the rare case that his classmates (Maik and Gunnar) employ such a strategy, they borrow one lexical item from their partner to fill a single syntactic slot. Tim also often needs to rely on the mutual availability of information provided by supplementary material as a meaning-making resource when producing his utterances, which otherwise would likely constitute a threat to intersubjectivity.

		Tim	Arne	Maik	Leo	Gunnar
a) searches and bricolage	(frequency of) occurrence of bricolage	▮ (tall)	▬	▬	▭	▭
	bricolage results in…	extensive halts			fairly brief halts	
	bricolage generally resolved upon TCU launch	no			yes, fully	
	repair result generally is…	non-L2-like			rather L2-like	
	display of potential to diversify search design			▬▬▬		
b) L1-based repair practices	use of language alternation for self-repair	▬▬▬				
	treatment of L1 use as problematic		▬▬▬▬▬			
	use of ad-hoc translations for self-repair		▬▬▬▬▬			
c) unsuccessful & assisted repair	occurrence of unsuccessful repair	▬	▬	▭		
	use of supplementary material or co-participant talk	highly dependent		may fill synt. slot (single item)		may fill synt. slot (single item)
d) others	optimising repair occurs					▭

Figure 22. Summary of findings: The 7th-graders' repair conduct

It is clear that the differences between the 7th-graders revealed by my focused analyses do not merely offer random insight into the possible diversity of repair conduct. Rather, the learners can be methodically differentiated through their repair work – they systematically display relatively more or less sophisticated L2 repair skills than their peers. Tim, for instance, is the 7th-grader who most extensively relies on bricolage for self-initiation of repair, a practice which for him usually occasions lengthy halts in progressivity resolved with talk that recurrently is not L2-like. He also is very likely to not be able to successfully accomplish repair on his own, if at all. In addition to these very straightforward indications that his L2 repair skills are not very sophisticated yet, his inventory of repair practices also is limited: He does not utilise ad-hoc translations at all, and while he may employ language alternation to deal with the unavailability of a next-due item or unit, he does not in any way treat this as problematic and thus provides no explicit evidence that he is aware that it constitutes a practice for self-repair.

Gunnar and Leo differ from Tim in (almost) every way. They only use bricolage very rarely, and when they do, they are able to quickly resolve their trouble in full, and to produce largely L2-like talk. They do not produce any cases of unsuccessful repair. Although Gunnar does, on one occasion, borrow a lexical item from his co-participant's talk, his need for assistance is very minor. Leo does not show such a need at all, and neither of them utilises supplementary material. Both learners draw on ad-hoc translations to deal with trouble of speaking, thus displaying access to a fairly diverse inventory of repair practices. They do not use language alternation to deal with the unavailability of something due next, which itself may show an increased ability to deal with trouble by exclusively utilising L2 resources.

These observations fit with patterns that emerge from cross-referencing the results of the two analyses. In a number of ways, Tim's repair work much more clearly resembles that observable in the beginner-level learners' data than that of his classmates: He does not employ ad-hoc translations, he does not display awareness that language alternation is a practice available for self-repair, and he shows significant reliance on supplementary material to achieve repair success. On the other hand, both Leo and Gunnar start approaching advanced-level repair conduct, although in different ways. Gunnar's data includes a case of what might be called 'optimising repair', in reference to the optimising searches I have identified as specific to the advanced-level learners. Leo, on the other hand, starts displaying the potential to diversify his search designs,

and may even start orienting to ad-hoc translations as a not-quite-fully permissible repair practice, thus displaying evidence that he may become aware of this practice as part of his inventory of self-repair practices.

These correlative tendencies connecting the results of the cross-sectional and the focused analyses suggest that there is no need after all to propose (partly) distinct sets of candidate criterial features for the assessment of L2 repair skills in different settings (i.e., standardised language testing vs assessment in a classroom setting). I propose a general developmental gradient ranging from basic to advanced L2 repair skills, with the beginner-level learners' repair work commonly being characterised by features displaying low-level abilities, and the advanced learners consistently showcasing very sophisticated skills. Further, I claim that the members of my 7th-grader cohort similarly index L2 repair skills going from fairly basic to relatively advanced – and hence, that they cover a section of that general gradient. Any of the features my analyses have shown to allow for the differentiation between learners therefore provide insight not only into the relative sophistication of the L2 repair skills exhibited by (groups of) learners, but actually permit the placement of a learner on a scale from basic to advanced L2 repair skills. Thus, future research or practice may show that any learner's L2 repair skills can be usefully assessed (regardless of the context of assessment) by taking the following candidate criterial features into consideration:

1. Clear displays of orientation towards the preference for SIR over OIR;
2. The (frequency of) occurrence of bricolage as an SIR practice;
3. The speed with which a learner resolves the problem necessitating bricolage, and the manner in which they do so;
4. The (frequency of) occurrence of optimising searches;
5. The diversity of bodily-verbal resources used for searching, and the extent to which they are used to precisely locate the search(able);
6. The repair-related uses of the L1 observable in a learner's talk;
7. The utilisation of language alternation to L1 as a practice for dealing with the unavailability of a next-due item or unit;
8. The orientation to language alternation to L1 as a (non-) permissible practice for dealing with the unavailability of a next-due item or unit;
9. The utilisation of ad-hoc translations as a practice for self-repair;
10. The orientation to ad-hoc translations as a (non-) permissible practice for dealing with the unavailability of a next-due item or unit;

11. The (frequency of) occurrence of unsuccessful repair;

12. The (apparent) root cause behind failed repair;

13. The (manner and extent of) utilisation of resources from co-participants' talk to resolve trouble of speaking;

14. The occurrence of displays of dependency on supplementary material to resolve trouble of speaking.

When considering possible criteria to include into an assessment scale, it therefore needs to be recognised that the method underlying the identification of candidate criterial features may imply unnecessarily restricted meaningfulness and usability of those criteria. The differentiation of learners into variable groups according to the amount of EFL instruction they have received (and, on that basis, the level of L2 development they generally are assumed to be at) must be recognised as a methodological tool, and restricted to that function. This approach is very useful to gain a first understanding of which 'markers' may generally be viable for ascertaining learners' L2 repair skills, but such artificially imposed boundaries may restrict insight into the actual development of those skills. My findings show that learners of a particular group cannot simply be expected to do repair in the same, or similar, way(s), and thus to occupy a level of sophistication of L2 repair skills that is neatly separable from that of other learner groups. Thus, it would be a mistake to assume a priori that criteria derived from cross-sectional analyses would be irrelevant for an assessment scale meant to be used for a cohort of learners at (presumably) the same level (and vice versa). A rather more sensible approach would be to foster an understanding of as many criterial features as possible, and, with a particular group of learners and assessment context in mind, choose the ones that are most suitable and practical for that specific background.

