

Troubleshooting in Norwegian Sign Language

A conversation analytic approach to other-initiations of repair in multiperson Norwegian Sign Language interaction, and ways to communicate conversation analytical data on signed languages in printed and online publications

Kristian Skedsmo

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Thesis submitted for the degree of philosphiae doctor (PhD) in Educational Sciences for Teacher Education Faculty of Education and International Studies

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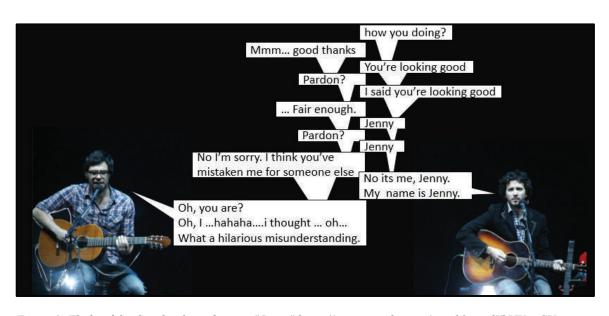
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Figure~1; Flight~of~the~Conchords~performing~"Jenny"~https://www.youtube.com/watch?v=mlYkIJVguCU~information for the conchords of the conchord of the conchords of the conchor

Preface

For de av dere som synes det er styrete å lese engelsk: Det finnes et sammendrag på norsk like i nærheten her som forteller dere mer enn nok til at dere kan påstå at dere har en viss oversikt over hva dette handler om og definitivt nok til at dere med sikkerhet kan fastslå at dette på ingen som helst måte redder verden. Akademias veier er uransakelige. Tegneseriene er nesten bakerst.

This fairly heavy chunk of homework is my doctoral thesis. Doing a Ph.D. is a rather long journey at the interface of anxiety and boredom. All the stories about how few students complete on time and how many never complete at all, supervisors constantly asking for new timetables (i.e., me postponing everything that should have been done into the next semester again), all the well-meaning people asking how the *writing* is going, when I haven't yet completed a single paragraph. All that. And then life.

I hereby, sincerely apologize for all the clumsy and tedious attempts to explain for curious (i.e., polite) friends and relatives what I have been working with. If you really want to get a grasp of what this is about, please read the English or Norwegian abstract. Then remember the wise words of Monty Python's character *The Colonel*: "Right! Stop that! It's silly!"

Acknowledgements

I am afraid this is not one of those prefaces where the exhausted, but content Ph.D. student describes the last three or more years as being segregated from life, spending Saturday nights in the office, living purely from instant coffee and accidentally fermented beef jerky, crying alone in the dark. Nor will you be served the touching expressions of bottomless gratitude toward selfless spouses or aimless toddlers whose untiring support made this insanely selfish voyage possible. That does not mean I am not grateful for all the vital help and support I have received throughout this process. On the contrary. I am full of grate.

I've had the best supervisors!

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is the only person on this planet who has ever successfully climbed this specific kind of mountain before.

My deepest gratitude goes to Anna-Lena Nilsson, my main supervisor and superhero for always responding clearly and thoroughly within minutes, and for devoting a massive amount of her off-duty time to endless reading and feedback-giving (actually as many as three times during one Sunday), for acting sufficiently positive and supportive, for making me feel more skilled than I am, and for also finding the time to discuss (and occasionally consume) triple hopped pale ale. Do not for even one split second believe that you are rid of me.

I thank the assessment committee; Professor Terry Janzen (University of Manitoba, Canada), Associate professor Charlotta Plejert (Linköping University, Sweden) and Professor Finn Aarsæther (Oslo Metropolitan University) for their time and devotion, and for actually reading my thesis A-Z. I also thank Professor Hanne Skaaden for chairing the public defense and the signed language interpreters for their efforts before and during the ceremony.

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Lastly, and most importantly I would like to express my deepest gratitude towards the sixteen Norwegian deaf participants for letting me enter their workspace and record their otherwise private conversations and publish unanonymized videoclips and pictures. You guys rock!

And by the way: I was not anywhere near affording a full proofreading, so please grin and bear it.

Oppsummering på norsk - Norwegian abstract

I denne avhandlinga presenterer jeg en studie av samtaler mellom døve kollegaer på norsk tegnspråk, og hvordan de underveis i samtalen løser problemer med å oppfatte eller forstå. Studien er gjort innenfor den metoden og teorien som kommer fra *samtaleanalyse*. Samtaleanalyse brukes til å utforske sosial samhandling og hvordan folk gjør ulike ting i samtale.

Jeg har samlet inn data ved å filme seks samtaler med grupper på mellom tre og seks deltakere som snakker uformelt i en pause i løpet av arbeidsdagen. Funnene viser hvordan en deltaker kan få en annen deltaker til å gjenta, omformulere eller forklare noe de nettopp sa. Disse praksisene kaller vi andreinitieringer av selvreparasjoner. Noen av disse reparasjons-initieringene beskrives som uspesifikke, altså at de ikke sier noe om akkurat hva det var med forrige replikk som var problematisk. Dermed behandler den uspesifikke reparasjonsinitieringen hele forrige ytring som problematisk. Eksempler på slike på norsk er «Hæ?» eller «Unnskyld?». Andre formater av reparasjons-initieringer kaller vi avgrensende, og disse gir på forskjellige måter og i ulik grad informasjon som hjelper den andre med å finne ut hva som var problemet. Eksempler kan være «Hvem sa du at du møtte?» eller «Hva mener du med kynisk?» De ulike formatene av andreinitieringer av selvreparasjon er analysert både kvalitativt og kvantitativt og funnene er sammenliknet med funn fra andre talte og tegnede språk. Blant resultatene kan vi nevne at det er flest av de avgrensende reparasjonsinitiativene som inneholder «forslag» til hva som ble sagt eller ment. Blant de uspesifikke reparasjonsinitiativene er det flest av de der det ikke brukes noen leksikaliserte tegn, men bare gester, ansiktsuttrykk, bevegelser med hodet eller kroppen. Det er ingen tilfeller av tegnet UNNSKYLD eller andre eksplisitte beklagelser. En underforstått måte å få den andre til å gjenta eller på annen måte reparere det som nettopp ble sagt, som er funnet i argentinsk tegnspråk, kan vi kalle «frys». Den innebærer at den som blir snakket til holder blikket festet på den som snakker også etter at replikken er ferdig, og holder ansiktet og kroppen helt i ro, akkurat som om forrige ytring ikke var ferdig. Vi vet ikke om det gjøres bevisst, men vi ser at det fungerer. Denne måten å framkalle selvreparasjon på er også funnet i denne studien av norsk tegnspråk.

I motsetning til hva som har blitt hevdet før, viser det seg at ganske mange reparasjonsinitieringer ikke umiddelbart fører til en løsning sånn at samtalen kan fortsette. En problemkilde kan bli angrepet to eller flere ganger. Et forsøk på selvreparasjon kan også bli et nytt problem. Da får vi multiple reparasjons-initieringer. Av og til kan til og med en reparasjonsinitiering være rettet mot forrige reparasjonsinitiering. Da får vi en to-lags reparasjonssekvens der den ene må fikses før den andre kan ordnes opp i og samtalen kan komme videre. Funn fra studien viser også at reparasjonsinitieringer med forslag til løsning er mer vanlig blant de siste, eller avsluttende reparasjonsinitieringene, mens de uspesifikke reparasjonsinitieringene og spesielt «frys»-responsen er vanlig blant første-forsøkene som ikke nødvendigvis fører fram.

I samtaleanalyse lages detaljerte transkripsjoner som viser akkurat *hva* som ble sagt, men også *hvordan* det ble sagt, med nøling, repetisjoner, feilsnakk, latter, tonefall, tempo osv. Også overlappinger, der folk snakker samtidig blir nøyaktig notert. Ofte brukes det flere linjer over hverandre for å vise hva samtaledeltakerne gjør med kroppen, som for eksempel blikkretning, ansiktsuttrykk og gester. Flere linjer kan også brukes dersom forskningen formidles på et annet språk enn det språket som undersøkes. I denne studien er det norsk tegnspråk som undersøkes mens jeg skriver om det på engelsk, og transkripsjonene har egne linjer for oversettelse og for tegn-for-tegn-oversettelse («glossing») som viser hva som blir gjort på det originale språket.

Avhandlinga er et bidrag til forskninga på samtalereparasjon, men bidrar også, metodisk, til fagfeltet transkripsjon. En stadig tilbakevendende utfordring i dette arbeidet har vært hvordan de tegnspråklige utdragene skal presenteres sånn at de som ikke kan norsk (eller noe annet) tegnspråk skal skjønne noe av det, samtidig som det er et poeng å unngå å framstille norsk tegnspråk på en uheldig måte. Avhandlinga diskuterer og eksperimenterer med ulike måter å framstille de ofte ganske kompliserte utdragene. Det brukes for eksempel video med tekst (ofte i sakte film), flere-linjers transkripsjon der tegn-for-tegn er representert med engelske ord og med oversettelser, men også tegneserie-inspirerte *grafiske transkripsjoner*. Disse kombinerer bildeseriene, som vi kjenner fra mange skriftlige artikler om tegnspråk, med snakkebobler og andre konvensjoner fra tegneseriene.

Resultatene fra avhandlinga kan danne grunnlag for å undersøke hvordan reparasjon foregår i andre sammenhenger også, som for eksempel i samtaler med tolk, eller situasjoner der noen som holder på å lære norsk tegnspråk snakker med andre i samme situasjon, eller at de snakker med noen som kan norsk tegnspråk godt.

Abstract

In this thesis, I present a study of the ways in which deaf, proficient signers of Norwegian Sign Language (NTS) in informal, multiperson conversations deal with trouble of understanding or perception. The study is conducted within the methodological and theoretical constraints of *conversation analysis*. This is an approach to studying language and communication that uses (sometimes extensive) corpora of naturally occurring talk to induce participants' preferences for conducting various actions in conversation.

For this study, a corpus was collected, consisting of six conversations where groups of three to six participants are having an informal chat during a break during their working hours. Findings show different practices that make the other participants repeat, rephrase, or explain what they just said. These practices are referred to as other-initiations of self-repair. Some of these repair-initiations are described as open in that they do not give any clue about exactly what was problematic. They hence treat the whole prior turn as a trouble-source. Examples in English are for example, "Huh?" or "Pardon?". Other formats of repair-initiations are restricted and to different degrees and in various ways locate the problematic part of the troublesome turn, like for example, "Who did you say you met?" or "What do you mean by cynical?". The different formats of other-initiation of self-repair in the totally 60 minutes of informal multiperson interaction are analyzed both qualitatively and quantitatively and compared to other spoken and signed languages. Among the results are that the restricted repair-initiations containing a "suggestion" (a candidate offer) are the most frequent, and that among the open repair-initiations, those expressed without any lexicalized unit dominate. An implicit practice for other-initiating self-repair is the *freeze-look response*, which is also found in Argentine Sign Language. It consists of the recipient holding their gaze on the utterer after the completion of the trouble-source utterance, keeping the face and the rest of the body still, as if not acknowledging the completion of the utterance. We cannot tell if this is an intentional practice, but we can see that it works.

Contrary to earlier claims, repair-initiations quite often do not instantly lead to self-repair that restores the progress of the conversation. One trouble-source may be targeted two or several times. A tentative self-repair can also become a new trouble-source. This way we get multiple repair-initiations, linked together in different ways. Occasionally, even a repair-initiation can become target of a subsequent repair-initiation, constituting an *embedded* sequence of repair

that must be sorted out before the embedding sequence can be resolved and the conversation can be brought back on track. Findings from the study show that candidate offer repair-initiations are more frequent in the *last* and *closing* positions, restoring the progress of the conversation. Open-class repair-initiations, and especially the freeze-look responses, are more frequent among *first* attempts, which do not necessarily lead to a solution of the trouble.

To examine conversations with close scrutiny, conversation analysis makes use of detailed transcripts. Such transcripts typically are designed to convey not only *what* is said, but precisely *how* it is said, with stuttering, hesitations, repeats, laughter, changes in pitch and pace etc. Also overlapping talk, when people are talking simultaneously, is carefully noted. Multiple lines are employed to show embodied conduct such as facial expressions, gaze, and gestures, but also for translation and glossing, when the data examined is in a language other than that of the publication, as is the case in this study.

This thesis contributes to research on conversational repair in NTS, and, methodologically, also to the field of transcription. A recurrent challenge in this work has been how to present the signed language extracts in ways that both are possible to understand for those who do not know Norwegian (or any) signed language, and that serve the language a minimum of justice. The thesis discusses and experiments with different ways of notating the conversations with its often complex trajectories and communicating them to the reader through different media, such as subtitled, sometimes slowed down video-clips, multilinear transcripts with the signs represented with English words, translations and comic-strip inspired *graphic transcripts*. These combine the photo sequences found in numerous written texts about signed communication with speech bubbles and other conventions known from comics.

This study examines conversations between deaf, NTS signing coworkers, in quite mundane situations. The results can serve as a baseline for examinations of conversational repair practices in other, more specialized contexts, like interpreter-mediated conversation, or learners of Norwegian Sign Language in conversation with each other or with proficient signers.

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List of abbreviations

(Alphabetically)

ASL American Sign Language
BSL British Sign Language
CA Conversation analysis

CEFR Common European Framework of Reference for Languages

FPP First-pair part

IELTS International English Language Testing System

L1 First language
L2 Second Language

LSA Argentine Sign Language (Lengua de Señas Argentina)

NSD Norwegian Centre for Research Data (Norsk senter for forskningsdata)

NTRI Next-turn repair-initiation

NTS Norwegian Sign Language (Norsk tegnspråk)

OCRI Open-class repair-initiation
OIOR Other-initiation of other-repair

OIR Other-initiation of (self-)repair / Other-initiated repair

OISR Other-initiation of self-repair
OSF Open Science Framework
SIOR Self-initiation of other-repair
SISR Self-initiation of self-repair

SPP Second-pair part

STS Swedish Sign Language (Svenskt teckenspråk)

TFH Turn-final hold

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List of articles

Article one

Skedsmo, K. (2020b). Other-initiations of repair in Norwegian Sign Language. Social Interaction. Video-Based Studies of Human Sociality, 3(2). DOI: https://doi.org/10.7146/si.v3i2.117723

Article two

Skedsmo, K. (2020a). Multiple other-Initiations of repair in Norwegian Sign Language. Open Linguistics, 6, 532-566. DOI: https://doi.org/10.1515/opli-2020-0030

Article three

Kristian Skedsmo (2021) How to Use Comic-Strip Graphics to Represent Signed Conversation, Research on Language and Social Interaction, 54:3, 241-260,

DOI: https://doi.org/10.1080/08351813.2021.1936801

1 Introduction

Knowing a language means knowing the words or signs, the grammar, the pronunciation and so on. This "so on" includes how greetings are done in different situations – and how they are responded to, what to start with when you tell a story, how to let the other know that you are not yet done talking but need a couple of seconds to come up with the right expression, how to mitigate a request for assistance – and how to signal that you didn't quite get what the other just said or meant. All these, and many more rather elusive but still vital aspects of knowing a language are typically not treated in textbooks, courses, or classes, and asking native speakers (or signers) does not necessarily provide you with any trustworthy answers. Native speakers typically are experts (Benner, 1984) that intuitively do all these things the "right" way, but often find it hard to explain precisely what they do or why they choose to do just that.

Languages truly are great achievements, but they are by no means foolproof. Neither the languages nor their users are infallible. Misspeakings, misunderstandings, ambiguities, infelicities, hitches, and hiccups inevitably occur for various reasons and, even more interestingly, are dealt with in numerous, efficient ways. The mundane techniques for announcing and solving trouble of production, reception or understanding of utterances are rarely taught, except certain politeness related principles, often advising language learners to use phrases they may rarely experience their native interlocutors using. The predominantly tacit, but supposedly still acquired (Forrester & Cherington, 2009), practices of saying "Huh?" or performing other practices which make interlocutors repeat, paraphrase or change what they just said, have been studied in detail since the seventies. They have, since Schegloff, Jefferson and Sacks' seminal publication in 1977, gone under the name other-initiations of self-repair (OISR). With evidence from real, spontaneous, American English conversations they demonstrated the most fundamental features of conversational repair. The authors' methodological and theoretical approach has gained popularity and is now generally known as conversation analysis (CA). Their work paved the way for numerous other scholars and studies investigating actual, occurring talk-in-interaction as opposed to earlier approaches, like those influenced by Saussure (2011 [1916]) and by Chomsky's (2014 [1965]) view of real talk being too disorderly to be the object of actual studies (see Section 2.1).

This thesis is a conversation analytic study of OISR in Norwegian Sign Language (NTS¹), which also discusses different ways to *transcribe*, or to present conversational data in a stable form to readers, who do not necessarily know NTS. The work stems from a long-time interest in how NTS-Norwegian interpreters deal with trouble with reception and production in interpreter mediated conversations. In my 28 years as an NTS interpreter and 25 years as an NTS interpreter trainer I have noticed that interpreters and learners of NTS recurrently perform these actions in ways neither idiomatic in Norwegian nor in NTS. The students are taught NTS by deaf signers who have NTS as their preferred language, but we have lacked empirical knowledge about the practices for OISR in NTS and we have also been suffering from unsatisfactory means for notating and communicating conversational trajectories in NTS for scientific analyses and for sharing CA data and findings for the purposes of research, publishing and education. Given the scope of the thesis, this introductory chapter will introduce the reader to NTS, CA, transcription, and conversational repair. These four matters will therefore be briefly presented in the following. The three latter will be further elaborated on in the subsequent chapters.

1.1 Norwegian Sign Language (NTS)

There are approximately 16,500 users of the signed language NTS, and approximately 5,000 of these are deaf (NDF, 2020). NTS is one of many² signed languages in the world. The first school for the deaf in Norway was established in 1825. There, deaf children were taught through NTS from the start, but the language policy has been through radical changes through the years. Both NTS and its users have been devalued and suppressed through oralism (teaching the deaf through spoken language and lip-reading), mainstreaming and an untiring belief that vocal speech is what separates man from animal and a superior vehicle of thought (Hjulstad, 2017; Skedsmo, 2016).

It has been known for more than half a century that signed languages are full-fledged languages (e.g., Frishberg, 1975; Kendon, 2008; Stokoe, 1960; Tervoort, 1953; Tervoort, 1961).

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¹ Norsk tegnspråk. Abbreviations referring to signed languages, even if presented in English or other lingua francas, are conventionally based on the name of the language in (one of) the written languages used in the same area. Argentine Sign Language is called LSA (Lengua de Señas Argentina), and Swiss German Sign Language is referred to as DSGS (Deutschschweizer Gebärdensprache). Exceptions are signed languages in areas that do not use the Latin alphabet, like Russian Sign Language, abbreviated RSL.

² Ethnologue (Eberhard et al., 2020) lists 144 signed languages https://www.ethnologue.com/subgroups/sign-language

They are both different from and share grammatical features with other signed and spoken languages. The two most persistent and conflicting myths about signed languages are, however, still frequently encountered. One is that signed languages are merely visual-gestural versions of their surrounding spoken languages. The other one, obviously contradicting the first, is that there is just one, international sign language. Linguistic research has been conducted on various signed languages (see e.g., Perniss et al., 2007; Pfau et al., 2012; Vermeerbergen & Nilsson, 2018 for comparative work). Signed languages are expressed both by manual signs and non-manual markers (facial expressions, mouth gestures and other bodily behavior) to form utterances and perform communicative actions, equivalent to those performed with spoken languages.

Despite a growing academic interest in NTS, the language is largely unexplored. Some linguistic studies of grammatical features have been conducted (e.g., Bø, 2010; Erlenkamp, 2011a, 2011b; Ferrara, 2017, 2019; Ferrara & Ringsø, 2019; Liddell et al., 2007; Schrøder, 2011; Selvik, 2006; Vogt-Svendsen, 1981, 1990; Vogt-Svendsen & Bergman, 2007) and two introductions to NTS (Halvorsen, 2020; Vonen, 2020) have recently been published. Some studies have also been done within the fields of language politics and education (e.g., Berge & Ytterhus, 2015; Holten & Lønning, 2011; Skaten, 2005; Vogt-Svendsen, 1983). Interactional research is almost non-existent, with an exception of the works by Hjulstad (2016, 2017) and studies of NTS in the tactile modality (Mesch et al., 2015; Raanes, 2011). NTS is taught as an optional foreign language at some upper secondary schools and can be studied at university level in three Norwegian cities. Until recently NTS has only been offered as a one-year program for beginners, or as a part of a three-year NTS interpreter program, but programs offering NTS studies without involving interpreting are being developed.

The following two sections will provide brief introductions to CA and transcription, which will both be presented in more detail in the literature review (Section 2).

1.2 Conversation analysis (CA)

This thesis is written within the theoretical and methodological perspectives of CA. CA is a research tradition known for its close analyses of the nitty-gritty, and seemingly unorderly details of talk in interaction. Spacious, specialized transcripts expose every audible inbreath and slightly prolonged or cut vowel sound with sometimes extreme accuracy, revealing complex details about mundane activities such as the organization of openings or closings of telephone

dialogs (Huth & Taleghani-Nikazm, 2016; Schegloff, 1968; Schegloff & Sacks, 1973). The initial developers of CA, Harvey Sacks and Emanuel Schegloff were familiar with both Goffman's theories about social interaction and Garfinkel's ethnomethodology, and set out to study talk-in-interaction by carefully analyzing recordings of naturally occurring conversation. In 1972, Sacks published "An initial investigation of the usability of conversational data for doing sociology". Among the most cited collaborative works, also including their close associate Gail Jefferson (see Section 1.3), we find Sacks et al. (1974) about turn-taking, and their seminal work on conversational repair (Schegloff et al., 1977), cited in practically all subsequent studies of conversational repair. CA is both a method and a theory and will be elaborated on both in the literature review (Section 2) and in the methodology chapter (Section 3).

1.3 Transcription

Gail Jefferson, a former student of Sacks, who later worked for Sacks as a typist, was assigned the task of typing out audio recordings of conversations. To be able to do this with the required accuracy, she developed the transcription conventions later known as Jeffersonian transcription (Hepburn & Bolden, 2012; Jefferson, 2004). The format normally consists of numbered lines with a detailed transcript of what each interlocutor utters with phonetic approximations to display elements of pronunciation, laughter, audible breathing etc. Overlaps between the speakers' utterances, pauses, notable changes in volume, pace, pitch etc. are marked – all by employing the regular symbols on a normal typewriter keyboard (see Section 2.4 for examples). Jeffersonian transcription conventions (Jefferson, 2004) have become the standard as CA has developed since the sixties and seventies. Questions around transcription practices, and especially regarding signed languages are elaborated on in Section 3.7.

Regardless of scrutinous notating and spacious transcripts, it is important to emphasize that a transcript (also the ones presented in this thesis) is still a simplified display of certain, selected features of the actual audio and/or video data (Duranti, 2006; Hutchby & Wooffitt, 1998; Psathas & Anderson, 1990; Skedsmo, in press). It is also vital to clarify that the act of transcribing is not merely a tool for presenting or publishing the research. Choices made regarding how to transcribe, represent important steps in the process of exploring the data (Heath et al., 2010). It is hence impossible to separate the transcription from the analysis (Hjulstad, 2017; Ochs, 1979).

The next section offers a condensed description of conversational repair, and other-initiation of self-repair, as a preparation for presenting the three articles and a description of the overall aims and specific research questions of the thesis.

1.4 Conversational repair and other-initiation of self-repair

When some kind of trouble of either production, perception or understanding occurs and the progress of the conversation is broken, some action will often be conducted to fix the problem. The term repair was coined by Schegloff et al. (1977) to replace correction, as the notion of correction implies that an error has been made, which is not always the case (see Section 2.3). Quite often the trouble is detected and dealt with by the very speaker of the troublesource, which makes it a case of self-initiated self-repair (SISR). The speaker can also apply for assistance from an interlocutor, which constitutes a self-initiated other-repair (SIOR). The next group in this taxonomy of conversational repair consists of the other-initiated other-repairs (OIOR), which would mean that the recipient is correcting what the speaker said. These corrections are generally the least frequent kinds of repair in peer-to-peer conversation, while they are not uncommon in other contexts (see Section 2.4). If the trouble is related to perceiving or comprehending what was just said, a recipient might announce that there is a problem and urge the speaker of the problematic to repeat, rephrase or otherwise do whatever self-repair sufficient to restore the progression. The act of signaling trouble but leaving for the trouble-source utterer to sort out the problem, is other-initiation of self-repair (OISR) and is what this thesis is mainly about. More details on the different kinds of OISR and their occurrence in NTS and other languages will be given a fair amount of space in the literature review and are also given considerable attention in the three articles, which will be presented in the following section.

1.5 Brief presentation of the three articles

The thesis consists of a synopsis and three research articles. The first article is an overview of different formats for other-initiating self-repair based on 112 individual cases of OISR in a corpus of informal, multiperson³ NTS conversation. It was published in *Social Interaction* – *Video-based Studies of Human Interaction* (Skedsmo, 2020b). This open access journal is

³ This thesis, following Bolden (2011) and Egbert (1997), uses the term "multiperson" instead of "multiparty," focusing on the different persons' contributions to the conversation, rather than parties, potentially consisting of several persons.

web-based and has a HTML interface. This interface allows for video clips being integrated in the text, which is convenient for displaying video examples, along with multilinear transcriptions and pictures. The examples in the article are presented both as English summaries and multilinear Jeffersonian transcripts as well as with subtitled video extracts in both full-speed and half-speed. Extra attention is given to the occurrence of the implicit repair-initiation called *freeze-look*, which is also found in Argentine Sign Language (Manrique, 2016, 2017; Manrique & Enfield, 2015, see Subection 2.5.2.3).

The second article (Skedsmo, 2020a) focuses on multiple OISR sequences. They occur when more than one repair-initiation is needed to get the conversation back on track again. The article maps three different trajectories constituting multiple OISR sequences: The problematic part can be targeted two or more times, a (failed) self-repair can become a new trouble-source, or the repair-initiation itself becomes a trouble-source. The article shows examples of these three trajectories and also contains a small quantitative analysis of the distribution of different formats of repair-initiations in different sequential positions in multiple repair sequences. The second article was published in de Gruyter's journal *Open Linguistics*. This journal is an open access journal which publishes its articles in PDF format. Hence the examples are presented with multilinear transcriptions and photo sequences, but three subtitled video clips are made available for streaming from Open Science Framework⁴ (OSF) by following hyperlinks in the article.

The third article is about transcription methods and ways to present complex stretches of conversational data on signed languages in print. It consists of a small-scale study of a single extract of multiperson conversation where trouble arises as interlocutors respond to utterances (partly) produced when they are not looking toward the one who is signing. As signers in a multiperson conversation cannot and do not consistently look directly at each other throughout a conversation this calls for attention. The brief analysis is embedded in a discussion of different ways to present signed languages in journals. To present examples from a signed minority language with no conventionalized written form in a written English language publication has its challenges. Various phonetic transcription systems for signed languages can pre-

4 https://osf.io

sent handshapes, movements, and articulation, but are only used in rather small academic environments, none of them are intuitively readable for newcomers and none of them are established in Norway. International publications on sign linguistics tend to notate the signing signby-sign with capitalized words in their uninflected form instead, with abbreviations and symbols added as prefixes or suffixes to show grammatical modifications of the signs, non-manual markers etc. This is usually called "glossing", which within spoken language research usually refers to a semi-translated line located between the transcription of the original language investigated and an idiomatic translation of the data into the language of the publication. The difference is that in glossed transcripts of signed languages, an accurate transcription of the original language, is most often missing. This gives a transcript that does not allow for a competent reader to recreate the original language, as the glossing says little about how the signs were physically performed. In the search for a comprehensible way of displaying examples from NTS to readers who do not know NTS, with sufficient accuracy of the crucial interactional points that we want the reader to see, this article experiments with comic-strip inspired graphic transcripts of the extracts. The article is currently (March 2021) accepted for publication by Research on Language and Social Interaction.

1.6 Overall aims of the study and research questions

As talk in interaction rarely flows completely unhindered and trouble of perception or understanding recurrently occurs, action is taken to make the other clarify what was said or meant. The thesis seeks to investigate practices for dealing with trouble in communication in NTS covering both individual cases of OISR (Dingemanse et al., 2016; Schegloff et al., 1977; Skedsmo, 2020b) and multiple OISR sequences (Kendrick, 2015b; Levinson, 2015; Schegloff, 2000b; Skedsmo, 2020a). The thesis also explores graphic transcripts for displaying signed conversational data to international readers who do not know NTS. As part of experiments with graphic transcripts, a small-scale investigation of trouble arising subsequent to recipients not looking toward the addresser during (parts) of utterances is conducted (Skedsmo, in press).

The overall aims of the thesis are to provide knowledge about how different formats of OISR are organized and distributed in informal multiperson NTS conversation, and how such research and findings can be communicated in a written form, in ways that provide readers with the necessary access to the data in a comprehensible way.

The specific research questions in this thesis are:

- 1. Which formats and subtypes of other-initiations of self-repair are found in informal multiperson conversations in Norwegian Sign Language? (Article 1)
- 2. How are the different formats and subtypes of other-initiations of self-repair distributed in informal multiperson conversations in Norwegian Sign Language? (Article 1)
- 3. How are sequences of multiple other-initiations of self-repair interconnected in informal multiperson conversations in Norwegian Sign Language? (Article 2)
- 4. How are the different formats and subtypes of other-initiations of self-repair distributed in sequences of multiple other-initiations of self-repair in informal multiperson conversations in Norwegian Sign Language? (Article 2)

During the work with analyses, discussions, and presentations of the data, and during the preparation of Articles 1 and 2, a growing dissatisfaction with traditional sign-by-sign transcriptions of NTS emerged. This led to various experiments with photo sequences and different graphic transcriptions which materialized into Article 3, with the following research question:

5. What are the advantages and disadvantages of graphic transcripts with English translations to (re)present signed language data for conversation analytic publications? (Article 3)

The graphic transcript as a format is the main focus in the third article, but an evaluation of a method for transcription must be made in relation to a research question. Embedded in the third article is therefore a small investigation of conversational trouble occurring when participants miss out on (parts) of utterances produced when they are looking away.

As mentioned in Section 1, my initial interest in conversational repair in NTS comes from the perspectives of NTS-Norwegian interpreting and second language acquisition of NTS. Due to space limitations and the limited amount of time available for a Ph.D., the three articles are solely concerned with proficient NTS signers' practices in monolingual conversations and do not to any significant degree discuss the applicability of these findings to other domains. The discussion chapter (Section 5) of this synopsis, however, addresses the relevance of some of the findings to the fields of interpreting and second language acquisition.

2 Literature review

Research traditions on naturalistic conversation are fairly young, as are those on signed languages, starting with Bernard T. Tervoort's dissertation about Dutch children's signing (1953) and William C. Stokoe's investigations of American Sign Language (ASL) in the middle of the last century (1960). The combination of these, research on naturalistic conversation in signed languages is still a rarity, but a growing accept of signed languages as "real languages" combined with a growing development of multimodal perspectives on communication in general (see e.g., Bezemer, 2014; Deppermann, 2013; Edlund et al., 2014; Heath & Luff, 2012a; Mondada, 2018, 2019a, 2019b) paves the way both for research on interactional aspects of signed language conversation and an increased interest in such research outside the field of signed language specific journals and conferences. This literature review will briefly present key concepts from CA, both as a theory and as a method. This will be followed by a review of conversation analytical studies of conversational repair, hitherto mainly conducted on spoken language interaction, with regard to established taxonomies of these practices related to how the individual cases of conversational repair are formatted and their participation framework. The chapter will then draw attention to some central developments, ambiguities, and conflicts in the field, account for some of the CA research published on signed languages and point to other, relevant research. The review will contribute to positioning this thesis in the topography of earlier work. First comes a brief account for the origins of CA and some of its key concepts.