Overall, I can state that my study allowed me to propose a range of candidate criterial features, confirming that testables (and thus, teachables) related to repair as an L2 interactional skill can be directly identified through CA-based analyses of learner data. My research thus supports previous attempts (e.g. Ikeda 2017; Walters 2021; Youn 2013) to propose an alternative to the currently predominant approaches to performance-based scale development (i.e., relying on rater reports on learner performances). It also contributes to the operationalisation of the notion of L2 repair skills, though of course the findings need to be consolidated through further research. Beyond this, my work leaves behind a number of open issues, one of which is the practical applicability of the candidate criterial features I identified. I will turn to both these

matters in my upcoming reflections on the limitations of this study, and my suggestions for further research.

7.2 Suggestions for Further Research

In the course of this book, I have already made mention of some of the circumstances surrounding my research which had considerable effects on its methodology. Most significantly, the consequences of the COVID-19 pandemic prevented me from collecting my own data, and required me to rely on existing corpora and collections of L1 German EFL learner talk. Unsurprisingly, then, the first main recommendations I would like to make for future studies pursuing a similar objective as mine relate to the data basis.

1. Analyses should draw on data that is comparable in terms of scriptedness of utterances

Of particular concern for my analyses are the significant differences between the novice-level learners' data and the rest of my data. What proved to be especially problematic for my research in that regard were the differences between the learner groups in terms of the tasks they engaged in while being recorded. I have discussed, variously and in some detail (see, e.g., section 5.1.2.2), that recurrently, the presence or absence of certain phenomena, practices, and features of repair conduct in the beginner-level learners' talk can (at least in part) be attributed to the fact that they largely deal with very scripted activities, which often require them to simply complete utterances by filling in single words, or phrases. Consequently, their tasks do not generally occasion a need for OIR, or for repair practices that serve to deal with the unavailability of syntactic knowledge or with problems in producing full units of interaction. For these aspects, the novice learners' repair work could not significantly contribute to the identification of differentiating patterns. Comparisons between my learner groups in terms of frequency generally must be treated with suitable caution, although the tendencies emerging from cross-referencing the results of the focused analysis of my 7th-graders' data with those of the cross-sectional analysis help mitigate the differences in data. Tim's repair work in particular offers promising insight here: As I have noted, Tim mirrors the novice-level learners' repair conduct in a number of ways. If this is a general tendency, findings on how he differs from the others in his cohort would reflect overall contrasts between the beginner- and the intermediary-level learners. Since Tim

engaged in the same task as all the 7th-graders, his repair work can be compared both qualitatively and quantitatively to that of his classmates. This observation notwithstanding, future research on L2 repair skill markers should ideally be based on data that requires all learners to independently produce full utterances (i.e., the tasks posed to learners should be designed to include as little scripting as possible).

In the context of data comparability, it is worth revisiting a point I made when discussing my 'Data and Methods' (Chapter 4). I mentioned that only the novice-level learners' interaction is 'naturally occurring' in the traditional CA understanding. My intermediary- and advanced-level learners, on the other hand, all engaged in talk that was elicited for research purposes. For my research objective – investigating learners' repair conduct in order to identify L2 repair skill markers – I considered this kind of data acceptable (for further detail, see section 4.1). In fact, while my non-beginner learners may work on the maintenance of intersubjectivity in different ways, and/or to a different extent, than they would in fully authentic interactional situations, such is most likely true for any test-like setting as well. Thus, the results of my study actually provide enlightening insight into the repair work expectable in the context of speaking tests, and therefore into the kinds of criteria useful for assessing learners undergoing such examination.

2. Analyses should draw on a larger collection of cases

Owing to its nature as a pilot study, my research is based on a limited number of instances of repair. While this allowed for insightful qualitative investigation, it also resulted in some phenomena, practices and features occurring only sparsely, in particular when focusing on specific learner groups. Thus, the results of this study should be tested against a larger collection, and be supplemented with quantitative analyses.

3. Analyses should draw on data that is produced by a larger number of learners

Beyond the type of data, it is also recommendable that future research be based on data from a larger number of individual learners. Excepting the novice learners' data, my findings are based on a review of the repair work of only a few learners. My observations would therefore best be revisited with data from additional intermediary- and advanced-level learners.

4. Analyses should depart from a more comprehensively compiled collection of cases

Some of the other methodological choices that I made also should be revisited in future research. For instance, having excluded cases of repair that, while clearly recognisable as such, did not feature remarkable halts in progressivity as I defined them (i.e., prolonged speech perturbations, see section 4.2.1), my collection was predisposed in favour of repair instances featuring searches and bricolage. Future research on this topic therefore should ascertain that other repair phenomena could, in principle, be equally represented in the data.

Furthermore, it bears mention that as I encountered learners whose data contains fewer immediately apparent instances of remarkable halts in progressivity, I saw cause to refine my inclusion criteria by specifying out more closely the minimal requirements for something to be considered a 'remarkable halt', so as to ensure that I would have at least a number of cases to work with for each individual learner. Consequently, the intermediary-level collection in particular also includes several cases that, while fulfilling the inclusion criteria, approach non-remarkable halts and thus constitute less prototypical instances of my target phenomenon. In future studies, cases should be compiled in a more comprehensive fashion, in order to include such subtler instances of repair in each learner's collection. If the aim is to include a specific, comparable amount of cases for all learners whose data is reviewed for the study, it would be recommendable to collect cases fulfilling the inclusion criteria in their order of occurrence, regardless of how prominently the criteria are fulfilled. Still, some learners may simply not produce the sought-for amount of instances fitting the inclusion criteria. This, of course, does impact analyses, and may in particular impede quantitative comparison, but even with such limits to the available data, qualitative analyses are likely to provide important insight, as I have shown in my study (see also Couper-Kuhlen & Selting 2018: 20). Acknowledging that research such as this is to be based on a granular qualitative approach, any observations gained through limited data should, in a next step, be revisited, with a larger, balanced corpus.

In a similar vein, in future research it may prove beneficial to revisit the operationalisation of some of the phenomena I focused on in my study. To ascertain that all relevant cases are included in the analysis, it may, for instance, be pertinent to revisit the boundary between 'successful' and 'unsuccessful' repair.

5. Analyses based on data of non-L1 German learners should be conducted

In section 1.2, I noted that the development of L2 interactional skills may well be affected by the learners' language background. For reasons of practicality, in this study I focused on the repair conduct of L1 German EFL learners. However, while such learners inarguably make up a substantial group of pupils attending schools in Germany (and other German-speaking countries), there also are many students whose L1 is not German. At the very least, then, future research will be needed to ascertain in how far the candidate criterial features I have identified are suitable for the assessment of these learners' L2 repair skills as well.

6. Additional aspects of learners' repair work could be considered

Beyond the need for further research generated by methodological aspects, there also is plenty of room for future investigation due to the sheer impossibility of examining all aspects of my topic within one single study. For instance, comparing cases of 'repair simpliciter' (Kendrick 2015: 181) with instances in which learners arguably conduct repair as a vehicle for, or in conjunction with, another action may provide for further interesting insight into learners' repair work. This, in turn, may reveal additional candidate criterial features. Similarly, my data recommends an exploration of whether, and how, learners distinguish self- from other-directed searches (e.g. Kley et al. 2021: 169), and (self-initiated) other-repair instantiated by a clear request for assistance from that which is proffered without invitation.