2.1 Conversation analysis as theory and method

This thesis is built on CA both with regard to research methods and theoretical framework. CA is primarily associated with the works of Harvey Sacks (1935-1975), Emanuel Schegloff (1937-) and Gail Jefferson (1938-2008) and initially had turn-taking, sequences and repair as its major domains (Whalen & Raymond, 2000). The theoretical insights of CA are inductive upshots of data-driven studies of actual human interaction. CA is suggested to be inspired by two major influences from the field of sociology, namely Erving Goffman's work on interaction order (e.g., 1959, 1963; 1967, 1982, 2010) and Harold Garfinkel's ethnomethodology (e.g., 1967, 1991) (Heritage, 2001, 2003, 2009). While Sacks was killed in a car accident, only 40 years old, Schegloff and Jefferson have co-authored and published several works where Sacks features as author or co-author posthumously (e.g., Sacks, 1984, 1989a, 1989b;

Sacks et al., 1995; Sacks et al., 2015; Schegloff et al., 1977). Goffman's work on social interaction and face-to-face communication certainly contributed to an academic interest in conversation, but his methods were different from those applied within CA. Even though Goffman claims that "For myself I believe that human social life is ours to study naturalistically" (Goffman, 1983, p. 17), Schegloff (1988a) criticizes his work for being based on madeup examples of interaction. In his introduction to the posthumous publication of Sacks' "Lectures on conversation" (Sacks et al., 1995), Schegloff draws attention to a striking lack of influence from the works of Goffman in Sacks' work, despite Goffman being Sacks' teacher during his time at Berkely, and that Sacks took Goffman very seriously. As a student, Sacks also met Harold Garfinkel, who in 1963 arranged for Sacks to work with him at the Center for the Scientific Study of Suicide, where Sacks was given access to a set of tape-recorded telephone calls to the Suicide Prevention Center. Listening to these tapes made Sacks notice that the callers acted reluctant to give their names without explicitly refusing to do so. He also took an interest in different other practices conducted in the openings of the telephone conversations (repair-initiations, confirming repeats of the other's name etc.). These practices allowed for the conversation to go on without the caller's name being revealed. This curiosity about investigating the talk itself as an object led to what must be seen as the very start of CA, with Sacks writing "An initial investigation of the usability of conversational data for doing sociology" in 1964/65, which was first published years later (Sacks, 1972) and Schegloff writing his dissertation "The first five seconds: The order of conversational openings (1967, unpublished) and "Sequencing in conversational openings" (1968).

Garfinkel's phenomenologically informed ethnomethodology (Bjelic, 2019; Garfinkel, 1967) was based on a belief that human beings make shared sense by using shared methods of practical reasoning (Heritage, 2001). This shared sensemaking is achieved by the society members' production and recognition of actions, for which they are accountable (Garfinkel, 1967). The social actions create shared understandings, which again construct social institutions underpinned by shared presuppositions about how interaction usually works. The tacit methods people use for constructing and interpreting each other's actions are available on the surface of social interaction and hence also describable. This perspective is fundamentally different from earlier claims (cf. Parsonian sociology) of actual social interaction being too disorderly to examine (Heritage, 2001).

Within CA, we find a Wittgensteinian concept of understanding, not as an ongoing process or sudden happening but rather as a momentarily experienced capability - like the sudden awareness of "being able to go on" (Wittgenstein, 1958, §146-154). Evidence for experienced intersubjectivity in interaction is hence found by employing the next-turn proof procedure (see e.g., Dingemanse et al., 2015; Hutchby & Wooffitt, 1998; Reber, 2012; Sacks et al., 1974, see also Section 2.2 and 2.7.5). The conversationalists display and demonstrate their understanding of each other's prior turns by their own production of subsequent turns. Conversationalists demonstrate a preference for progressivity (Clift, 2016; Sidnell & Stivers, 2012; Stivers & Robinson, 2006) and an experienced intersubjectivity is what conversationalists treat as sufficient for being able to go on with the conversation.

Both Goffman's claim that social interaction was governed with rules and patterns that could and should be investigated, and Garfinkel's theory of human beings having observable methods for achieving shared sensemaking were important influences for establishing CA. A major difference was, however, the scientific methods used, and hence the status of the findings. CA is data-driven, rather than theory-driven (Hutchby & Wooffitt, 1998). While Goffman used anecdotical evidence and made-up examples of interaction to formulate rules of social interaction, Sacks and his colleagues turned to actual, naturally occurring talk (or records of it) as data to induce a different kind of rules that applied less to constraints of behavior and more to devices for understanding other's behavior (Bilmes, 1988). Garfinkel's seminal work on ethnomethodology was groundbreaking, but his methods were rather experimental. CA generally focuses on inducing the interactants' practices and preferences by investigating rather mundane activity, which used to be discarded as disorderly and irrelevant by Parsonian sociology, which was focusing more on the "big issues" (Sacks, 1984, p. 22). The lack of interest for the everyday details of interaction by the established sociology constitutes a striking parallel to the world of linguistics, and the Sassurian and Chomskian discarding of actual face-to-face communication as too disorganized to be of any scientific interest for linguistics (Chomsky, 2014 [1965]; Saussure et al., 2011 [1916]). Sacks (1984) took the opposite stance and claimed that there is "order at all points" (p. 22). We will now move on to a description of some of the most central concepts of CA.

2.2 Key concepts of conversation analysis

One central concept within CA deals with sequential organization, meaning that a stretch of conversation can be seen as series of sequences, typically organized as adjacency pairs (Sacks

et al., 1974; Schegloff, 2007; Stivers, 2012). A first-pair part (FPP) like an *offer* or a *request* is recurrently followed by the other interlocutor providing a second-pair part (SPP) which in both these cases will be either an *acceptance* or a *rejection*. There are normative aspects to this, as any competent conversationalists possesses, often tacit, knowledge about certain FPPs soliciting a limited amount of adequate SPPs, where some are preferred over others.

A *preference* in CA is not a matter of enjoying one thing over another, neither is it merely a statistical tendency of distribution. Rather it is a perspective where the organization of sequences lays a set of normative values upon the conversationalists (Stivers et al., 2011). A preferred response to an FPP, for example an *invitation* is an *acceptance*, and the preferred SPP to a question of what time it is, is exactly that information. Dispreferred responses certainly occur, but contrary to the brief and direct preferred response, a dispreferred response must be accounted for, and they are regularly marked with delays, hesitation, explanations, apologies and other evidence demonstrating that the responder is aware that this response does not fulfill the preference (Pomerantz, 1975; Sacks, 1987).

A central feature of CA's examination of naturally occurring conversational data is the principle of the next-turn proof procedure (see e.g., Dingemanse et al., 2015; Hutchby & Wooffitt, 1998; Reber, 2012; Sacks et al., 1974; Sidnell & Stivers, 2012, see also Section 3.2 for a more extensive discussion about the notion of 'naturally occurring' data related to the data of this study). This procedure highlights the *emic* perspective (Pike, 2015 [1954]) where the focus is not what action the analyst may interpret an utterance to perform, but instead taking the perspective of the participants themselves, by focusing on what a turn is treated as in the next turn. The actions performed and the practices employed to achieve them (Schegloff, 1997a) are extracted from the data based on a notion of procedural consequentiality (Schegloff, 1991b) where an action needs to have consequences to be considered as that particular action. This kind of backwards causality discards speculation about the conversationalists' intentions, in other words, what the analyst believes the interlocutors "really meant", and instead looks at what they treat each other's utterances as having been about. The sequence-by-sequence or turn-by-turn trajectories of a conversation are seen as not only developing in a context, but also developing the context (Heritage, 2009). This sequential and interactional context (Schegloff, 1996) is as such co-created by the interlocutors' invoking and highlighting various contexts from an infinite well of potential contexts available to them (Schegloff, 1992a).

A domain of research that has been central within the development of the CA tradition, is that of conversational repair, which this thesis is about, and which will be focused on next.

2.3 Conversational repair



Figure 2: One of few examples of conversational repair in popular literature (Song lyrics). Bret McKenzie and Jemaine Clement, from the TV series Flight of the Conchords, season 1, episode 3, "Think about it (think, think about it)". Screenshot from YouTube: https://www.youtube.com/watch?v=TLEK0UZH4cs

For technological (and ideological) reasons, studies of language have traditionally been concerned with exploring written language (Allwood, 1996; Linell, 1982, 2005). Reading and writing is of course also communication, and so, miscommunication does occur. Still, writers often have the convenience of being able to correct errors and clarify ambiguities before the text hits the reader. At the other end, readers can backtrack and read again what first seemed unintelligible or ambiguous. In face-to-face interaction troubles of production, perception or understanding, halting the progress of the interaction, are often sorted out there and then. The earliest descriptions of the fallacies of conversation took most interest in explaining speech errors. Freud (1929 [1916–1917]) showed an interest in examining misspeaking in a psychoanalytic perspective, and coined the expression "slip of the tongue" (later also called "Freudian slip"). He saw this "parapraxis" not as accidental, but as repressed subconscious thoughts slipping out, and hence as a window to the subconscious mind. While Freud was mostly interested in explaining the reasons for errors Schegloff et al. (1977), as a crucial part of their re-

search on the organization of naturally occurring conversation, pioneered exploring how troubles in conversation are announced and solved. Jefferson had already published "Side sequences" (1972) and "Error correction as an interactional resource" (1974), but the undoubtedly most cited work about the subject is Schegloff, Sacks and Jefferson's seminal article "The preference for self-correction in the organization of repair in conversation" (1977). Their project was concerned with exploring the practices and actions (Schegloff, 1997a) conducted to sort out troubles of production, perception and understanding to restore the progress of the ongoing conversation.

Being a mundane phenomenon, conversational repair has been, and is discussed in numerous scientific and nonscientific context. Within interpreting studies, practices of conversational repair is often referred to as 'clarification' (Crawley, 2016; Llewellyn-Jones & Lee, 2014; Napier, 2013, 2016). Within CA literature on conversational repair, there is also quite a bit of variation and inconsistency regarding how different kinds of repair and different parts of an OISR-sequence are referred to. One of the first umbrella terms including conversational repair was "Side-Sequences" from Jefferson's article with the same name (1972). The term *side-sequence* included not only repair-work, but also other meta-talk activities like (laughter-infused) other-repeats that structurally resemble OISR but which rather constitute a wise-crack, or an other-repeat to mark appreciation of a joke. The term *repair* (Schegloff et al., 1977), is now most common within CA, while *correction*, as in treating something oneself or an interlocutor just said as erroneous, is described as one of several possible kinds of repair sequences. Schegloff et al. (1977) explicitly argue that repair also occurs when there are no hearable mistakes made. Hence a *trouble-source*, (or a *repairable*) is what the repair is targeting, which in principle can be anything (Schegloff et al., 1977).

The term *repair* has not gone uncriticized. Goffman (1981) and Plejert (2004) argue that also *repair* implies that something is faulty or broken and needs fixing, while the target of a conversational repair often is not erroneous at all. Surprisingly, Goffman (1981, p. 225) suggests the term "faultable" as his version of *repairable*.

Goffman long preceded Schegloff, Jefferson and Sacks in his descriptions of social interaction, though, with different aims and methods (see Section 2.1). Goffman's resistance toward the term *repair* might be related to him having already used it in his metaphors about how we continuously work on how we represent ourselves to others (1959, 1981). Goffman has been

criticized for "his insistence on discarding concepts developed elsewhere" (Helm, 1982, p. 156).

Among the achievements in Schegloff et al. (1977) were taxonomies dividing cases of repair into different categories, which are still used by many. One of the taxonomies is about the participation framework of an instance of repair, dividing the cases into four different categories trough reviewing which interlocutor does which part of the repair sequence.

2.4 Who does what in a case of repair?

Repair can be self-initiated or other-initiated and the repair itself can be a self-repair or an other-repair (Albert & de Ruiter, 2018; Schegloff et al., 1977). Self-initiated self-repair (SISR) is when the utterer (A) by themselves detects that something in an on-going or just finished utterance should be changed or modified. A can treat for example a word, reference, or pronunciation as wrong, inappropriate, or otherwise suboptimal. These repairs are often done within the problematic turn, or immediately after it (see Section 2.7.1 for third turn SISR). Repair can also be initiated by self and completed by other (B); a self-initiated other-repair (SIOR) occurs when A runs into a problem and urges or invites B to help ("Uhm... what shall I call it") and B contributes with a candidate or declares a lack of ability to help. If B is both the one who points out the need for repair, and the one who completes it, what we have is an other-initiated other-repair (OIOR) or basically an other-correction. These are the least preferred kind of repair sequence in most contexts (Schegloff et al., 1977). They are face-threatening (Goffman, 1967) to both A and B, as A becomes the one who made a mistake and B is criticizing A for it. There are, however, many contexts where OIORs are more common, like in classrooms (Macbeth, 2004; McHoul, 1990) and other asymmetrical, instructional contexts where A is a learner and B is an instructor, like in parent-child relations and other more or less formal expert-novice situations, (Wilkinson, 2002) or when two or more people are coauthoring a story they both/all claim to know (Kurhila & Haakana, 2009).

When B announces trouble with what is said but leaves it to A to complete the repair, we have an other-initiated self-repair. This is the kind of sequence mainly investigated in this thesis. As we shall see in Section 2.5 self-repair can be requested in different ways. A quite common format is the well-known "Huh?" or "What?", as shown in Extract 1. (All extracts quoted from previous research are given a homogenous design here. If there were no line numbers

such have been added, the interlocutors are given the aliases A and B instead of whatever initials or pseudonyms they were originally given, arrows, indicating repair-initiation are added, and overlaps are indicated with left square brackets, and also right square brackets where end of overlapping sequence is provided in the original. In addition, the extracts are provided with an explanatory column to the right. An overview of transcription conventions employed in the synopsis is provided in Appendix 1):