Also, a closer look at the common design features learners draw on to initiate repair and operate on trouble sources may be worthwhile. For one, the learners in my data very clearly produce hesitation markers with a variety of vowel qualities, but it is yet to be investigated if learners at higher levels might come to more closely approximate L2-like designs. The use of discourse markers may also be worthy of further investigation, particularly so whether the learner utilises L1 or L2 discourse markers, and where these markers may occur throughout the repair process. Furthermore, as I noted in section 7.1, my learner groups notably differ with regard to whether the abandonment of repair attempts is explicitly marked. Future research will show whether this difference could be indicative of L2 repair skills, or general L2 IC.

As has been observed in previous research, L1 and L2 learners differ in terms of how they other-initiate repair (Lilja 2014: 101-102). Assuming that additional data would yield more instances of OIR, a closer investigation of other-initiation practices

employed by learners of different levels may also prove fruitful. Furthermore, while reviewing whether and how learners distinguish between self- and other-directed searches, it would be illuminating to also consider learners' 'recruitability' for self-initiated other-repair. That is, L2 repair skill markers may be revealed by investigating learners' orientation to, and thus observable recognition of, attempted recruitment (Kendrick & Drew 2016), and their ability to provide the assistance requested.

7. The practicality of the suggested candidate criterial features should be ascertained

To conclude, I return to the candidate criterial features I posited, and to what further research may be pertinent, or necessary, to ascertain their usability as criteria for the assessment of L1 German EFL learners' L2 repair skills. In this study, I approached the matter of identifying candidate criterial features in a purely descriptive manner, by determining ways in which learners differ regarding their repair work. On that basis, I proposed a number of candidate criteria, but further research still needs to systematically review them in terms of their appropriateness and usefulness for assessment.

In Chapter 6, I provided my first thoughts regarding these candidate criterial features' practicality for assessment. Now, I turn to some general concerns to be taken into consideration. For one, I mentioned that some of the candidate criterial features I proposed may prove problematic in practice since they base ascription of L2 repair skills on the (non-)occurrence of a given practice or feature of behaviour. If a phenomenon is common, or at least has the potential to occur frequently in talk (i.e., if there are few contextual preconditions that have to be met for its occurrence), including its very appearance into assessment is quite feasible and largely without issue. However, when its occurrence is highly restricted from the outset, the appearance of a phenomenon would need to be facilitated by the test task a learner performs to ensure that meaningful conclusions can be drawn from its (lack of) occurrence. Even then, it may be unclear if the non-utilisation of a practice or non-occurrence of a phenomenon results from a lack of opportunity to use it, or from more or less sophisticated L2 repair skills. It must be questioned in how far candidate criterial features affected by this issue (e.g., the (apparent) root cause behind failed repair) are critical for ascertaining a learner's position on the gradient from basic to advanced L2 repair skills (see section 6.2.2 for similar considerations). Further research will need to establish to what extent each of the candidate criterial features I proposed is informative regarding the level a learner's L2 repair skills have reached. On that basis, it should be ascertained whether

a distinction can be made between primary criteria – those practices that a learner needs to (not) be seen to utilise recurrently, or features of behaviour that a learner must (not) display to a certain extent, to be considered to have highly sophisticated L2 repair skills – and secondary criteria, which may provide additional support for an evaluation, but do not (significantly) impact grading.

In a similar vein, my data suggests that some features systematically correlate with each other, and therefore may be mutually implicative. There appears to be a connection, for instance, between the frequency with which my 7th-graders use bricolage, and whether or not they are able to quickly resolve that trouble in full, and to produce largely L2-like talk. As Roever & Dai (2021) indicate, when identifying criteria for assessment it is important to focus on those that allow for the most thorough review of a given construct, while at the same time ensuring relative efficiency of the evaluation process (:35). Consequently, going forward it is important to establish which of the candidate criterial features I proposed may be combined with each other to "cover greater … variance" (ibid.), and which combinations would unnecessarily reduce efficiency of the assessment process due to the inclusion of superfluous features.

An additional issue that recurrently is mentioned in research on L2 IC assessment remains unresolved, and thus ought to be mentioned here as well. As previous literature has pointed out, the occurrence of a particular repair feature, practice or pattern in learner talk often may relate to that learner's language proficiency (e.g. Gardner 2007; Koshik & Seo 2012; Lee & Hellermann 2014). It is argued that these phenomena directly reflect which (linguistic) resources have not yet been (fully) acquired by the learner. This being the case, Roever & Dai (2021) validly note that "the issue of differentiating between IC and speaking, or proficiency in general, quickly becomes a chicken-and-egg question" (:32). They therefore argue that it cannot simply be assumed that including criteria such as the ones I identified into assessment adds to the validity of rating processes (ibid.: 33). Given that repair skills refer to the ability to deal with problems of hearing, speaking and understanding, and in learner talk these problems are often occasioned by lack of linguistic proficiency, this matter appears to be highly relevant for my candidate criterial features. Although I have argued that the candidate criterial features I proposed are all derived from differences between learners which can be considered to reflect more or less sophisticated L2 repair skills, the question of whether they would "add variance to … existing speaking tests" (ibid.) should be revisited in the future.

Finally, I want to note the analytic requirements for including my candidate criterial features into assessment routines. Quite often, properly reviewing learner performances with regard to a certain feature would require at least some familiarity with CA research, and its methodological principles (see section 6.2.1). Otherwise, criteria like the '(frequency of) occurrence of unsuccessful repair' may be misinterpreted, and others could be entirely inaccessible for practitioners. Changes to teacher training programs, as are attempted not only through the project my research is part of, may perspectively foster the usability of rubrics including candidate criteria such as the ones I proposed, as well as promote changes to language teaching in general so as to help learners acquire L2 IC. We, as researchers in the field, should find ways to make assessment instruments based on research such as mine accessible to current practitioners, to provide them with the skills necessary to utilise such rubrics, and to ensure that overall, the efficiency of existing assessment routines is not (overly) compromised.

The insights necessary to resolve these open issues, in particular those regarding the practicality of the candidate criterial features posited, may be gained in the context of a project in which these features are applied to additional learner data. Ideally, participants would be learners at different stages of language acquisition, who would be set comparable tasks requiring them to engage in (mostly) unscripted, independent talk.

Nevertheless, my research provides important first insight into a possible operationalisation of L2 repair skills as a construct for assessment. Those features that I have posited may well be sufficient for a first draft of an assessment scale, given that any scale can only ever cover a (representative) part of a construct. Provided that future research will support my findings, the aforementioned project testing this candidate scale would be the next-due step within the larger project that this study is a part of.