Extract 1:OISR. Originally Extract 26 [NYE:2] p. 367

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    1. A: Have you ever tried a clinic? Trouble-source
    2. B: → What? Repair-initiation
    3. A: Have you ever tried a clinic? Self-repair
    4. B: ((sigh))No, I don't want to go to a clinic. Restored progression
```

Despite the many shapes of OISRs, they have a relatively consistent composition of a troublesource, a repair-initiation and a self-repair before the conversation can move on. There are quite a few variations on how the three different parts of the OISR-sequence are referred to. The self-repair is sometimes denoted the *repair proper* (Benjamin, 2013; Benjamin & Mazeland, 2013; Schegloff, 1992b; Svennevig, 2008) or candidate solution (Schegloff, 1997a). The articles in the special issue on OISR of *Open Linguistics* (Dingemanse & Enfield, 2015/2016) and other articles related to the same cross-linguistic comparative project (e.g., Dingemanse et al., 2014; Enfield et al., 2013) refer to this third part as the *repair solution*. These articles also use the terms T-1 (trouble-source), T0 (repair-initiation) and T+1 (self-repair) for the three parts, while Robinson (2006) simply refers to them as 1, 2 and 3. In some studies a fourth part is also identified in the transcripts and analyses. This is the turn that proves that the repair sequence was functional by demonstrating restored progression (see Extract 1 above). The articles in Dingemanse and Enfield (2015/2016) refer to this last part as T+2. While the "T-abbreviations" (e.g., T-1) are space-effective and logic in their own way, it seems they are not (yet) very widespread. This thesis therefore uses the terminology shown in Extract 1.

Goffman (1981) is also critical toward the concept of *initiation* (of repair) as it can easily be understood as beginning to do the actual repair. He does not mention that this dual meaning is rather obligatory when talking about SISR and OIOR. In such repair sequences the one that performs the repair both initiates and completes the repair – often in one and the same turn. Regarding the other two categories (SIOR and OISR) the ambiguity of the term *initiation* is certainly relevant. Goffman suggests the terms "flag" or "notification" (Goffman, 1981, p.

212). This thesis, however, uses the term *initiation* since it is the most used term in the relevant literature.

In CA, OISR is frequently referred to as OIR, often as an abbreviation of other-*initiated* repair, without denoting who is performing the repair. This use of "OIR" allows for a bit of confusion, as an OISR is often quite different from an OIOR. This might have to do with some researchers discarding OIORs or *other-corrections* from the domain of conversational repair (Kendrick, 2015b), as does the comparative study of ten languages in Dingemanse and Enfield (2015/2016). Wilkinson (2002) includes OIORs in the larger domain of conversational repair, but suggests that repair is related to trouble of establishing and maintaining mutual understanding, while correction is about errors. Some formats of OISR can, however, as we shall see in Section 2.5.1.1, conflate into OIOR.

This study does not focus on OIOR in general, but acknowledges them as part of the system and upholds the distinction between OIOR and OISR throughout the text (as do Albert & de Ruiter, 2018; Bloch & Wilkinson, 2004). The first and second articles (Skedsmo, 2020a, 2020b) do, however, use the abbreviation OIR, to conform with the terminology of prior articles about conversational repair.

Another problem with the expression "other-initiated repair" also needs to be addressed. Several studies conducted on OISR since Schegloff et al. (1977) announce that they investigate "other-initiated repair", (e.g., all the twelve articles in Dingemanse and Enfield (2015/2016)), while they predominantly do not focus on how the (self-)*repair* is done, but rather on the *initiation* of it – in other words, how trouble is signaled. As such, the term "OIR" can refer both to the whole sequence consisting of three parts, and to the last part – the repair (Benjamin, 2013). (This is like mixing up repairing a car and having it repaired, which is also not unusual.) My articles using the abbreviation OIR make it clear that the abbreviation refers to other-initiat*ion of* repair (Skedsmo, 2020a, p. 533; 2020b, 1. Introduction).

Adhering to the next-turn proof procedure CA research generally holds an emic perspective, focusing on what the conversationalists themselves treat as a problem. Cases where the analyst asserts that an interlocutor is signaling trouble, but it is not picked up by anyone by providing a repair, are generally excluded from the core collection of cases (Dingemanse & Enfield, 2015; Schegloff, 2013). In most CA studies of conversational repair following the

next-turn proof procedure, there will therefore be no examples of OIORs or of (potential) repair-initiations without subsequent self-repairs. This might be a reason for treating the whole three-part sequence as an "other-initiated repair" instead of referring solely to the other-initiation of repair. To avoid these ambiguities this thesis attempts to be consistent in its reference to the various ways to signal trouble of perception or understanding as repair-initiations. The term repair-initiator is also often used about the practice employed to initiate repair (e.g., Drew, 1997; Egbert, 1996; Floyd, 2015; Hayashi & Hayano, 2013; Oloff, 2018; Schegloff, 2013; Seo & Koshik, 2010). The term can refer to both the practice and the person performing the repair-initiation, as it does in Svennevig (2008). In this study, repair-initiator will be used exclusively to refer to the *person* performing the repair-initiation (see e.g., Benjamin, 2013; Robinson, 2006).

One important insight from Schegloff et al. (1977) is that conversationalists demonstrate a preference for self-repair, meaning that the trouble-source utterer is also the one to repair their own utterances, and interlocutors facilitate for each other to do self-repairs over doing it for each other. Schegloff et al. (1977) briefly mention that there is also a preference for self-*initiation* of self-repair. As we see in this and other studies, OISRs occur regularly, but are then often marked by delay. Kendrick (2015a) shows how these (dispreferred) other-initiations regularly occur after around 0.7 seconds, as opposed to an average 0.1-0.3 second gap between turns.

Another insight from Schegloff et al. (1977) is that different formats of repair-initiations to varying degrees signal what was problematic about the trouble-source turn. This taxonomy of how strongly a repair-initiation refers to the problematic of the trouble-source placed along a continuum that will be referred to as the scale of *referential strength*.

2.5 Formats and referential strength of repair-initiations

One out of several valuable contributions from the Schegloff et al. (1977) paper, is the outline of a taxonomy of repair-initiation formats, along a scale of referential strength, where the strongest ones are the ones that to the largest degree frame or present the problematic part or aspect of the trouble-source turn (Dingemanse et al., 2014; Jefferson, 1972). This way the strongest, or most *restricted* (Dingemanse et al., 2016) repair-initiation gives the trouble-source utterer the most information about what was troublesome with the trouble-source turn (like e.g., "Did you say 'four' or 'core'?"). The weakest, or most *open* (Drew, 1997) formats

of repair-initiations (e.g., interjections like "Huh?" or an embodied repair-initiation) may do nothing more than signal that there is some kind of trouble with something that is uttered.

The weak-strong continuum may be perceived as contra-intuitive, as it can also be perceived as a "strength" to accomplish large operations with little effort. Schegloff (1987b) points out this ambiguity himself:

"Huh?" may seem fairly straightforward, a virtually pre-lexical grunt which constitutes the weakest of the repair initiations, or the strongest, depending on how you look at it "Weakest" in the sense that it displays the least grasp of the problematic utterance which is its target, and in the sense that it gives the least help to its recipient in locating what the trouble-source is, and what the trouble with it is. "Strongest" in the sense 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. Sitting quietly in your living room with your significant other and reading, you say "huh?" into the silence and they nonetheless know what you are up to and what you think; "I didn't say anything," they will say. (pp. 505-506)

The term "open-class" repair-initiation (OCRI) was coined by Drew (1997), referring to "weak" repair-initiations, treating the whole trouble-source turn as problematic (recurrently occurring when the topic of a conversation has been changed). The term implies an opposite "closed-class", though Drew (1997) never mentions it. Schegloff adopts the term "open-class" (Schegloff, 1997a, p. 514; 2000a, p. 55, note 43; 2000b, p. 223; 2002, p. 322) but problematizes it (Schegloff, 2004, p. 143, note 1), claiming that the term implies a class of "restricted" repair-initiations, that would fit repair-requests (like "who?" or "when?") but not the ones offering a candidate understanding or candidate perception. The scale of referential strength is recurrently presented as a continuum, and not a taxonomy of distinctive categories (Griffiths et al., 2015; Kitzinger, 2012; Manrique & Enfield, 2015; Schegloff, 1997a) and it is hence problematic to imply partitions or absolute categories along the scale. Dingemanse and Enfield (2015/2016), however, use "open" about the repair-initiations treating the whole trouble-source turn as problematic and apply the term "restricted" repair-initiations when referring

to all repair-initiating requests and offers that to some degree frame or present what was problematic about the trouble-source turn. Such distinct categories are useful for investigating distribution and making numeric breakdowns. This thesis follows this latter choice of terminology, for the same reasons, and applies an imaginary border between open and restricted OISRs like in the coding schema developed for, and used in the comparative and collaborative study in Dingemanse and Enfield (2015/2016) where OISR findings from ten different languages are presented and compared (Dingemanse et al., 2016). In their articles, the different formats of repair-initiations are divided into restricted and open formats, and numerical breakdowns of their distribution are provided. While the different types of OCRIs generally treat the whole trouble-source turn as problematic, this does not mean that that specific trouble-source turn will consequently be re-done in a verbatim manner. The utterer of the troublesource turn is free to make a more or less qualified guess about what kind of problem the repair-initiation is targeting. Often, the adjacency (the temporal proximity) of the production of the repair-initiation provides useful hints or cues about what the trouble is about. There are also aspects of politeness and facework (Goffman, 1967) involved. Conversationalists have shown a preference for other-initiating repair in the most efficient ways, but also to avoid or reduce risks of embarrassment. It is often less face-threatening to claim not to have perceived the trouble-source turn and hence blame the physical conditions, than to admit trouble of understanding, which might indicate incompetence on either side (Svennevig, 2008).

The following subsections will present a selection of different formats and subtypes of repairinitiation along such a scale, and will start at the strongest, or more restricted end.

2.5.1 Restricted repair-initiations

The restricted formats of repair-initiation presented here will be divided into offers and requests. The offers consist of suggestions for what was said or meant by the other and hence merely call for confirmation or disconfirmation. The requests are often designed with content question words (e.g., "who" or "when") and call for specification or clarification (Floyd, 2015) of what was said or implied.

2.5.1.1 Candidate offer repair-initiations

At the strong end of the scale of referential strength, we find repair-initiations where the recipient (B) of the trouble-source turn provides a candidate for what the trouble-source utterer

(A) said or meant. It is often ambiguous whether the trouble is one of perception or one of understanding, hence it might be opaque whether a particular case of repair-initiation should be treated as an offer of candidate understanding or a candidate perception. Either way B suggests a possible candidate for A to confirm or disconfirm, as in Extract 2.

Extract 2: Candidate offer repair-initiation. Originally Extract 39 [SPC: SP] (Schegloff et al., 1977, p. 368)

1. A: Why did I turn out this way. Trouble-source 2. B: \rightarrow You mean homosexual? Repair-initiation 3. A: Yes. Self-repair

Candidate offer repair-initiations can be done with full or partial other-repeats, replacements of elements of the trouble-source utterance, continuation, meaning that B proffers additional increments bringing A's utterance closer to a completion, insertion of new elements into the trouble-source turn etc. (Kendrick, 2015b). Candidate offer repair-initiations can also be prefaced with expressions like "You mean..." etc. Candidate offer repair-initiations are also referred to as "understanding checks" (Ekberg, 2012, p. 381; Manrique & Enfield, 2015, p. 18; Schegloff, 2000b, p. 241) and based on their high frequency, Levinson (2015) suggests that there is a preference for employing them to solve trouble in communication. Candidate offer repair-initiations are, however, not always available as repair-initiations, and they possess certain features that in several cases make them less attractive. By producing a candidate offer repair-initiation, B not only claims to have perceived (parts of) A's utterance, but the candidate offer effectively demonstrates B's understanding of it. B hence needs to have some grasp of what A said to be able to use this format. B's understanding might, however, be considered wrong, and producing a candidate offer is therefore "risky business" (Antaki, 2012, p. 531). An offer, or suggestion in general can sometimes be experienced as a request or even a demand, which is also the case with candidate offer repair-initiations. Depending on context, epistemic and/or hierarchic asymmetries between A and B and the prosodic features of the utterance, cases of candidate offer repair-initiation can conflate with the domain of OIOR.

Even though errors and other-corrections are often excluded from the domain of conversational repair, both Kendrick (2015b) and Albert and de Ruiter (2018) discuss OIORs and point out that cases where B suggests a candidate to what A (might have) said or meant can be ambiguous in whether they are to be seen as request for (dis)confirmations or if they are corrections. These situations are examples of where the next-turn proof procedure can be helpful to avoid speculations about the interlocutors' intentions and instead look at the next turn to

see how the repair-initiation is responded upon. A candidate offer with a final intonation instead of a questioning intonation, will often be treated as an OIOR and not a call for confirmation or disconfirmation (Kendrick, 2015b). The next subsection describes *requests for specification*.

2.5.1.2 Requests for specification

A repair-initiation designed as a request for specification often contains category specific question words like "which", "who", "when" or "where" (Dingemanse et al., 2016). By producing a request-type repair-initiation, B demonstrates a certain grasp of A's utterance, and locates the problematic part quite accurately, as in Extract 3.

Extract 3: Request type repair-initiation. Originally Extract 28 [TG:27] (Schegloff et al., 1977, p. 378) (Shortened by me.)

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1. A: Oh Sibbie's sistuh hadda ba:by bo:way. Trouble-source 2. B: \rightarrow Who? Repair-initiation 3. A: Sibbie's sister. Self-repair
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Unlike unspecific questions word like "what", the category-specific ones can direct the trouble-source utterer's attention to what was problematic with the utterance. Other practices for soliciting specifications are alternative questions and partial repeats. Alternative questions (Koshik, 2005) have been defined as "closely akin to restricted repair initiations" (Dingemanse et al., 2016, p. 38) and are designed as a polar question which calls for the utterer of the trouble-source turn to determine which one of two (or more) alternatives is to be considered correct ("Do you mean X or Y?"). We could of course also say that they are offers of two candidate understandings, but a major feature of the practice is a distinct call for specification between alternatives. In this thesis alternative questions are therefore included in the category of restricted repair-initiation, as requests for specification.

Other vehicles for requesting a specification are partial other-repeats (see Section 2.6), repeating the perceived part leaving space open for the problematic part ("Cucumber, tomatoes and...?"). Without the question-intonation they can be perceived as receipts of understanding (Müller, 1996; Uhmann, 1996), demonstrating both perception and comprehension. It is a recurring circumstance that most formats associated with OISR also are employed for performing actions other than OISR (Schegloff, 1997a; see Section 2.7.4). The question-word format can also occur in OISR-resembling utterances performing other actions, like a go-ahead signal (Greer et al., 2009) as if the first line in Extract 3 (above) was "Guess who's pregnant.".

Having discussed restricted repair-initiations, we will now turn to those that treat the whole trouble-source turn as problematic.

2.5.2 Open-class repair-initiations

Open-class repair-initiations (OCRIs) come in many shapes. Interjections like "huh" or questions-words like "what" are the most obvious examples, but there are many ways of other-initiating self-repair without assisting A in locating the problem. The following subsection presents three central subtypes of OCRIs.

2.5.2.1 Formulaic OCRIs

Apology based expressions like "sorry", "excuse me" and "(I beg your) pardon" are found in limited numbers in informal face-to-face conversation in languages like Italian (Rossi, 2015), German (Egbert, 1996), Siwu (Dingemanse, 2015) and English (Kendrick, 2015b). Of the ten languages investigated in Dingemanse and Enfield (2015/2016) these expressions were not found at all in seven of the languages (Baranova, 2015; Blythe, 2015; Enfield, 2015; Floyd, 2015; Gisladottir, 2015; Levinson, 2015; Manrique, 2016) nor were they in the NTS corpus (Skedsmo, 2020b). This paucity may be due to a matter of genre. In a study on Finnish, the expression anteeksi ("sorry") was found to be the most frequent among hard of hearing people visiting the hearing clinic, while it was among the least used by the same people in their homes (Laakso et al., 2019, p. 629). Formulaic OCRIs, and also explicit requests for repetition are found in relatively high numbers in maritime ship-to-ship communication (Boström, 2021). It is opaque where to draw a meaningful line between these apology-based expressions, other expressions like "come again?", "you said..?" and the rather polite, but explicit repair-initiation phrases like "I couldn't hear you." and "What did you say?". However, they share the same "openness", and as long as no threat or sarcasm is signaled, they all indicate that B welcomes a verbatim repeat of A's trouble-source turn.

2.5.2.2 Question-word and interjection formatted OCRIs

The coding schema in the special issue of *Open Linguistics* (Dingemanse et al., 2016) distinguishes between repair-initiations produced with lexicalized words (like "what") and those produced with non-lexicalized interjections (like "huh"). This difference seems to be more strongly related to what is defined as a word than to any actual functional difference or diverging distribution of them. Still, the distinction that the interjection-versions in several languages seems to be more frequent among the first language (L1) users than both the apology

based and the question-word based OCRIs together (Baranova, 2015; Blythe, 2015; Dingemanse, 2015; Enfield, 2015; Floyd, 2015; Gisladottir, 2015; Kendrick, 2015b; Levinson, 2015; Rossi, 2015) might be useful for example for someone teaching a foreign or second language (L2). A distinction between a question-word ("what") and an interjection ("huh") in spoken language can be a matter of pronunciation or it can call for a discussion of what constitutes a word. In NTS the sign WHAT can be realized with a manual part and an oral part, along with different other non-manual markers, such as raised or lowered eyebrows, movements of the head etc. While it is challenging to imagine examples of WHAT completely without non-manual markers (except when perceived as tactile signing) there are many examples of repair-initiations without the manual part, where only the mouthing resembling hva ("what") and other non-manual markers are employed. In this study, a question-word OCRI means that a sign like WHAT is used. As movements by the mouth, face and rest of the body are considered non-manual, repair-initiations solely expressed with these resources are considered non-manual or embodied OCRIs.

2.5.2.3 Embodied OCRIs

As CA has turned from focusing solely on (transcripts of) audio recordings to an increased use of video-recordings there has been an enhanced interest in embodied conduct (Nevile, 2015). Even though the concept of embodiment in communication is problematic, due to the inevitable fact that all communication and indeed all human conduct, even cognition, is embodied (Allwood, 2008), the notion of embodied conduct in CA – in a spoken language – is regularly understood as communicative conduct expressed by other means than speech. This will include gestures, facial expressions, movement etc. (Haddington et al., 2013; Mondada, 2016). This distinction between modalities is less applicable for signed languages (Esmail, 2008), and the discussion of sign vs. gesture has been highly politicized (Shaw, 2018). The fact that communication in signed languages is all-visual calls for alternative dichotomies such as lexicalized/non-lexicalized signals instead of classical distinctions like verbal/non-verbal or linguistic/paralinguistic/extralinguistic. In the present study, following the tradition most common in CA, the concept *embodied conduct* will be used for communicative behavior that is not realized as manual, lexicalized signs, regardless of whether I as an analyst assume the conduct to be intentionally communicative or not (Allwood, 2002).

It has been shown that signaling trouble of perception or understanding without producing sound is quite possible in face-to-face spoken language interaction (Egbert, 1996; Mortensen,

2012, 2016; Oloff, 2018; Seo & Koshik, 2010; Sikveland & Ogden, 2012). Also in signed languages facial expressions like raising or lowering the eyebrows (Crasborn, 2006), head pokes (Oloff, 2018), forward leans (Rasmussen, 2014), head tilts (up or down) or sideways turning (Sze, 2011), and other embodied actions (and combinations of these) can act as OCRIs with no other indication of what the problematic is than the temporal adjacency of the action. These kinds of self-sufficient embodied OCRIs have also been found in spoken language interaction in L2 classrooms, following the same sequential organization and having similar consequences as spoken OCRIs (Seo & Koshik, 2010). Mutual gaze has also been found to play a central role in repair-initiation. The German formulaic repair-initiation *bitte* ("pardon") is more common in telephone conversations, where there is no mutual gaze, and less common in face-to-face interaction. Egbert (1996) found that when *bitte* occurred as a repair-initiation outside the domain of telephone conversation, it was exclusively when the interactants did not have mutual gaze, and this repair-initiation led to the establishment of mutual gaze.

Sudden establishment of mutual gaze has also proved to be a powerful tool for capturing attention (Wel et al., 2018), and Girard-Groeber (2020) suggest that it has the function of an OCRI among deaf and hard of hearing students in spoken language classrooms.

In signed language conversation B will in most cases already have their gaze directed at A when the "repair-initiation opportunity space" (Schegloff et al., 1977, p. 375, my removal of capitalization) occurs. Not looking will predominantly imply not perceiving the utterance (except in some cases where it seems like peripheral vision is employed, Skedsmo, in press).

A central finding in Manrique's studies of OISR in LSA is the *freeze-look repair-initiation* (Manrique, 2016, 2017; Manrique & Enfield, 2015). This repair-initiation is performed by B keeping their gaze fixed at A after the completion of the trouble-source utterance, while keeping their body and face in a frozen pose, as if not acknowledging that A's utterance is completed. Despite Clift (2016, p. 267) referring to the freeze-look response as a "particular local practice" it is found also in NTS (Skedsmo, 2020a, 2020b), in Swiss German Sign Language (Girard-Groeber, 2014, 2018, 2020), and in *cross signing* (deaf signers communicating without knowing each other's national signed language, Byun et al., 2018). The freeze-look repair-initiation is also found in spoken Icelandic (Bédi, 2019, 2020) and in spoken multilingual/L2 conversation (Oloff, 2018). This notable absence of action has several similarities with a general suspension of next turn (Manrique & Enfield, 2015), which has long been known to provide A with an opportunity to self-initiate self-repair (Schegloff et al., 1977). It

is crucial to highlight that even if the act of suspension – the creation of a gap – allows for self-repair it does not necessarily mean that B deliberately halts the progress to create an opportunity for A to self-repair (Kendrick, 2015a). As already mentioned, CA normally does not consider intentions (Albert & de Ruiter, 2018; Haugh, 2009; Heritage, 1990; Schegloff, 1992c; Sidnell, 2010; Sidnell & Stivers, 2012; see Section 2.7.5 for a discussion about the notions 'design' and 'intent'). We cannot know if B intentionally signals trouble by performing a freeze-look repair-initiation, or if this behavior is merely a physical manifestation of trouble. What we do know is that in the languages investigated, this behavior is regularly followed by A performing repetition, altering the utterance or by other means producing a self-repair. The freeze-look repair-initiation belongs at the far weak or open end of the scale of referential strength (Manrique & Enfield, 2015).

The coding schema from the comparative study in *Open Linguistics* (Dingemanse et al., 2016) also includes the format *external* repair. External repair-initiations are defined as addressing something not being uttered in the trouble-source turn, like a name not mentioned (e.g., due to the use of pronouns like "him" or "her"). Such repairs are here included among the restricted repair-initiations. The reason for this is that defining a question as an external question necessarily requires an outside perspective (what Pike, 2015 [1954] refers to as an *etic* viewpoint), defining what was "actually" said, instead of focusing on what the conversationalists themselves treat as being said, understood and perceived.

Many repair-initiations are designed in ways that involve elements where the repair initiator repeats what the other said. The next section provides a brief account of other-repeats, which are found across several formats and subtypes of repair-initiations.

2.6 Note on repair-initiations containing other-repeats

It is not uncommon that a repair-initiation contains a partial or total other-repeat. To perform an other-repeat B must have perceived at least parts of the trouble-source turn. Other-repeats occur across different formats of repair-initiation, as in combinations with candidate offers, requests for specification combined with question words, ("We're going to visit *who*?" or "You bought *what*?"). Other repeats demonstrate what B has perceived, but not necessarily what B has understood. It is also worth noting that a total, verbatim other-repeat does not provide information of which part of the trouble-source utterance that was problematic, and in-

trinsically constitutes an OCRI, unless certain parts of B's other-repeat are marked by prosodic features (Robinson & Kevoe-Feldman, 2010; Schegloff, 1997a; Walker & Benjamin, 2017).

As such, repair-initiations in the form of total, verbatim other-repeats will often have the function of being candidate-offers, calling for (dis)confirmation, while repair-initiations designed as partial other-repeats demonstrate what the recipient has perceived and by exclusion show what is missing or uncertain.

As demonstrated, studies of conversational repair have developed a number of categories and parameters for describing these rather mundane practices of handling communicative trouble. The following section will account for a limited selection of the numerous more specific distinctions made, and a few ambiguities in the established theoretical framework. The selection of distinctions, elaborations and ambiguities was made in accordance with their relevance to this study.

2.7 Further distinctions, elaborations, and ambiguities

This section will highlight a few of the numerous approaches to and elaborations of conversational repair that have been influential for this thesis. It will look at different levels and sorts of trouble in conversation, cases where the practices of OISR seemingly are employed to achieve other actions than to initiate self-repair, the different sequential positions in which repair-initiations can occur, and highlight some ambiguities concerning the participation framework of certain kinds of repair.

2.7.1 "What seems to be the problem?"

The initial definition of conversational repair from Schegloff et al. (1977) was as practices that were employed to solve "problems in speaking, hearing, and understanding" (p. 361). For signed languages, this would be *problems of signing, seeing and understanding*, while a modality neutral version could be *problems of production, perception and understanding* (Manrique, 2017). The first of the three; problems of production (speaking/signing) applies to such cases where utterances "don't come out right" or when they totally or partially do not come out at all. Trouble of production can be conceptually confusing in a tree-in-the-forest way. If the utterance is not treated as a problem, it is per se unproblematic. For a difficulty with production to constitute conversational trouble, it must be treated as problematic by the utterer (monitoring their own production) or by a recipient. Trouble with production is hence

also related to reception, just like trouble with perception and understanding (see also Section 2.7.3 about trouble related to acceptability).

Trouble with perception and understanding, experienced by the addressee as trouble with reception, are conceptually less problematic, even though it can sometimes be impossible to discriminate between different kinds of reception trouble.

Troubles with reception can roughly be divided in two – the rather mechanical trouble of hearing/seeing/perceiving and the more cognitive kind of trouble related to understanding, which can span from not recognizing the signals (words/signs/gestures) to trouble sorting out the relevance of an utterance to the here-and-now context, previous context, and hence as trouble deciphering what the utterer is using these particular signals for. This is, as will be shown in Section 2.7.2, more complex than what the two words "perception" and "understanding" would indicate. Trouble of production, like those targeted by an SISR, where the utterer halts the progression of an utterance to modify or replace already produced parts of the utterance can be a case of the utterer anticipating reception trouble, and hence pre-empting (Svennevig et al., 2019) to avoid problems of understanding; sometimes by explicitly cancelling or devaluating what was just said, or by adding alterations with or without prosodic or gestural markers. This can be done within the same turn as in Extract 4, or an SISR can be made in a third turn (Schegloff, 1997b), after a fitted response, as in Extract 5:

Extract 4: SISR within same turn. Originally Extract 4 [GTS:1:2:11] (Schegloff et al., 1977, p. 363)

1. A: Sure enough ten minutes later the bell r- the doorbell rang...

Extract 5: Third turn SISR. Originally Extract 1 [SBL 1:1:12:10] (Schegloff, 1997b, p. 32)

- 1. A: hhh And he's going to make his own paintings, Trouble-source
- 2. B: Mm Hmmm Adequ

Adequate response

3.A: And- or I mean his own frames.

3rd turn self-repair

4.B: Yeah

As we see from these examples, there is nothing unacceptable with any of the initial versions. The SISR in Extract 4 modifies the level of formality and precision while the third turn SISR in Extract 5 changes a factual issue or replaces an already accepted referent with another referent. By looking at these SISRs as practices to avoid misunderstanding (Schegloff, 1987b) or trouble of understanding by the other, it becomes evident that the participation framework of an OISR or an SISR is not about who, knowingly or unknowingly is *having* the trouble, as in

who is misunderstanding, but strictly about who *initiates* the repair, and who *performs* the repair.

When investigating other-repairs, we occasionally find SIORs, like when an addresser is expressing trouble uttering a word and appeals for assistance from the recipient(s), or from a ratified recipient acting as a broker (Greer, 2015). In Extract 6, B provides an overlapping other-repair after A has explicitly announced trouble, which is treated as an implicit appeal for, or at least an allowance for assistance.

Extract 6: SIOR. Originally Extract 13 [BC:Green:88] (Schegloff et al., 1977, p. 364)

```
1. A: He had dis uh Mistuh W- whatever
2. k- I cant' think of his
3. first name, Watts on, the and repair-initiation
4. one thet wrote [that piece]
5. B: [Dan Watts] Other-repair
```

In Extract 6, A's turn (lines 1-4) contains both the trouble-source and a repair-initiation, applying for help from B. B's response (5) is a self-initiated other-repair. Even though Extract 6 is presented as an example of *conversational* repair, we see that A actually does not display trouble of the physical act of speaking, but rather trouble of remembering, and hence trouble more related to the cognition necessary to provide the utterances with the desired content. From this we can see that in this pioneering paper (Schegloff et al., 1977) there is not necessarily a clear-cut distinction between trouble related to the production of utterances and trouble with memory. The same can be said about trouble with reception in conversation. Trouble of understanding can be (announced as, or treated as) a recipient having trouble with a specific expression, in other words, some sort of "linguistic problem", while the trouble can naturally also be about knowledge or the cognitive capacity of that person in that particular situation. Albert and de Ruiter (2018) address how CA and cognitive sciences conflate in their paper "Repair: The interface between interaction and cognition".

Research on conversational repair seemingly has an established consensus that anything can become a trouble-source (Schegloff et al., 1977) and that there appears to be a general independence between the design of the OISR and the various kinds of perception or comprehension problem they target (Blythe, 2015; Dingemanse et al., 2015; Drew, 1997; Hayashi et al., 2011; Schegloff, 1987b, 1991a; Svennevig, 2008). Sidnell (2010) calls this "the other-initi-

ated repair problem" (p. 18). Also, trouble is not always attended to. Interlocutors that experience trouble can choose a *let it pass* strategy (Firth, 1996) and hope that the problematic eventually will become clearer. This is also the case with errors. Schegloff et al. (1977) note that "[s]ome 'errors' are never repaired, even though they are 'ripe repairables'"(p. 373).

There is, as mentioned in Section 2.5, a preference for addressing trouble of understanding as if it was trouble of perception, as it is considered less face-threatening to admit to not having heard or seen what was said than to confess trouble of understanding (Svennevig, 2008). Signaling that the trouble-source utterance was insufficiently perceived, is of course also less threatening toward the utterer to than to claim that it was unintelligible. This preference for "try[ing] the least complicated and costly remedy" first (Pomerantz, 1985, p. 156) seems to be conventionalized into the employment of conversational repair, so that trouble-source utterers recurrently provide self-repairs as explanation or rephrasing also when the repair-initiation only indicates trouble of perception (Svennevig, 2008). This shows that quite often the repair-initiation is not clear about what it targets, and trouble-source utterers are hence not always informed about what kind, or level, of trouble they are up against.

2.7.2 Trouble on what level?

The Austin/Clark ladder of joint action (Clark, 1996) is a model consisting of a four-level taxonomy based on Austin's (1962) levels of speech acts and how communication is dependent on joint actions of the speaker and the addressee. Dingemanse, Blythe and Dirksmeyer (2014) employ an inverted version of this model to categorize how different levels of (trouble of) perception and understanding are signaled or demonstrated by the way the repair-initiation is designed and how the subsequent self-repair responds to it.

Let us imagine a situation where A has opened the hood of B's car, trying to help figuring out why the battery is not charging, and A, leaning over toward the engine, asks B "Do you have a rectifier?"

Level one of the Austin/Clark ladder is about B perceiving the signals coming from A. Trouble at this level could, in its most extreme version, mean that B is not even aware of being addressed, which would probably not engender an OISR or any other response at all. (It may, however, lead to A producing an SISR, by repeating or near-repeating the utterance - probably after a summons to capture B's attention). If B is aware of being talked to, but does not

perceive the communicative signals, the whole utterance is problematic, and the only available repair-initiations are OCRIs. These can be informal ("Huh?") or more formal ("I am sorry. What were you saying?"). If the trouble of perceiving the signals only applies to parts of the utterance, the repair-initiation can include other-repetition of the perceived parts, like for example, "Do I have... what?"

Level two is about B both perceiving the signals from A and *identifying* them. Trouble on this identification-level is also about perception. B is perceiving that signals are produced but is not able to identify which ones they are. Repair-initiations on this identification-level, depending on which part of the utterance was not identified, could be designed as a candidate perception, like "Do I have *electric fire*?". The possibility to include other-repeats or other cues to A does not automatically mean that B will use it. OCRIs like "Huh?", or partial other-repeats like "Do I have *what*?" can also be used.

The third level is about B perceiving, identifying, and *recognizing* the signals. To continue the example above, this would imply that B both perceives being talked to, identifies the sounds, signs, gestures or other communicative signals being used by the other *and* recognizes the word "rectifier" by knowing what it refers to. (But of course, does not necessarily fully understand how it works or what it does.) As all signals are identified, trouble at the recognition-level would allow for repair-initiations other-repeating the problematic parts, like "What do you mean *rectifier*?"

The fourth and highest level of the Austin/Clark ladder is about not only perceiving and recognizing the signals used by the other, or understanding *what* the addresser says, but also understanding what A is *doing* by uttering this question. For B to be able to respond adequately to A's question "Do you have rectifier?" it is not enough to know what a rectifier is. B must relate the question to some kind of situated action (Vera & Simon, 1993), and decide if it is to be treated as a mere request for information, like if there is a (separate) rectifier in the car or about its location, or if it is a request for the addressee to hand the addresser a (new) rectifier, or if it is a presequence (Schegloff, 1988b) to an offer to be given one. Trouble at this action-level will be about understanding – *why*, or *for what action* B signals what is signaled (Dingemanse et al., 2014, pp. 8-9). All kinds of repair-initiation formats can be employed for this kind of trouble. Other-repeats can be full, verbatim repeats, which target the whole utterance as a problem, just like other OCRIs, like "Huh?". They can halt the progression of the

conversation by directly addressing the problem with an alternative question like in "Do you mean a spare one or if the car has one?" or simply "Why would you ask that?".

The Austin/Clark ladder adds useful perspectives to the study of OISR sequences, by offering means of analyzing how the conversationalists display perception and understanding on different levels. It is for example not possible to other-repeat what is not perceived, and it is difficult to successfully paraphrase what is not understood. The ladder thus offers "downward evidence" (Clark, 1996, pp. 148-153) meaning that once a higher level is demonstrated, the lower levels are evidently also accomplished. Conversationalists, however, as we have seen, do not always other-initiate repair adhering to the "strongest initiator rule" (Clark & Schaefer, 1987, p. 23), by consequently providing repair-initiations designed to locate what is problematic in the trouble-source. They can also admit to the principle of choosing the least costly and face-threatening (Goffman, 1967) practices for clearing the trouble (Clark & Brennan, 1991; Pomerantz, 1985; Svennevig, 2008) striving to generate the least collaborative effort (Dingemanse et al., 2015). Hence, an addressee who experiences to have full perception, identification, and recognition of what is signaled but is having trouble figuring out what the addresser is doing with his utterance, might still recourse to a brief "Huh?". Because of these two, sometimes divergent principles along with other inconsistencies in real conversational data, it is often difficult or impossible both for the conversationalists and for analysts to decide what kind of communication problem a given case represents, is announced as or even treated as (Enfield et al., 2013).

In some cases, a "Huh?" or another format of repair-initiation is not even an expression of trouble of perception or understanding at all, but rather a signal of newsworthiness, disalignment or trouble of acceptability.

2.7.3 An acceptance of acceptability?

Despite the initial, and still upheld definition of conversational repair as a vehicle for resolving trouble of production, perception and understanding, several of the examples of other-initiations of self-repair presented in Schegloff et al. (1977) give rather clear indications that the trouble is not related to any of these three categories, but rather to acceptability, disagreement or other forms of disalignment. Extract 7 and 8 provide examples of this.

Extract 7: OISR practice treated as trouble of acceptability Originally Extract 62 [Crandall 2-22:20] (Schegloff et al., 1977, p. 377).

Extract 8: OISR practice treated as signalling disalignment. Originally Extract 2 in Footnote 26 [SPC:92] (Schegloff et al., 1977, p. 377).