In any case, to my knowledge, this study presents one of the first attempts to identify candidate criterial features for the assessment of L2 learners' repair skills on the basis of a conversation-analytic investigation of learner performances. As such, I hope to have shown that this procedure is feasible, and presents a valid alternative to currently prevalent approaches to (performance-based) scale development and design. A direct qualitative analysis of learner data is just as likely to reveal meaningful L2 repair skill markers as an analysis of such data mediated by raters and other teaching professionals. Moreover, its big advantage is that it is far less likely to perpetuate preconceived notions of what constitute (advanced) L2 repair skills.

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Appendix

Appendix A: Summary of the Most Important GAT 2 Transcription Conventions

Source: Couper-Kuhlen & Barth-Weingarten (2011: 37-39)

Minimal transcript

<u>Sequential structure</u>

`[    ]` `[    ]`	overlap and simultaneous talk

<u>In- and outbreaths</u>

`°h / h°`	in- / outbreaths of appr. 0.2-0.5 sec. duration
`°hh / hh°`	in- / outbreaths of appr. 0.5-0.8 sec. duration
`°hhh / hhh°`	in- / outbreaths of appr. 0.8-1.0 sec. duration

<u>Pauses</u>

`(.)`	micro pause, estimated, up to 0.2 sec. duration appr.
`(-)`	short estimated pause of appr. 0.2-0.5 sec. duration
`(--)`	intermediary estimated pause of appr. 0.5-0.8 sec. duration
`(---)`	longer estimated pause of appr. 0.8-1.0 sec. duration
`(0.5)/(2.0)`	measured pause of appr. 0.5 / 2.0 sec. duration (to tenth of a second)

<u>Other segmental conventions</u>

`and_uh`	cliticizations within units
`uh, uhm, etc.`	hesitation markers, so-called "filled pauses"

<u>Laughter and crying</u>

`haha`
`hehe`
`hihi`
	syllabic laughter

`((laughs))` `((cries))`	description of laughter and crying
`<<laughing>      >`	laughter particles accompanying speech with indication of scope
`<<:-)> so>`	smile voice

<u>Continuers</u>

`hm, yes, no, yeah`	monosyllabic tokens
`hm_hm, ye_es,` `no_o`	bi-syllabic tokens
`ˀhmˀhm`	with glottal closure, often negating

`((coughs))`	non-verbal vocal actions and events
`<<coughing>      >`	...with indication of scope
`(        )`	unintelligible passage
`(xxx), (xxx xxx)`	one or two unintelligible syllables
`(may i)`	assumed wording
`(may i say/let us say)`	possible alternatives
`((unintelligible,`	unintelligible passage with indication of
`     appr. 3 sec))`	duration
`((...))`	omission in transcript
$\rightarrow$	refers to a line of transcript relevant in the argument

Basic transcript

Sequential structure

=	fast, immediate continuation with a new turn or segment (latching)

Other segmental conventions

:	lengthening, by about 0.2-0.5 sec.
::	lengthening, by about 0.5-0.8 sec.
:::	lengthening, by about 0.8-1.0 sec.
ˀ	cut-off by glottal closure

Accentuation

`SYLlable`	focus accent
`!SYL!lable`	extra strong accent

Final pitch movements of intonation phrases

?	rising to high
,	rising to mid
–	level
;	falling to mid
.	falling to low

Other conventions

`<<surprised>      >`	interpretive comment with indication of scope

Fine Transcript

<u>Accentuation</u>

`SYLlable`	focus accent
`sYllable`	secondary accent
`!SYL!lable`	extra strong accent

<u>Pitch jumps</u>

↑	smaller pitch upstep
↓	smaller pitch downstep
↑↑	larger pitch upstep
↓↓	larger pitch downstep

<u>Changes in pitch register</u>

`<<l>`	>	lower pitch register
`<<h>`	>	higher pitch register

<u>Intralinear notation of accent pitch movements</u>

`` `SO ``	falling
`´SO`	rising
`ˉSO`	level
`^SO`	rising-falling
`ˇSO`	falling-rising
↑`	small pitch upstep to the peak of the accented syllable
↓´	small pitch downstep to the valley of the accented syllable
↑ˉSO bzw. ↓ˉSO	pitch jumps to higher or lower level accented syllables
↑↑`SO bzw. ↓↓´SO	larger pitch upsteps or downsteps to the peak or valley of the accented syllable

<u>Loudness und tempo changes, with scope</u>

`<<f>`	>	forte, loud
`<<ff>`	>	fortissimo, very loud
`<<p>`	>	piano, soft
`<<pp>`	>	pianissimo, very soft
`<<all>`	>	allegro, fast
`<<len>`	>	lento, slow
`<<cresc>`	>	crescendo, increasingly louder
`<<dim>`	>	diminuendo, increasingly softer
`<<acc>`	>	accelerando, increasingly faster
`<<rall>`	>	rallentando, increasingly slower

<u>Changes in voice quality and articulation, with scope</u>

`<<creaky>`	>	glottalized
`<<whispery>`	>	change in voice quality as stated

302

Appendix B: Multimodal Transcription Conventions

Source: Mondada (2019, adapted)

*	*	Descriptions of embodied actions are delimited between
+	+	two identical symbols (one symbol per participant and per type of action)
§	§	that are synchronized with correspondent stretches of talk or time indications.

`*--->` The action described continues across subsequent lines
     `*` until the same symbol is reached.

`>>` The action described begins before the excerpt's beginning.
`-->>` The action described continues after the excerpt's end.

`~1~` The action is described in the notes below the transcript.

Abbreviations used in multimodal transcripts:

RH   right hand

LH   left hand

EB   eyebrow

EBR   eyebrow raise

mt   mouth

Appendix C: Additional Transcription Conventions

Source: Barth-Weingarten (2016)

|		cesura marker
⌊an'⌋		cesural area

Zusammenfassung

Bei der Konzeptualisierung von *Sprechkompetenz* findet zunehmend Berücksichtigung, dass Sprache vor allem als Werkzeug zu verstehen ist – Sprecher*innen greifen aus kommunikativen Gründen auf sprachliche Mittel zurück. Trotzdem tendieren Lehrer*innen nach wie vor dazu, die Einschätzung der Sprechkompetenz ihrer Schüler*innen maßgeblich auf der individuellen Fähigkeit zu basieren, fließend zu sprechen und dabei komplexe und grammatisch korrekte Äußerungen zu formulieren (Goh & Burns 2012), und richten gemeinhin darauf ihre Lehre aus. Die Tendenz, Sprechen als das Ergebnis individueller, kognitiver Prozesse zu verstehen (ebd.), trägt zusätzlich dazu bei, dass die Fähigkeit, mit Gesprächspartner*innen zu *inter*-agieren und gemeinsam Sinn zu produzieren, kaum bis gar nicht in bestehende Konzeptionen von Sprechkompetenz einbezogen ist (siehe auch Huth 2021). Derzeit umfasst der Begriff somit nur einen Teil der Fähigkeiten, die für die erfolgreiche Teilnahme an sozialer Interaktion vonnöten sind. Dies ist allerdings der primäre Kontext, in dem Sprache genutzt wird. Eine erneute Rekonzeptualisierung von Sprechkompetenz scheint daher unerlässlich. Hierbei kommt dem Konzept der *Interaktionalen Kompetenz* eine besondere Rolle zu.