```
    B: Why don't you want to tell it to me.
    A: I don't know why. Trouble-source
    B: → You don't know? Repair-initiation
    A: No I don't. I'm sorry. Self-repair and apology
```

In Extract 7, B seems to have trouble accepting the male/gender neutral term⁵ "waiter" for a female. A's apology in the self-repair (3) and B's compliment "that's better" (4) support this interpretation of the exchange. These examples contribute to one of the main theses of Schegloff et al. (1977), by demonstrating the preference for B facilitating a self-repair, also when an other-repair is more available, and technically more efficient. In Extract 8 the repair-initiation (3) has the design of a questioning other-repeat. From the transcript it is not clear whether it signals trouble of perception/understanding or if it, prosodically, signals trouble of acceptability. A's next turn (4), however, contains an apology, which indicates that A treats B's other-repeat as related to acceptability.

Problematizing the category *speaking* in "trouble of speaking, hearing and understanding" (Schegloff et al., 1977), Svennevig (2008) suggest replacing *speaking* with *acceptability*. That is an intriguing move in at least two manners. Firstly, it turns the initial *productive* perspective of these kinds of trouble around to be about self-monitoring and thus about *reception*, like trouble of perception and understanding. Trouble of production in an SISR becomes trouble of accepting what is perceived from self-monitoring. From this perspective *all* conversational repair is about reception in the way that both the utterer and the recipient can experience, and act on trouble with what was just uttered, both by oneself (SISR) and by the other (SIOR, OIOR and OISR). Secondly, including acceptability as a possible reason for an utterance to become a trouble-source, expands the scope of conversational repair to also include the cases

versation this extract is from is even older.

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⁵ Regarding gender specific job titles and gender neutrality; note that the article is from 1977, and the actual con-

where OISR practices are treated as expressing disagreement, disalignment etc. (Benjamin, 2013; Benjamin & Walker, 2013; Pomerantz, 1984) and uncovers a preference for interlocutors to initially target unacceptable turns as if they were trouble of perception, which is less socially complicated (Svennevig, 2008; Wisbey, 2010). Trouble-source utterers are of course familiar with this preference. Often, OISR practices are treated as signaling disagreement (Schegloff et al., 1977), and an OISR can constitute a second chance for A to reconstruct the trouble-source utterance, making it more acceptable (Skedsmo, 2020b).

The question of whether or not signaling trouble of acceptability should be regarded as a part of the system of conversational repair has been discussed (Kendrick, 2015b). One reason to exclude acceptability as related to conversational repair would be that acceptability is essentially not about solving problems in achieving mutual understanding. As Benjamin (2013) argues; if recipients can assess the prior utterance as wrong or unacceptable and simultaneously demonstrate that they already have a sufficient grasp of it, the conversation can progress instead. Explicitly treating utterances as erroneous or unacceptable is dispreferred in conversation, though more adequate in asymmetric learning situations (Macbeth, 2004; McHoul, 1990). Sometimes, also outside classrooms and other educational contexts, acceptability problems are, however, addressed. They are not always exposed by explicit corrections (OIOR), but they can also be "smuggled through" in an embedded correction, as Jefferson (1974) demonstrates in Extract 9, which is between a salesperson and a customer at a hardware store:

Extract 9: Embedded correction "smuggled through". Originally Extract 15 [GJ:FN] (Jefferson, 1974, p. 92). (Shortened by me.)

1. A: Mm, the wales are wider apart than that. Trouble-source
2. B: Okay, let me see if I can find one with wider threads. Other-repair

Trouble of acceptability of an utterance, treating it as wrong or inappropriate can also be addressed employing OISR practices, with the same formats as for trouble of hearing or understanding. In such cases, even archaic, formulaic repair-initiation expressions like "I beg your pardon" can be resuscitated, and it is sometimes impossible to determine what kind of trouble is targeted, and not even always possible to tell by the next turn how it is understood, as the self-repair is sometimes "mixed" (Benjamin, 2013, p. 36; Skedsmo, 2020a) containing both a repeat and an apology or a raised level of politeness. Drew (1997) demonstrates that these cases can be ambiguous also for the interactionists themselves:

Extract 10: Formulaic OISR treated as acceptability-related. Originally in footnote 15 [Gatt:A:218:751] (Drew, 1997, pp. 95-96)

1. A: (Pull up) the ro:pe with thi:s do:wn	Trouble-source
2. (0.9)	
3. B: → I beg your pardon	Repair-initiation 1
4. (.)	
5. A: Please	Self-repair 1
6. (1.1)	
7. B: → No: I don't understand what vou're saving=what	Repair-initiation 2

In the domain of SISR, trouble of acceptability is doubtlessly relevant – maybe it is even the most relevant kind of trouble. In OISR, trouble of acceptability can be addressed with the same formats as when there is trouble of perception or understanding (Griffiths et al., 2015). Prosodic or embodied features can signal whether it is about perception/understanding or about acceptability (Benjamin & Walker, 2013; Rossi, 2015) and the next-turn proof procedure will often give the analyst (and the conversationalists themselves) evidence of how they were understood. An inclusion of acceptability related trouble in investigations of OISR is, however, described as problematic by Kendrick (2015b) since addressing trouble of acceptability, signaling disagreement etc. is not a primary function of OISR. As we shall see in the next subsection, the OISR practice can be a vehicle for a range of actions other than addressing trouble of perception or understanding. Targeting trouble of acceptability in an explicit, accountable way is face-threatening both to the trouble-source utterer, and to the one positioning oneself as the critical or more knowledgeable. "[I]t is precisely because the practices can be understood as *not* being addressed to such matters that they are so suitable" (Kendrick, 2015b, p. 182, original emphasis). This indicates some kind of boundary between what we might call "true" OISRs and pseudo OISRs.

2.7.4 Pseudo repair-initiation

As we have seen above, the format of OISR can be employed to express trouble of acceptability, signal disagreement or disaligning with the utterer of the previous turn, without recoursing to an explicit, accountable practice. Another action that can be preformed by the same practices is a *question-formatted news-receipt* ("What?", "Huh?") serving the same function as a "Really?", marking the recipient's astonishment or the newsworthiness of the prior (or still ongoing) utterance (Dingemanse, 2015). These are ordinarily not responded to with self-repairs as repetition or a modification of the utterance, but with confirmation, or an acknowledgment of the newsworthiness (e.g., "Yes, I know!") or nothing at all. The same

kinds of OCRI practices and other more restricted formats can also be used for disaligning actions, like sarcasms, as in the example from Kendrick (2015b, p. 182).

Extract 11: Pseudo OISR disaligning. Originally Extract 22 [RCE01 Cigarette 02:26] (Kendrick, 2015b, p. 182)

```
    (It's a) nice place to work though
    (0.9)
    B: → °Ehhh° what.=the concrete jungle,
    (0.2)
    A: Aww::::.=I think it's quite pretty
    It has ree:ds.
```

The OISR format can also be used for humorous contributions to conversations and can be treated by the next turn as mere jokes (acknowledged as funny or not) or responded to by providing self-repair – or both. Schegloff (1997a) provides evidence for such "boundary cases" and gives examples of other practices, resembling OISR, but soliciting other actions than self-repair. An upwards-intonated "excuse me" can both serve as a repair-initiation and a "proper" apology for a sneeze (Schegloff, 2007), and an upwards "Huh?" can function as a go-ahead signal (Greer et al., 2009). Formats for OISR can also come in handy when confronted with unpleasant questions (like e.g., "Did you finish your homework?") as a tool for buying time (Foster & Ohta, 2005; Power R. J & Dal Martello M, 1986; Silverman, 2006). In the present study, as in the comparative study of OISR in Dingemanse and Enfield (2015/2016), the next-turn proof procedure is applied. Only the cases where prior OISR practices are treated by the conversationalists as repair-initiations, by actually providing repair, are included among the core cases of OISR.

The next subsection will discuss next-turn proof and cases in which it can be challenging to consistently follow this principle.

2.7.5 Next-turn proof and other kinds of evidence

As repeatedly stated, CA regularly focuses on how the conversationalists themselves indicate or demonstrate their understanding of a turn by looking at how they respond to it, instead of speculating about the interlocutors' personal intentions (Haugh, 2009; Heritage, 1990; Schegloff, 1992c; Sidnell & Stivers, 2012). CA operates on a surface level (Albert & de Ruiter, 2018) and generally practices the next-turn proof procedure (Sacks et al., 1974) whereby the focus is on what the conversationalists treat the utterances as. Following the next-turn proof procedure, means strictly excluding "obvious" repair-initiations that are not attended to, or those that are cancelled by a display of delayed understanding, through a

change-of-state token (e.g., "Oh!") (Gudmundsen & Svennevig, 2020; Heritage, 1984; Koivisto, 2015) before the trouble-source utterer has performed a self-repair. On the other hand, a probable question-formatted news receipt (Dingemanse, 2015), like an astonished "What?", which is treated as a repair-initiation by another will be included in the core selection of repair-initiations (Dingemanse & Enfield, 2015). This rather rigid principle is crucial in the analysis of the freeze-look response, allowing a notable absence of action to constitute a repair-initiation, even though it could be claimed to be a mere gap in the conversation, allowing for SISR or a suspension of an OISR. As described in Section 2.5.2.3, the freeze-look response overwhelmingly leads to a self-repair, or it leads to an upgrade to an explicit repair-initiation (see Section 2.7.6), even if we cannot be certain whether or not this behavior is *intended* to function as a repair-initiation. We just know that it quite often does (Manrique & Enfield, 2015; Skedsmo, 2020b).

However inflexible the next-turn proof procedure appears, there are cases where CA studies discuss other features of the interaction as evidence and lets them outweigh the next-turn proof. In some analyses it seems that the *design* of a turn is more significant for its analysis than the effect this turn has on the subsequent turn. We find examples of this deviation in analyses and categorization of third and fourth position repairs (see Extracts 12 and 13 below).

The initial description of OISR (Schegloff et al., 1977) stated that virtually all other-initiations occur in the turn subsequent to the trouble-source turn. Hence some studies of OISR focus solely on these next-turn repair-initiations (NTRI), and give the impression that all OISRs are NTRIs (Drew, 1997; Levinson, 2007). Schegloff (2000b) abandoned the term NTRI, because repair-initiation also occur *after* next turn.

We have already seen in Section 2.4 that an SISR often occurs in the same turn as the trouble-source, or at the transition relevant place at the end of it, and that it can also occur after an adequate response, constituting a third turn repair. (The self-repair sometimes occurs later than in the third turn, but it is prompted by the response in position two (Schegloff, 1987b).) The example in Extract 5 shows that B's contribution is merely a back-channeling "Mm Hmmm", which (at least in its transcribed form, stripped of embodied behavior and interactional context) seems not to signal any trouble or disalignment. This analysis of the design of the "Mm Hmmm"-turn is what lead the analyst to interpret the self-repair in next turn as an SISR and not as an OISR. The repair is located subsequent to the initial turn, but belonging to the same

sequential position, as it merely constitutes a continuation of it. If the response is treated as inadequate, the trouble-source utterer may treat it as a *misunderstanding* (Schegloff, 1987b) which would make it a third position *repair* (Egbert, 1996; Ekberg, 2012; Kitzinger, 2012; Schegloff, 1992b, 2000b), as in Extract 12.

Extract 12: Third position repair. Originally Extract 1 [CDHQ, I, 52] (Schegloff, 1987b, p. 204)

```
    1. A: Which one::s are closed, an' which ones are open. Trouble-source
    2. B: ((pointing to map)) Most of 'em. This, this Inadequate
    3. [this, this response
    4. A: → [I don't mean on the shelters, I mean on the roads. 3<sup>rd</sup> pos. repair
    5. B: Oh! Change-of-state
```

Third position repairs (like in line 4 of Extract 12 above) are often "no"-prefaced, or by other means mark that A treats B's response (2, 3) as inadequate. Third position repairs are often followed by B producing a change-of-state token like "Oh!" (5) or signals it with an embodied act with similar effect. Third position repairs (as in Extract 12 above) are generally characterized as SISRs (Albert & de Ruiter, 2018; Badem-Korkmaz & Balaman, 2020; Egbert, 1996) even though they are indeed "prompted by the response" of the other (Schegloff, 1997b, p. 32), treating it as inadequate. It hence seems like the only difference between a self-repair generated by an OISR and a third position SISR is that the turn that prompts the third turn repairs bears no sign of being designed to – or *intended* to generate a repair. This is notable because of CA's claimed reluctancy toward considering intentions, and because it is problematic to separate assessing a turn's action by its design and the act of speculating about the utterer's intents. By strictly following the next-turn proof procedure, a third position repair could be considered an OISR, and not an SISR. Not because we suspect B of producing an intentional repair-initiation, but because the outcome in next turn evidently is a self-repair.

Another rarity, a fourth-position repair-initiation, is described by Schegloff as an infrequent kind of OISR (1992b, 2000b). These are not specifically relevant for this study of OISR in NTS, but the definition of them is. Fourth-position repair-initiations typically consist of both a change-of-state token, like "oh", and a repair-initiation. As such, the format characteristically takes the form of a change-of-state toke prefaced candidate offer, like "Oh, you mean X" (Schegloff, 2000b, p. 211) and occurs when B seems to realize some kind of misunderstanding or inadequacy in their up till then understanding of a previous utterance made by A. Consider Extract 13, which can be said to show both a third position repair and a fourth-position repair initiative.

Extract 13: Fourth position repair-initiation. Originally Extract [EAS, FN] (Schegloff, 1992b, p. 1321)

A: Loes, do you have a calendar, Trouble-source
 B: Yeah ((reaches for her desk calendar)) Inadequate response
 A:
 Do you have one that hangs on the wall? Third-position repair
 B:
 Oh you want one. Fourth-position repair-initiation
 A: Yeah

The fourth position repair-initiation (4) does not target the immediately prior turn in position three (3), but the first (1). These repairs are clearly initiated by someone other than the trouble-source utterer and are regularly referred to as other-initiations. This calls for some attention. The contribution in line 2 above – the affirmatory "Yeah" and the embodied act of B reaching for her own calendar – precedes the reformulation and specification (self-repair) in line 3, which according to a rigid interpretation of the next-turn proof procedure makes line 3 a third position repair, even though it is not no-prefaced.

Lines 3 and 4 are each *both* repair-initiations and self-repairs. Line 3 *both* addresses the inadequacy of the previous response (2) and provides a clarifying self-repair to A's question (1) stating that it was about something else. Line 4 *both* signals the now-understanding (Koivisto, 2015) and interrogates whether the initial request should have been interpreted as A requesting a calendar by producing a candidate offer repair-initiation.

In his critique of Searle's intentionalist approach to conversation for support of speech-act theory, Heritage (1990) points out two problems. One is that we cannot know other conversationalists' intentions. Another is that we are so trained in conversation that large parts of our communicative conduct is not driven by conscious strategies (Moerman, 1987) but of unconscious skills and intuitive conduct (Benner, 1984), guided by tacit knowledge (Polanyi, 1983). Hence the next-turn proof procedure serves as a tool for achieving an emic perspective and avoiding speculations about what the interlocutors are "really" doing. Still several researchers point out that the next-turn proof procedure has its fallacies, and does not always provide the analyst with sufficient information about the interlocutors' interpretations of each other's turns (see e.g., Coulter, 1983; Heritage, 2018; Lynch, 2011). CA is claimed to be "happily agnostic" about intentions (Heritage, 1990, p. 329), and thus interpretations and categorizations of actions and practices within CA are not always transparent and unambiguous.

Analyzing a turn in conversation in accordance with its subsequent uptake, in other words, by how it is responded upon, is a strictly effect-oriented approach. It is objective and descriptivist. Considering the design of an utterance implies a consideration of what such an utterance would (usually, or in particular contexts) be employed for. This kind of assessment overlaps with – if not coincides with – considering the assumed intention of the utterer. Even though it is probably impossible to do CA completely without such assessments, it is appropriate to ask why the consideration of turn-design and assumed intention is relevant for categorizing these cases.

If we compare the third position repair in Extract 14 and the candidate-understanding OISR in Extract 15 below, we see that structurally they have much in common.

Extract 14: Third position repair. Originally Extract 5 [GTS,I,37] (Schegloff, 2000b, p. 1303)-Shortened by me.

- A: Well that's a little different from last week. Trouble-source
 B: heh heh heh Yeah. We were in hysterics last week. Inadequate response
 A: No, I mean Al.
 B: Oh, He...
- Extract 15: Candidate understanding OISR. Originally Extract 68 [SBL:2:1:8:2] (Schegloff et al., 1977, p. 379) Shortened by me.
- There's 'n- There's 'n answer to that too. Trouble-source
 (2.0)
 hhhh a physical answer t(hh) oo hhh
 You mean takin laxative at night.
 No, suppositories.

 Trouble-source
 Repair-initiation
 Self-repair

Both line 2 in Extract 14 line 4 and Extract 15 seem to trigger A to do self-repair. A difference is that while B's line 2 in Extract 14 does not signal any suspicion that there is a misunderstanding occurring, B's line 4 in Extract 15 performs a clear repair-initiation by explicitly providing a candidate understanding and asking if that is what A meant. In both cases A does self-repair as a consequence of B's response, but the conventional taxonomies of conversational repair would categorize Extract 14 as a (third position) SISR and Extract 15 as a (candidate offer) OISR, because B's line 4 in Extract 15 demonstrates awareness of trouble and seems to *be designed to*, or *intended to* make A self-repair. Such categorizations are thus examples of deviations from the next-turn proof procedure. Both the seemingly deliberate, or *intended*, repair-initiation in Extract 15 and the seemingly *unwitting* repair-initiation in Extract 14 have strikingly similar consequences for their next turns.

Using real data from actual conversations is more likely to provide ambiguities than clear cut, made up examples (see e.g., Goffman, 1981; Searle, 1979). Extract 15 (above) also exemplifies another feature which deserves a bit of discussion, relevant to the question of repair-initiation and intention, namely the long pause in line 2. As it is an audio only recording of a telephone conversation, we know nothing about the embodied conduct of the interlocutors (and neither do the conversationalists). Nor do we know the situational context of this extract, but as it appears, A first gets no response from line 1, and then produces a specified version of it in line 3. Because B seemingly does nothing in line 2, A's self-repair in line 3 easily fits the category of SISR. On the other hand, A's statement in line 1 claiming that there is a solution, without revealing what this solution is calls for a response by B. When B, in line 2, does not provide this, a notable absence of response occurs, which stands out as any other non-fitted response (Manrique & Enfield, 2015). According to Schegloff (2000b) such silences recurrently are followed by either a repair-initiation or a SISR. Judging from the transcript, line 2 in Extract 15 is a notable absence of response with no hesitation noise, and as such functionally resembles a freeze-look response (see Section 2.5.2.3). In any case the two-second pause in line 2 dramatically exceeds the average 0.1-0.3 second gap between turns (Kendrick, 2015a). Considering the next-turn proof procedure, it is clear that this extensive gap is followed by A's self-repair, making the prior statement from line 1 more specified. Seo and Koshik (2010) argue for treating embodied gestures (pokes, turns and tilts of the head) as selfsufficient OISRs instead of merely as embodied displays of puzzlement, potentially engendering an SISRs. Treating B's notable absence of response as an action would lead to Extract 15 containing two OISRs, as shown in Extract 16. First a notable absence of response in line 2 and then a candidate-understanding repair-initiation in line 4 that is followed by A providing both an explicit disconfirmation and a self-repairing clarification in line 5.

Extract 16: Possible multiple OISR. Originally Extract 68 [SBL:2:1:8:2] (Schegloff et al., 1977, p. 379) Shortened by me.