Erstmals erwähnt in den 1980ern (Kramsch 1986), stellt die interaktionale Kompetenz eine klar von dem Konzept der *Kommunikativen Kompetenz* (Canale 1983; Canale & Swain 1980; Hymes 1972) zu unterscheidende Begrifflichkeit dar. Während kommunikative Kompetenz im Wesentlichen die Fähigkeit individueller Lerner*innen, in sozialen Kontexten aktiv zu werden, beschreibt (vgl. Ikeda 2017), bezeichnet interaktionale Kompetenz die Fähigkeit, erfolgreich an sozialer *Interaktion* teilzunehmen (Kramsch 1986). Mit der zunehmenden Einsicht, dass diese Fähigkeit eine zentrale Rolle im Sprachunterricht und bei der Bewertung von Sprechkompetenz spielen sollte, geht ein wachsendes Forschungsinteresse am Konzept der interaktionalen Kompetenz einher. Ein reger Diskurs besteht unter anderem darüber, wie genau interaktionale Kompetenz definiert und operationalisiert werden sollte (z.B. Hall 2018, 2019; Pekarek Doehler 2018). Weiterhin mehren sich Studien, die sich mit der Entwicklung von fremdsprachlicher interaktionaler Kompetenz auseinandersetzen (siehe, z.B., Pekarek Doehler & Pochon-Berger 2015). In der aktuellen Lehr- und Prüfpraxis ist das Konzept allerdings weiterhin unterrepräsentiert. Unter anderem mangelt es an (empirisch basierten) Rastern für die umfassende und detaillierte Bewertung interaktionaler Kompetenz. Hier setzt meine Arbeit an.

Mein Ziel ist es, mithilfe qualitativer und induktiver Analysen von Lerner*innendaten *candidate criterial features* (d.h., mögliche Kriterien) zu identifizieren, die zur Bewertung der Reparaturfähigkeit von Englischlerner*innen an deutschen Schulen herangezogen werden könnten. Der Fokus auf Reparaturfähigkeit ergibt sich dabei unter anderem aus der zentralen Rolle, welche dem Reparaturmechanismus in sozialer Interaktion zukommt: Als zentrales organisationales Prinzip der Interaktion (Schegloff 2007) erlaubt er Teilnehmer*innen, mit den allgegenwärtigen Störungen im Gesprächsverlauf (d.h., Sprech- und (Hör-) Verstehensproblemen) umzugehen und somit wechselseitiges Verstehen abzusichern oder, wenn nötig, wiederherzustellen. Dies stellt eine Grundkompetenz für alle Nutzer*innen einer Sprache dar, also auch für Sprachlerner*innen. Hieraus folgt, dass Reparaturfähigkeit als zentraler Aspekt interaktionaler Kompetenz nicht nur als potentielles Lehr- und Prüfobjekt in den Mittelpunkt gerückt werden sollte, sondern als Studienobjekt außerdem gut untersuchbar ist.

Um *candidate criterial features* postulieren zu können, arbeite ich im Rahmen meiner Analysen Unterschiede zwischen Lerner*innen(gruppen) in Bezug auf ihr Reparaturverhalten heraus. Ich folge konzeptionell und methodisch den Forschungsdisziplinen der Konversationsanalyse (z.B. Heritage 1984b), der Interaktionalen Linguistik (z.B. Couper-Kuhlen & Selting 2018) und der Conversation Analysis for Second Language Acquisition (z.B. Markee & Kunitz 2015). Meine Studie basiert auf einem Korpus von rund 4,5 Stunden videografierter Lerner-Interaktion in verschiedenen Settings (Unterrichtsinteraktion, Rollenspielinteraktion, direkte und computermediierte Diskussionen), an der zumeist ausschließlich Englischlerner*innen mit Erstsprache Deutsch beteiligt sind. Die Daten stammen von Grundschullernenden in ihrem ersten oder zweiten Englischlernjahr, von Schüler*innen einer siebten und neunten Gymnasialklasse sowie von Englischstudierenden an einer deutschen Hochschule. Auf Grundlage ihrer bisherigen Erfahrung mit der Fremdsprache wurden die Teilnehmer*innen in Anfänger*innen, Lernende mittlerer Stufe und fortgeschrittene Lerner*innen unterschieden. Die zweite Gruppe enthält dabei die Fälle von fünf Schülern der siebten Klasse, die zusammen eine Kohorte bilden. Insgesamt umfasst meine Kollektion 131 klare Fälle von Reparaturen. Diese habe ich gemäß gängiger Konventionen (GAT2, Couper-Kuhlen & Barth-Weingarten 2011; Multimodale Transkription nach Mondada 2019) transkribiert und jeweils einer detaillierten Einzelfallanalyse nach konversationsanalytischen Prinzipien (z.B. Mikroanalyse, Sequenzanalyse, *next-turn*

proof procedure) unterzogen. Im Anschluss daran habe ich zwei verschiedene vergleichende Analysen durchgeführt: Eine Querschnittsanalyse, in deren Rahmen ich das Reparaturverhalten der Lerner*innen der verschiedenen Gruppen miteinander verglichen habe, und eine fokussierte Gegenüberstellung der Lerner*innen in meiner Sekundarschulkohorte.

Das Herzstück meiner Arbeit ist das Kapitel 5, *Identifying Candidate Criterial Features for Assessing L2 Learners' Repair Skills*, in dessen Rahmen ich mich eingehend qualitativ mit dem Reparaturverhalten meiner Englischlerner*innen auseinandersetze, um auf dieser Basis mögliche Kriterien für eine Bewertung von Reparaturfähigkeit zu identifizieren. Dabei nähere ich mich dem Reparaturverhalten von Sprachlerner*innen aus verschiedenen Perspektiven.

Den Ausgangspunkt des ersten Unterkapitels, *Repair Types and Learners' Orientation to Repair Preferences*, bilden die vier Standardreparaturformate (z.B. Bauer 2020). Meiner Kenntnis nach liegen bisher noch keine Studien vor, die vollumfänglich darüber berichten, wie sich Sprachlerner*innen auf verschiedenen Kompetenzstufen bezüglich der Nutzung dieser Formate in fremdsprachlicher Interaktion unterscheiden. Die verfügbaren Forschungsergebnisse geben jedoch Grund zu der Annahme, dass Unterschiede erwartet werden können. Somit widmet sich das erste Unterkapitel der vertieften Beschäftigung mit diesem Aspekt.

Bezüglich der Reparaturformate, welche Lerner*innen jeweils (überwiegend) einsetzen, zeigt meine Analyse jedoch keine deutlichen Entwicklungslinien. Dies kann möglicherweise auf die verwendeten Daten zurückgeführt werden. Es wird aber deutlich, dass sich meine Lerner*innengruppen bezüglich der Orientierung am Präferenzsystem für Reparaturen unterscheiden. Bereits Anfänger*innen zeigen zuweilen eine deutliche Orientierung an der Präferenz der Selbstreparatur; eine klare Ausrichtung an der Präferenz der Selbstinitiierung wird jedoch erstmals bei Lernenden des mittleren Niveaus ersichtlich. Als mögliches *candidate criterial feature* bietet sich demnach an, inwieweit sich ein*e Lerner*in wahrnehmbar an dieser zweiten Präferenz orientiert. Auf Basis meiner Daten könnte dieses mögliche Kriterium zumindest dazu dienen, Lerner*innen einem allgemeinen Kompetenzlevel zuzuordnen. Inwieweit es nutzbar ist, um zwischen Sprachlernenden derselben Kompetenzstufe zu differenzieren, kann und sollte zukünftige Forschung untersuchen.

Das zweite Unterkapitel, *Practices of Repair Initiation: Searches and Bricolage*, widmet sich den zwei Praktiken zur Selbstinitiierung von Reparaturen, die in meinen Daten am häufigsten auftreten: *searches* und *bricolage* (Gardner 2007). Beide werden gemeinhin mit der Nichtverfügbarkeit eines nächsten Wortes oder Äußerungselementes in Verbindung gebracht, unterscheiden sich allerdings bezüglich des syntaktischen und interaktionalen Umfeldes, in dem sie erscheinen, und implizieren somit verschiedene Problemquellen.

Wiederum bildet eine Diskussion bestehender Literatur die Basis für meine eigenen Ausführungen. Studien zu *searches* in fremdsprachlicher Interaktion zeigen nicht nur, dass Sprachlernende die Praktik breiter einsetzen als Sprecher*innen, die in ihrer Erstsprache interagieren (d.h. zum Umgang mit zusätzlichen Problemquellen bzw. *searchables*; z.B. Koshik & Seo 2012), sondern dass die Nutzung der Praktik durch Sprachlerner*innen häufig Anlass dazu gibt, ihnen eingeschränkte linguistische Kompetenz zuzuschreiben (Kurhila 2006), obwohl der Gebrauch von *searches* auch bei Lernenden nicht selten auf kommunikative Anforderungen oder kontextuelle Einschränkungen zurückgeführt werden kann (z.B. Brouwer 2003). Andererseits könnten Sprecher*innen die Praktik nutzen, um sich als Sprachlernende zu gerieren (ebd.; Koshik & Seo 2012). Gestalterische Unterschiede zwischen erstsprachlichen und fremdsprachlichen *searches* fänden sich dabei sowohl in den sprachlichen Mitteln, die verwendet werden (z.B. Hosoda 2000), als auch in den möglichen sequenziellen Abläufen, die *searches* hervorrufen können (Koshik & Seo 2012). Studien, die sich dezidiert damit beschäftigen, wie sich der Gebrauch der Praktik mit zunehmendem Kompetenzlevel in der Fremdsprache verändert, sind allerdings selten. Meine eigenen Analysen können dabei helfen, dies zu ändern.

Abgesehen davon, dass *searchables* wie grammatische Struktur erst für die Lernenden mittlerer Stufe beobachtbar sind und die Anfänger*innen ausschließlich Wortsuchen im engeren Sinne ausführen, lassen sich bezüglich der Nutzung und Gestaltung von *searches* in meinen Daten zwei interessante Kontraste zwischen hauptsächlich den fortgeschrittenen Lerner*innen und den Lernenden auf Anfänger*innen- und mittlerem Niveau beobachten:

- Lernende auf unteren Stufen nutzen *searches* dazu, um einen Weg zu finden, die aktuelle Äußerung fortzusetzen oder abzuschließen. Die Nichtverfügbar-

keit des nächsten Wortes oder des nächsten Äußerungselements resultiert zumeist aus lückenhaften linguistischen Kenntnissen oder vorübergehenden Problemen damit, ein eigentlich verfügbares *searchable* abzurufen. Die fortgeschrittenen Lerner*innen allerdings nutzen die Praktik wiederholt dazu, um ein ‚mot juste' (Gafaranga 2000) zu finden, also um genau das richtige Wort für ihre jeweilige interaktionale Absicht ausfindig zu machen. Sie zeigen dabei, dass ihnen die Fortsetzung oder der Abschluss der aktuellen Äußerung prinzipiell durchaus möglich ist, die Reparatur also die Optimierung der Redezugsgestaltung zum Zweck hat.

- Die fortgeschrittenen Lerner*innen nutzen für die Gestaltung ihrer *searches* ein deutlich breiteres Spektrum an verbalen und körperlich-visuellen Mitteln und können diese Ressourcen dezidiert als Kontextualisierungshinweise einsetzen. So können sie zum Beispiel *searches* genau vom umgebenden sequenziellen Kontext abgrenzen oder das *searchable* präzise lokalisieren. Die weniger fortgeschrittenen Lernenden zeigen nur im Einzelfall das Potenzial dafür, *searches* flexibler und zweckmäßiger zu gestalten.

Darüber hinaus zeige ich in diesem Kapitel, dass die (Häufigkeit der) Verwendung von *bricolage* als wichtiger Hinweis auf die interaktionale Kompetenz (einschließlich der Reparaturfähigkeit) von Sprachlerner*innen zu verstehen ist. Zwar wird die Praktik von Lerner*innen mittlerer Stufe generell häufig genutzt, doch eine detaillierte Analyse zeigt nicht nur ein wesentlich selteneres Vorkommen in meinen Fortgeschrittenendaten, sondern auch deutliche Unterschiede zwischen den Mitgliedern der Sekundarschulkohorte. Für den schwächsten Lerner dieser Gruppe stellt *bricolage* die dominante Praktik zur Selbstinitiierung von Reparaturen dar, von den anderen wird sie deutlich seltener genutzt. Außerdem sind qualitative Gegensätze zu beobachten: Häufigere Nutzung der Praktik geht einher mit längeren Unterbrechungen der laufenden Aktivität sowie mit größeren Schwierigkeiten, das aktuelle Problem vor Beginn der jeweiligen Gesprächseinheit in Gänze zu lösen und die resultierende Einheit gemäß grammatischer und lexikalischer Normen der Fremdsprache zu gestalten.

Diese Beobachtungen suggerieren die folgenden *candidate criterial features*:

- die (Häufigkeit der) Nutzung von *searches* zur Optimierung der Redezugsgestaltung;
- die Breite des Inventars an Mitteln, die zur flexiblen und zweckmäßigen Gestaltung von *searches* genutzt werden;

- die (Häufigkeit der) Verwendung von *bricolage*;
- das Ausmaß, in dem *bricolage* den Fortgang der Interaktion verzögert und die Art und Weise, in der Lerner*innen das Sprechproblem lösen, das der Verwendung dieser Praktik zugrunde liegt.