```
    There's 'n- There's 'n answer to that too. Trouble-source 1
    (2.0) Repair-initiation 1
    hhhh a physical answer t(hh) oo hhh
    Self-repair 1/Trouble-source 2
    You mean takin laxative at night. Repair-initiation 2
    No, suppositories. Self-repair 2
```

Different kinds of multiple other-initiations of repair are described, analyzed and discussed in the second article (Skedsmo, 2020a). A brief account of the phenomenon will also be provided in the following paragraph.

2.7.6 Multiple initiations of repair.

Already in the seminal paper by Schegloff et al. (1977) it was stated that not all OISRs lead to immediate success and a restoration of the progress of the conversation. (Neither do SISRs. See Lerner et al., 2009).

Schegloff et al. (1977) showed that subsequent repair-initiations overwhelmingly are referentially stronger, meaning that they are more restricted, than the prior, which has led to several researchers referring to subsequent, more restricted, repair-initiations as "upgrades" (Baranova, 2015, p. 86; Dingemanse, 2015, p. 250; Floyd et al., 2015, p. 194; Manrique, 2017, p. 86; Manrique & Enfield, 2015). There has to my knowledge not been any research conducted on multiple initiations of repair where the subsequent repair-initiations have been described as referentially "downgraded", even though there is evidence that this occurs (Kendrick, 2015b; Oloff, 2018). This is discussed in the second article which is about multiple OISR sequences (Skedsmo, 2020a). Multiple OISR sequences are claimed to be rare (Kitzinger, 2012; Schegloff, 2000b), but in the NTS data, 68% of the individual repair-initiations were found inside multiple sequences (Skedsmo, 2020a, p. 539). Levinson (2015) shows that subsequent repair-initiations in multiple OISR sequences can target any of the three parts of the prior individual OISR as their trouble-source: The initial trouble-source can be retargeted, a (failed) self-repair can become a new trouble-source, and even a prior repair-initiation can become target of the next repair-initiation, produced by the other interlocutor, constituting an embedded OISR sequence that must be solved before the embedding OISR sequence can progress. These three patterns are examined in the second article (Skedsmo, 2020a).

Multiple other-initiations of self-repair are sometimes called *multiples* for short (Alzaidi, 2016; Schegloff, 2000b). In the special issue of *Open Linguistics* (2015/2016) they are referred to as *cascading*, *extended* or (predominantly) *non-minimal* repair sequences. They have been identified in several languages (Baranova, 2015; Blythe, 2015; Dingemanse, 2015; Dingemanse et al., 2016; Enfield, 2015; Floyd, 2015; Gisladottir, 2015; Kendrick, 2015b; Levinson, 2015; Rossi, 2015). The term "cascading" (Lerner & Kitzinger, 2012, p. 112; Lerner et al., 2009), which replaced their term "two-step repair" (Lerner & Kitzinger, 2007, p. 536), was originally used in the expression "cascading *troubles*", reserved for cases where subsequent (self-)initiations of self-repair were targeting the prior self-repair of the prior trouble-source. I prefer to sustain this reservation and avoid the term *extended* as it implies some

kind of growth. The term *non-minimal* is also avoided, as it is easily confused with *non-minimal post-expansions* (Schegloff, 2007; Sidnell & Stivers, 2012), which refers to SPPs (responses) that do more than to merely back-channel, signal interest, affirmation etc., but call for more action before the progress can be restored. All OISRs hence qualify as non-minimal post-expansions.

As we have seen, investigations of and discussions about different kinds and various aspects of conversational repair in spoken languages have made some progress since the seventies. The following section will present such findings from studies of signed languages.

2.8 Other studies of conversational repair in signed languages

There is a distinct scarcity of studies of conversational repair in signed languages. An early account is Dively (1998), focusing mostly on SISR in ASL, finding that the organization of repair in ASL seems quite consistent with what is found in other (spoken) languages, but that signed language-specific trouble-sources can occur. One example is that signed languages use loci in signing space to represent referents occurring in the text. A person or another referent may be assigned to a certain locus in the signing space, and subsequently referred to by pointing there, rather than being explicitly re-mentioned. This practice resembles the use of pronouns like he, she, it etc., but if for example a person talked about is assigned to a specific locus and then is given a new locus, or another referent is assigned to an already "occupied" locus, trouble might arise. The study also shows how ASL signers can produce more than one format of repair-initiation simultaneously, by for example producing "WAIT-A-MINUTE" with one hand, while other-repeating a problematic sign with the other. It is also noteworthy that Dively (1998) suggests that ASL has specific repair-related lexical items, such as the "nohanded signs" (non-manual expressions) "I-WRONG" and "TRY-TO-REMEMBER" (p. 167), a claim that invokes the discussion about distinctions between sign and gesture (see e.g., Goldin-Meadow & Brentari, 2017; Liddell & Metzger, 1998; Marschark, 1994). A substantial investigation of OISR practices in Argentine Sign Language (LSA), has been conducted (Manrique, 2016, 2017; Manrique & Enfield, 2015). In addition to providing a general overview of formats and organization of OISR in naturally occurring conversation in LSA, the methodical descriptions and the concept of freeze-look repair-initiation (also found in Swiss German Sign Language, Girard-Groeber, 2014, 2020) have been of great importance for this thesis (see Sections 2.5.2.3; 2.7.5; 3.5; 4.2; 5.7; Skedsmo, 2020a; 2020b).

The above-mentioned studies seem to be all that has been published on conversational repair in monolingual signed language conversation up till now. In addition, some work has been done on bilingual signed conversations, like the investigations of repair-initiation in cross-signing, mentioned in Section 2.5.2.3 (Byun et al., 2018; Zeshan, 2015). Among the findings of Byun et al. (2018), I will highlight that 76% of the trouble-sources occurred in utterances that were "try-marked" (Schegloff, 2007, p. 237) by the utterer looking directly at the recipient and lengthening or *holding* (Cibulka, 2016; Groeber & Pochon-Berger, 2014) the potentially problematic part, and hence monitoring B for display of recognition or understanding. This indicates how the conversationalists anticipate trouble at particular points in the conversation and pay special attention to potential repair-initiations from the other. These try-markers can thus also be seen as "repair-initiation opportunity markers", providing a space for legitimate repair-initiation (Byun et al., 2018), and might thus possibly increase the likelihood of B initiating repair.

A study of conversational repair in arranged, task based, interpreter-mediated conversation between English and British Sign Language (BSL) (Crawley, 2016) sheds light on reasons for utterances becoming trouble-sources for the interpreter. The study highlights two central kinds of trouble, namely *ambiguity* and *underspecificity*. Ambiguity refers to trouble occurring as an utterance makes two or more competing meanings possible, and the interpreter needs to choose one of them in order to produce a rendition (Crawley, 2016, pp. 62-64). Languages ordinarily contain a massive amount of lexical, structural and phonetic ambiguities, that often go unnoticed in interaction because we choose from their alternative meanings either based on the context established by prior talk, or the ambiguity gets disambiguated by subsequent text (Roland et al., 2006). A simultaneous interpreter, often being an outsider to the conversation, may to a lesser degree have access to the knowledge needed to disambiguate or will not be able to wait for it to be resolved before rendering their interpretation.

Underspecificity refers to trouble where the original utterance, though complete and coherent in the original language, lacks information necessary to produce a complete and coherent utterance in the target language (Crawley, 2016, p. 224). Some languages have gender-specific pronouns (like e.g., Norwegian, German and English) while others do not (like NTS, Estonian and Finnish). To talk about people in English or Norwegian without knowing their gender is difficult over time, and the need to attain this information will emerge. Notable in Crawley's

study (2016) is that no instances are reported where the interpreter simply does not recognize or understand an expression made in any of the languages.

Other findings from Crawley (2016) are related to how the BSL interpreters employ embodied, rather than lexical resources for marking changes of footing (Goffman, 1981; Lerner & Kitzinger, 2007) from interpreting (i.e., speaking/signing on behalf of one of the primary participants) to doing non-renditions (Wadensjö, 1998a), like repair-initiations and other utterances made on their own behalf. The study also reveals evidence of an allegiance between the BSL interpreter and the deaf BSL signer, allowing the deaf BSL signer to discuss with the interpreter what the hearing English speaking primary party said or meant without including them in the negotiation. This practice is described as comfortable for the interpreter and the deaf BSL signer, while having "slightly less positive" implications for the hearing participant (Crawley, 2016, p. 231).

Repair-initiation in Swiss German Sign Language has been discussed in Girard-Groeber's work on deaf and hard of hearing students in spoken language and signed language classrooms (Girard-Groeber, 2014, 2018, 2020; Groeber & Pochon-Berger, 2014). Among her main areas of research are examinations of educational question-answer-sequences in both spoken language classrooms, sign language classrooms and mixed language classrooms. She was probably the first to detect the phenomenon later called *freeze-look* (Girard-Groeber, 2014, 2020; Manrique, 2016, 2017; Manrique & Enfield, 2015; Skedsmo, 2020b). Presenting her findings at a conference (Girard-Groeber, 2014), she described "gazing at the questioner" combined with an "absence' of response" (p. 8). Her work on turn-final holds (TFH) (Groeber & Pochon-Berger, 2014) showed signing interlocutors holding the last sign in an utterance, not releasing it until the other provides a relevant response. This practice can be seen as an alternative to a third position repair after a response that is treated as inadequate. The TFH-practice has been found following explicit repair-initiations in LSA (Floyd et al., 2015; Manrique, 2017) where the TFH is not released until an acceptable self-repair is produced or seems to be in production. The TFH is documented in several languages (see Floyd et al., 2015 for an overview).

This thesis is the first extensive study of conversational repair in NTS, except for a small pilot study of OISR practices retrieved from one single recording of a multiperson conversation (Skedsmo, 2018).

3 Data and methodology

There is a wide gulf between what people say and what they think they say – let alone what they think they ought to say; and sensitive investigations of this kind require a database of authentic, natural, unselfconscious speech. (Halliday & Webster, 2007, p. 240)

There are numerous ways to explore languages and communication. In everyday life, introspection is a rather unreliable, still quite common, and easily accessible method. In both physical encounters and in discussion-groups on social media, native and non-native users of various languages discuss questions about how to use, pronounce, write, or sign various expressions in different contexts. Typical expressions will be "I say it like this...." or "I don't think you can use that expression in this context. It doesn't feel right." Properly conducted corpusbased research on language use and other interactional behavior, meets the standards that Halliday & Webster describe in the above quote. Carefully and generously collected, naturalistic corpora of sound- or video recorded conversation, covering relevant demographic groups and situational genres, make it possible to determine and describe what the members of a community actually do and say in the situations covered by the corpora – even if the participants claim that they usually do and say otherwise – and even if the analyst has a clear idea that they would *normally* do and say otherwise.

The research method employed in this study is conversation analysis (CA) (Sacks et al., 1995; Schegloff, 1987a, 2007; Sidnell & Stivers, 2012) which has its roots in ethnomethodological sociology (Garfinkel, 1967, 1991; Sacks, 1984; Whittle & Mueller, 2019). The use of video-recorded data, where inductive research claims are grounded in empirical details of actual behavior also calls for terms like micro-ethnography or video-ethnography (Fitch, 2004; Hjulstad, 2017; Leeds-Hurwitz, 2004; Moerman, 1987), terms which are often used in relation to classroom research and normally include interviews with the participants. CA sets out to study the social, interactional practices conducted by members of a community, and assumes that these practices are shared and possible to identify as relatively stable, structural patterns (Plejert, 2004). CA as a methodological practice is inseparable from its theory (Gee, 2010; Ochs, 1979). CA has similarities with the work of ordinary language philosophy (Austin, 1962; Searle, 1969) in its focus on what a particular piece of talk is *doing*, rather than what it

is about (Schegloff, 2007). A rather significant difference between the speech-act theory of ordinary language philosophy and CA, is CA's regular discarding of intention (Sidnell & Stivers, 2012). CA relies heavily on collections of conversational data (see Section 3.2), and explorations of what the communicative actions conducted by the participants are *treated as* in the subsequent turn, by the other interlocutors; what is often referred to as the next-turn proof procedure (see Section 1.2; 2.2 and 2.7.5). CA treats context, not only as an epistemological grounding of the interpretations and inferences made by the interlocutors in the conversation, but also as being created and renewed during the conversation (Plejert, 2004) and is quite restrictive in its demand of *naturalistic* or *naturally occurring* data (Lynch, 2002; Speer, 2002; Stokoe, 2013; see Section 3.2) as empirically reliable sources for descriptions of how conversations are conducted, as opposed to pedagogically designed, fictional examples.

The following sections will describe the data collection and analyses in this study and discuss the notions of naturally occurring data and representativity.

3.1 Data collection and analysis

Assembling such a collection can be a strange operation. Though sometimes one has quite a clear idea of what one is collecting, often one does not. If one does, the effort to collect more "specimens" may quickly muddy that "clear idea," or transform it. (Schegloff, 1997a, p. 502)

To be able to investigate and describe patterns of other-initiations of self-repair (OISR) in Norwegian Sign Language (NTS) I needed samples of actual conversation that would be both internally comparable, in the sense that they shared some basic features along different parameters, such as formal/informal and, symmetrical/asymmetrical, but also, that they were comparable to other conversations likely to occur among the participants. To recruit participants for the study I made use of my network of contacts accumulated over some 25 years of working as an interpreter and interpreter trainer in the NTS community. They were recruited by contacting deaf acquaintances who I knew were working with other deaf NTS signers. Deciding what kinds of recordings would constitute adequate data took the work through several winding roads before settling for a rather uniform collection of (lunch) break conversations. A five-camera recording of two hours of a chaired job meeting resulted in just a few instances of OISR, as did six hours of video surveillance of an office shared by two deaf colleagues. Most

of the time, one, or both, of the colleagues were out of the office, and a cleaner mopped one of the cameras out of position. I also tried following a group of carpenters during their work, but their constant movement forced me to rely on only one handheld camera and capturing both the end of one turn and the start of the next one was impossible.

Realizing I needed data that were less formal than a job meeting but also to secure that the participants stayed in the conversation, and preferably in the same position, for some time, led me to record deaf coworkers having breaks during the work day. I found lunch breaks to be quite ideal for the purpose of collecting such informal conversation. Since some of the participants usually had their lunch breaks in large cafeterias among other NTS signing colleagues, whom I had no consent for recording, I offered two groups of three conversationalists food and drinks of their choice for their lunch breaks to be had in separate rooms outside of the cafeteria area, which was more convenient for video recording.

I ended up with six different recordings of deaf NTS-signing colleagues having different kinds of breaks during their work hours. Four of the recordings are lunchbreaks, and include consumption of food and drinks, while two recordings are of situations where the participants announced to me that they were going to "sit down and have a chat" and suggested that it might be suitable for recording. Being coworkers, the thematic content of their conversations varied from rather personal matters to work related.