Während sich die erstgenannten Kriterien gemäß meiner Daten klar eignen würden, um Lerner*innen einem allgemeinen Kompetenzlevel zuzuordnen, verspricht der Einbezug von *bricolage* in Beurteilungsvorgänge die Möglichkeit, auch innerhalb einer Gruppe von Sprachlernenden Abstufungen bezüglich deren Reparaturfähigkeit vorzunehmen.

Ausgehend von der Beobachtung, dass die Lerner*innen in meinen Daten im Zusammenhang mit Reparaturen nicht selten auf ihre Erstsprache zurückgreifen, beschäftigt sich das dritte Unterkapitel, *L1-based Practices of Repair*, mit Sprachwechseln und Ad-hoc-Übersetzungen als Mitteln zum Umgang mit Störungen im Gesprächsverlauf.

Unterstützung für die Wahl dieses Schwerpunktes findet sich in der bestehenden Literatur. Insbesondere *Code-Switching* ist als Praktik für die Initiierung und Durchführung von Reparaturen durch Sprachlerner*innen gut beschrieben (z.B. Kasper 2004; Gafaranga 2000). Weitere Möglichkeiten, auf die Erstsprache zurückzugreifen, finden gelegentlich Erwähnung in der Literatur (z.B. Hosoda 2000; Greer 2013), sind aber noch relativ unerforscht.

Auch wenn, meiner Kenntnis nach, noch relativ wenige Studien vorliegen, die sich dezidiert damit auseinandersetzen, wie sich der Gebrauch der Erstsprache im Reparaturkontext mit steigendem Lerner*innenniveau verändert, suggerieren erste Forschungsergebnisse, dass Lerner*innen mit der Zeit weniger häufig zum Zweck der Reparaturinitiierung auf ihre Erstsprache zurückgreifen (Lehti-Eklund 2013; Pekarek Doehler & Berger 2019). Auf Grundlage meiner Analysen kann ich weitere Tendenzen feststellen:

- Meine Lerner*innengruppen unterscheiden sich dahingehend, für welche Reparaturaufgaben sie einen Sprachwechsel in ihre Erstsprache gebrauchen. Die Anfänger*innen nutzen Sprachwechsel im Kontext von Fremdinitiierung und Fremdreparaturen, Lerner*innen mittlerer Stufe ziehen diese Praktik für die Selbstinitiierung von Reparaturen heran. In diesen Fällen fällt der Sprachwechsel mit einem Wechsel zwischen verschiedene Phasen eines Reparaturversuchs zusammen. Die fortgeschrittenen Lernenden nutzen Sprachwechsel lediglich

dazu, um mit der Nichtverfügbarkeit eines nächsten Wortes oder Äußerungselementes umzugehen, also im Kontext von Selbstreparaturen.

- Auf mittlerer Stufe beginnen die Lerner*innen, zum Umgang mit einer solchen Nichtverfügbarkeit auf eine weitere Praktik zurückzugreifen, sogenannte Ad-hoc-Übersetzungen: Während sie an der sprachlichen Oberfläche weiter die Fremdsprache verwenden, offenbart die syntaktische und/oder lexikalische Gestaltung des Gesagten, dass es das Resultat einer wörtlichen Übersetzung aus der Erstsprache ist. Gleichzeitig treten Sprachwechsel zum Umgang mit nichtverfügbaren Worten oder Äußerungselementen nicht bei allen Lerner*innen dieser Kompetenzstufe auf: Insbesondere die etwas fortgeschritteneren Lernenden dieser Gruppe produzieren keine Fälle.

- Hinsichtlich dessen, wie die Verwendung von erstsprachbasierten Praktiken zum Umgang mit der Nichtverfügbarkeit eines nächsten Wortes oder Äußerungselementes von den Lerner*innen behandelt wird, zeigen sich deutliche Unterschiede zwischen den Gruppen. Sprachwechsel werden bereits von Lerner*innen mittlerer Stufe als eigentlich nicht zulässige Praktik für diesen Zweck behandelt. Für Ad-hoc-Übersetzungen ist dies erst bei den fortgeschrittenen Lerner*innen der Fall.

Als *candidate criterial features* bieten sich auf Grundlage dieser Diskussion an:

- die Reparaturaufgaben, für die ein*e Lerner*in auf die Erstsprache zurückgreift;

- die Verwendung von a) Sprachwechseln und b) Ad-hoc-Übersetzungen zum Umgang mit der Nichtverfügbarkeit eines nächsten Wortes oder Äußerungselementes;

- die Behandlung dieser erstsprachbasierten Praktiken zum Umgang mit der Nichtverfügbarkeit eines nächsten Wortes oder Äußerungselementes als zulässig oder problematisch.

Während sich ersteres Kriterium, gemäß meiner Daten, primär für die Zuordnung von Lernenden zu einer Kompetenzstufe eignen könnte, beruhen die anderen *candidate criterial features* auf den Ergebnissen beider vergleichender Analysen und sind daher mit hoher Wahrscheinlichkeit auch nutzbar für eine Differenzierung zwischen Lernenden einer Kohorte.

Im letzten Unterkapitel, *Repair Outcome: Failed and ‚Assisted' Resolution of Trouble*, beschäftige ich mich mit den Fällen in meiner Kollektion, in denen es den Lerner*innen entweder vollends unmöglich ist, ein (Sprech-) Problem zu lösen oder in denen sie zur Problemlösung augenscheinlich auf Redebeiträge ihrer Partner*innen oder auf interaktionsexternes Material zurückgreifen.

Zu diesen Aspekten liegen, nach meiner Kenntnis, bislang nur wenige Forschungserkenntnisse vor. Untersuchungen zum Erfolg von Reparaturversuchen von Sprachlerner*innen finden sich primär in Veröffentlichungen der Zweitspracherwerbsforschung (z.B. Sato 2008, 2012). Konversationsanalytische Studien zum Erfolg von Reparaturen fokussieren primär Interaktion, an der Menschen mit Sprachstörungen beteiligt sind (z.B. Wilkinson 2019). Es gibt jedoch erste Hinweise in konversationsanalytischer Forschung, dass weiter fortgeschrittene Sprachlerner*innen zunehmend in der Lage sind, Reparaturen erfolgreich zu initiieren und abzuschließen (z.B. Kley et al. 2021).

Die Analyse meiner Daten zeigt, dass

- erfolglose Reparaturversuche in meiner gesamten Kollektion nur selten vorkommen und zum Großteil in den Daten der Sekundarschulkohorte auftreten. Zwei Kontraste zwischen Lerner*innengruppen lassen sich feststellen: Während die Reparaturversuche der Lernenden auf Anfänger*innen- und mittlerem Niveau aus (momentanem oder anhaltendem) Mangel an fremdsprachlichen Ressourcen erfolglos bleiben, lassen sich die erfolglosen Reparaturversuche der fortgeschrittenen Lerner*innen auf kontextuelle Einschränkungen zurückführen. Darüber hinaus sind es fast ausschließlich die Lerner*innen der unteren Stufen, die auf interaktionsexternes Material zurückgreifen.

- die Lerner*innen mittleren Niveaus deutliche Unterschiede zueinander aufweisen. Dies betrifft nicht nur die Häufigkeit, mit der ihre Reparaturversuche erfolglos bleiben, sondern auch ihre Verwendung von ‚gestützten Reparaturen', also solchen Fällen, in denen sie ihre Probleme nicht gänzlich aus eigener Kraft lösen. Nur einige der Lerner*innen greifen zur Lösung eines (Sprech-) Problems auf Redebeiträge ihrer Partner*innen zurück, dies geschieht zudem in unterschiedlichem Umfang. Interaktionsexternes Material wird von einem einzigen Lerner genutzt.

Es lassen sich die folgenden *candidate criterial features* ableiten:

- das Auftreten von erfolglosen Reparaturversuchen (und, ggf., deren Häufigkeit);

- die Gründe, weswegen die Reparaturversuche erfolglos bleiben;
- der Rückgriff auf Material aus Redebeiträgen von Gesprächspartner*innen (und die Art/das Ausmaß dieses Rückgriffs);
- die (direkte oder indirekte) Nutzung von interaktionsexternen Hilfsmitteln.

Gerade das letztgenannte Kriterium ist jedoch bezüglich seiner Eignung für die Bewertung von Reparaturfähigkeit im Rahmen von Sprechprüfungen zu hinterfragen.

Insgesamt zeigen meine Analysen, dass Lerner*innen höherer Kompetenzstufen tatsächlich auch über ausgereifte Reparaturfähigkeit verfügen. Dies zeigt sich unter anderem darin, dass die fortgeschrittene(re)n Lerner*innen ihre Reparaturversuche in den allermeisten Fällen erfolgreich abschließen. Sollte dies nicht der Fall sein, lässt sich der Mangel an Erfolg kontextuellen Gegebenheiten zuschreiben und weist damit nicht auf (bedeutende) Einschränkungen der Reparaturfähigkeit der jeweiligen Lernenden. Sie verfügen augenscheinlich über eine hinreichend große Auswahl an Mitteln, um Reparaturen eigenständig durchzuführen. Darüber hinaus zeigen die Lerner*innen höherer Kompetenzstufen ein zunehmend breites und vielfältiges Inventar an Reparaturpraktiken auf. Dies ist gemäß bestehender Forschungsergebnisse (u.a. Pekarek Doehler & Berger 2019) ein Kennzeichen steigender interaktionaler Kompetenz. Sie nutzen die Praktiken nicht nur, sondern zeigen ein Bewusstsein für deren Status als Reparaturpraktiken. Zudem können sie verfügbare Gestaltungsmittel und Praktiken flexibel einsetzen. *Bricolage*, eine Praktik, die auf möglicherweise eingeschränkte Reparaturfähigkeit (und eingeschränkte interaktionale Kompetenz im Allgemeinen) hinweist, wird von den fortgeschrittenen Lerner*innen kaum genutzt. Dies weist auch darauf hin, dass diese Lerner*innen in der Lage sind, ihre (Sprech-) Probleme zunehmend ‚nebenbei‘, also zumeist ohne erhebliche Verzögerungen des Gesprächsverlaufs, zu lösen. Sie haben selten Schwierigkeiten damit, die Fortführung ihrer Redebeiträge sicherzustellen und nutzen Reparaturen wiederholt, um die Redezugsgestaltung zu optimieren.

Gleichermaßen wird deutlich, dass auch innerhalb der Sekundarschulkohorte zwischen Lerner*innen mit mehr oder weniger stark ausgeprägter Reparaturfähigkeit unterschieden werden kann. Hierbei zeigt sich, dass die Lerner*innen dieser Kohorte, welche im fokussierten Vergleich die am stärksten ausgeprägten Reparaturfähigkeiten zeigen, in ihrem Reparaturverhalten auch erste Ähnlichkeiten mit den Lernenden der Fortgeschrittenengruppe aufweisen. Zugleich ähnelt der deutlich schwächste Lerner

der Gruppe in mehrfacher Hinsicht den Anfänger*innen. Es lässt sich also postulieren, dass Reparaturfähigkeit als ein Kontinuum zu betrachten ist und dass die vorgeschlagenen *candidate criterial features* Lerner*innen auf diesem Kontinuum verorten.

Meine Studie zeigt, dass *candidate criterial features* mithilfe qualitativer Analysen direkt aus Lerner*innendaten abgeleitet werden können, und sie unterstützt somit das Bestreben, eine Alternative zu derzeit gängigen Ansätzen zur Entwicklung und Gestaltung von Bewertungsskalen (z.B. Fulcher et al. 2011) zu finden. Zudem trägt meine Arbeit zur Operationalisierung des Konstrukts ‚fremdsprachliche Reparaturfähigkeit‘ bei.

Es ist zu erwähnen, dass ein Großteil meiner Forschungsarbeit unter Pandemiebedigungen stattfand. Dies hatte methodologische Auswirkungen auf mein Projekt – für die weitere Auseinandersetzung mit den Ergebnissen meiner Arbeit und für zukünftige Studien, die eine ähnliche Zielstellung wie die meine verfolgen, ist es zu empfehlen, dass Daten genutzt werden, die

- eine größtmögliche Vergleichbarkeit aufweisen, insbesondere in Bezug auf das Ausmaß, zu dem die zu produzierenden Äußerungen bereits vorgegeben sind;
- von einer breiteren Auswahl an Lerner*innen stammen;
- das Zielphänomen noch umfassender repräsentieren.

Weiterhin konnte ich das Konstrukt ‚Reparaturfähigkeit‘ natürlich nicht in seiner gesamten Breite untersuchen: Es gibt eine Vielzahl weiterer Aspekte des Reparaturverhaltens von Sprachlerner*innen, die sich für eine Analyse empfehlen. In Hinblick auf das langfristige Ziel meiner Studie besteht weiterer Forschungsbedarf in der Untersuchung der Praktikabilität der vorgeschlagenen *candidate criterial features*. Meine Arbeit liefert erste Überlegungen zu Aspekten, die hierfür in Betracht gezogen werden sollten. Zu eruieren, ob und inwiefern die *candidate criterial features* tatsächlich als Kriterien zur sowohl validen als auch effizienten Bewertung von Reparaturfähigkeit geeignet sind, obliegt jedoch zukünftigen Arbeiten und bildet einen wichtigen nächsten Schritt auf dem Weg hin zur Entwicklung einer Bewertungsskala für diese interaktionale Fähigkeit und perspektivisch eines empirisch basierten Rasters für die Bewertung interaktionaler Kompetenz im Ganzen.