The video data was collected during the fall of 2018 and the spring of 2019. It consists of a total of 3 hours and 38 minutes of dual camera recordings. The participants were 16 deaf coworkers, 11 men and 5 women (see Section 3.3), recorded in the physical contexts of three different enterprises in south-eastern Norway, were they had their daily work. Common for all the three enterprises is that they have a high percentage of deaf employees and have NTS as the working language, qualifying, at least at department level, as "deaf space" (Gulliver, 2009; Solvang & Haualand, 2014).

All participants filled out a metadata questionnaire, identical to the one used for a pilot NTS corpus collection in Norway (Ferrara & Bø, 2015) with questions about their age, school background, linguistic background etc. (Appendix 5). Their age spanned from 18 to 52 years, with an average of 39. All report having learned NTS at the age of 0-7 years and having attended schools for the deaf. Thirteen of them claim to have NTS as their preferred language.

One prefers another signed language; one prefers spoken Norwegian and one prefers pidgin signed Norwegian (see Section 3.3 about representativity).

All the conversations are multiperson conversations. Five recordings have three participants, one has six. Six of the participants feature in two recordings. Regarding OISR, dyadic and multiperson conversations can be quite different concerning trajectories and participation framework (Bolden, 2011, 2013; Egbert, 1997), though a multiperson conversation recurrently contains many dyadic interchanges, and interlocutors other than the repair-initiator and the trouble-source utterer ordinarily withdraw from taking part in the OISR interchange – at least in the first rounds (Lerner, 1993). There is also another significant difference between having three or more than three interlocutors. More than three persons allows for *schisming* (Egbert, 1993, 1997), meaning that a conversation splits into several conversations. Schisming, quite effectively prevents deaf interlocutors from perceiving what is being said in other conversations going on simultaneously. When different schisming conversations are going on at the same time, *entering repair-initiations* can be used by an unaddressed participant (Beukeleers et al., 2020; Holler & Kendrick, 2015) as a means for entering someone else's ongoing conversation (Bolden, 2011; Egbert, 1997).

This section has described the conversational data collected for the study as *informal*, but within CA there is a claimed preference for *naturally occurring data* (Hutchby, 2019; McKenna et al., 2019; Schegloff et al., 1977; Stokoe, 2013). The nest section will discuss this concept.

3.2 "Naturally occurring data"

Various researchers define the concept *naturally occurring* differently (Lynch, 2002; Speer, 2002). A way to determine whether a stretch of talk can be described as naturally occurring is to investigate whether the researcher has had any influence on how the data arose or how it was shaped, for example by the researcher participating by asking questions etc. (Speer, 2002). Potter (1997) claims that data are naturally occurring if the interaction that is recorded would have happened in the same way if the researcher was sick that day and had to cancel. For two of my lunch-break recordings I hold this to be true. For the other two lunch breaks, where the participants were asked to have their lunch in a different room than the cafeteria where they usually eat, the settings were not quite like those they were accustomed to. For the

last two recordings I cannot guess what would have happened if I had not arranged for permission to record them. Also, generally, I cannot speculate on how the presence of the cameras and the knowledge of being video recorded may have affected their choice of topics, ways of communicating or otherwise altered their general behavior (Gordon, 2012; Labov, 1972). I have a couple of examples that demonstrate awareness, such as one participant waving "goodbye" to the camera as they leave the room, and one instance where a participant is suggesting jokingly that I probably just want to examine their table manners. Contrary to those examples, I have several examples of participants standing up, covering the scope of the cameras with their backs, one participant moving his chair to make better room for another, putting himself in a position where he is partly covered behind another participant, etc. These factors considered, I will claim that the data are at least "naturalistic" (Speer, 2002) given there is no provoking of what is discussed or how, and that no researcher, camera operator or other alien person is present. On the other hand, the recordings are also "contrived" (Lynch, 2002; Speer, 2002) because there were appointments made, consent forms gone through and signed, and visible video cameras set up in the room. This way all participants knew why they were in the situation they were in. I cannot as Drew (1989), claim that the recording initially was not meant for research purposes and therefore more valid than it would otherwise be.

Just as important as the data being naturalistic, are questions of nativeness and representativity, in other words, how the participants qualify as competent members of the cultural and linguistic population that is under examination.

3.3 Representativity

The participants in this study are deaf NTS signers, with their daily work in an NTS environment, among other deaf NTS signers. I here carefully avoid the notion of nativeness (except when referring to myself as a non-native/L2 signer). The notion of nativeness applied to signed languages is problematic, even though it is not always treated as such. The book "Cultural and language diversity and the Deaf experience" (Parasnis, 2004), mentions "native" (including "nativelike") sixty-two times, without defining the term(s). In the presentations of the authors (footnotes on the first pages of each chapter) we find descriptions like "She is Deaf, as are all members of her family except for her daughter." (p. 99), "He is a Deaf native ASL user and comes from a family of deaf people " (p. 181), or that an author is "a native user of ASL, has a hearing loss and comes from a family of Deaf and hard-of-hearing people that has spanned four generations." (p. 232). To separate native from non-native signers, Miller et al.

(2015) simply define native signers as those who have deaf parents using a signed language, while non-native signers have hearing parents. This definition of nativeness applies to less than ten percent of the deaf population (Mitchell & Karchmer, 2004) or as low as five percent⁶ (Nyst, 2015), and would leave us with a group of between 250 and 500 individuals in Norway (NDF, 2020). Five of the 16 participants in this study belong to this "sub-minority". When the Auslan (the majority signed language used in Australia) corpus, was collected, the definition of "native signer" was as someone who has acquired Auslan from birth from signing deaf parent(s) and "early learner/near native" as someone who has learned Auslan before the age of seven (Johnston, 2010). The category "early learner/near native" applies to the remaining 11 of my participants.

Whether or not a person qualifies, or identifies as a member of the (Norwegian) cultural and linguistic minority of the deaf (often spelled Deaf, to symbolize that the term is not referring to the hearing loss per se), besides meeting the "breed standards", has traditionally been determined by whether or not the person has attended one of the government-run schools for the deaf (Haualand, 2001). These were boarding schools, with dormitories for students whose families did not live nearby. The schools functioned as meeting places and an arena for socializing into the deaf society and acquiring NTS, even though NTS was a forbidden language inside the classroom for many years. All the 16 participants in this study attended schools for the deaf, though some of them also went to other schools. The schools for the deaf are now either closed or merged with municipality schools, and deaf children are more or less scattered around different municipality schools, some individually, some in groups of different sizes (see e.g., Hjulstad, 2017 for more information on this development). These changes, along with (and not unrelated to) the continuous development of technical aids and inevitable discussions about whether communicating with a child in a signed language is harmful or beneficial, has given a rather heterogenous population of deaf signers of NTS. Selecting participants according to their "nativeness" or according to how they see themselves, or are seen, as belonging to the cultural and/or linguistic minority of the deaf (or Deaf) would make this research less valid for representing the actual population of deaf NTS users as a whole. From an outside (or medical) point of view, it might seem simple to determine that participants are

⁶ These estimations are from the United States, and do not apply to all populations. Costello et al. (2008) found that in the Basque Country the percentage was much lower.

suitable if they do not hear anything and communicate using manual signs, but (residual) hearing also seems to be of less relevance for the parameter of "deafness". One of my participants was born deaf, grew up with deaf siblings, went to a school for the deaf and at the time of recording, as all the participants, worked among other deaf signers of NTS every day, but nevertheless speaks Norwegian on the phone, seemingly unconstrained.

While the participants' ages are fairly evenly distributed, there is a distinct skewness in gender. Eleven men and five women is, though coincidental, a notable imbalance. There are large variations in how many OISRs the individual participants produce in each video extract. There might also be quantitative and qualitative differences between genders. This is, however, not an object of examination in this study.

A concluding remark to this discussion will be that this study merely reveals the actions performed by these particular individuals in the situations captured by the cameras and selected for my data extracts.

The following sections will clarify crucial aspects of the technical and analytical procedures, by providing a brief description of the trajectories for investigating the video data.

3.4 Technical procedures

The recordings that constitute the data for the study were all conducted with two, small, tripod-mounted, digital HD cameras, recording from different angles. The cameras were set up, started, and left (see Figures 3-6 below for camera angles and pictures). In some recordings, depending on the number of participants and seating facilities, both cameras capture all the interlocutors. In other recordings, pictures from both cameras had to be played back simultaneously to see all the interlocutors.

The recordings were approximately 30 minutes each. Neither I nor any other external person was present in the room during the recording, as there is a well-known experience that deaf signers tend to switch into a form of their signed language closer to spoken language if a hearing L2 signing person is present (Fischer, 2009)⁷. The participants were not given any tasks or topics to discuss or avoid, but were informed that if they talked explicitly negatively about an-

 $^{^{7}}$ If a camera operator had been necessary, an obvious solution would have been to have a deaf NTS signer on that job.

yone outside the room, those recordings could not be used. They were not specifically informed about the area of scientific interest, except that I was out to collect "ordinary conversation".

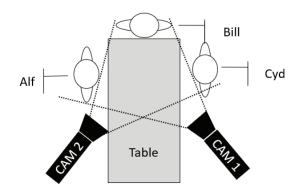


Figure 3: Camera angles for three interlocutors.



Figure 4: Pictures of three interlocutors from two cameras

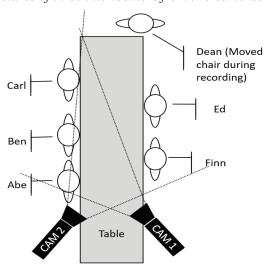


Figure 5: Camera angles for six interlocutors.



Figure 6: Pictures of six interlocutors from two cameras. Yellow ring shows partly hidden participant, "Dean".

As seen in Figures 3-6, the camera angles provide footage of the interlocutors slightly from the side and vertically, slightly from above rather than directly at front (as advised by Perniss, 2015). Not attending the cameras during recording is of course risky. The unfortunate seating in Figure 6 is the result of the participants moving their chairs around after the cameras were set up, so that Dean ended up being partly covered by Abe during most of the recording. (Yellow circle in the rightmost picture in Figure 6.) It is also hard to determine gaze directions and facial expressions when the interlocutors are partly turned away from the cameras. As such, video recordings do not, and never will capture everything that is happening in situations (Landmark, 2016), but as Sacks (1984) says: "other things, to be sure, happened, but at least what was on the tape had happened" (p. 26). It is thus crucial to keep in mind that the data are the video recordings, not the actual situations. Additional cameras, increased resolution and more frames per second could provide the researcher with detailed insight into all interlocutors' visual conduct at all times – perhaps even better than the interlocutors had themselves, which would be useful for accuracy, but would risk changing the analysis from the intended emic perspective, providing the researcher with an omniscient position instead. Good quality footage at functional angles is important, but after all, CA is concerned with how the conversationalists themselves turn-by-turn, sequence-by-sequence, respond to each other's conduct, which is grounded in their perceptions and understandings.

3.4.1 Investigating video data

The dual camera recordings of the conversations were first formatted to mp4, and then loaded into ELAN (Crasborn & Sloetjes, 2008; Sloetjes & Wittenburg, 2008) so I could see the interaction moment-by-moment from two angles at the same time (see Figure 7, below). Then, I started watching the videos, typically from around five to fifteen minutes into the recording,

with the intention to reduce potential camera-awareness (Heath & Luff, 2012b). Having detected and marked the first OISR sequence in the extract, the end of the extract I was going to use was marked, exactly ten minutes from that. This was done with six different recordings which gave a total of 60 minutes of data for close analysis. Separate sets of tiers (lines for annotations) were set up for each participant in the recording; signing, gaze and translation (see sample transcript in Section 3.7.1) were created in all ELAN-files. Numerous other, experimental tiers were also established, like tiers for categorization of different repair-initiation formats, tiers for comments and for durations. ELAN is convenient for measuring time. An annotation along a tier has a starting point and an end point and can be placed with extreme accuracy from one picture-frame to another. Every annotation shows precise information about the duration of the stretch of video it refers to. This feature makes it possible to assign dedicated tiers to annotations for marking and measuring for example the interval between the onset and the release of a gesture, the duration of a freeze-look response and the time between other actions, like between the completion of a self-repair and the onset of an upgrade to a more restricted repair-initiation or to a display of (late) understanding.

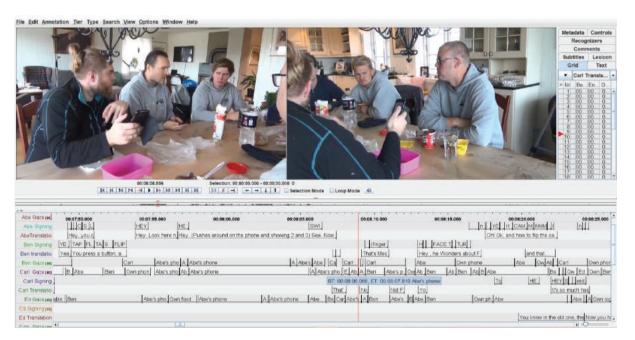


Figure 7: Screenshot from ELAN

The process of annotating and transcribing the video-recorded interaction in ELAN, along the timelines of the different tiers reveals what came before and after what, when the participants gaze at each other or in other directions etc. in ways that are otherwise almost impossible to

achieve. I was often surprised by the divergence between what I thought I saw, just by looking at the video recording, and what I found by pinning each action down along the tiers. My first impression often ignored features like hesitations, repetitions, self-initiated self-repairs, interlocutors looking away from utterances they later responded to etc. It is possible to export annotations as transcriptions of many different kinds and formats from ELAN, with exact time-codes, a chosen number and order of tiers, precise displays of overlapping actions, etc. However, I found these transcriptions too detailed, spacious, and less readable than the ones I ended up using for presentation purposes, which were constructed manually in Word in a Jeffersonian style.

As an L2 user of NTS I elicited the assistance of one of the deaf L1 signers of NTS among my colleagues. Together we went through a large number of the extracts I had selected for transcription and presentation, and other OISR cases where I was in doubt whether to – or how to – categorize as instances of OISR. No disagreements arose concerning the understanding of the OISRs, but our cooperation gave me valuable insights into the L1 consultant's intuitive interpretation of facial expressions, changes in gaze and other actions signaling trouble, disaligning, etc. It was also interesting to see my L1 colleague's interpretations of some of the freeze-look cases, commenting: "There... He doesn't say anything, but he doesn't understand. I know that look." (my translation from NTS). A central part of this rather technical phase of the project was the categorization and coding of the OISR sequences that were to constitute the core selection of cases.

3.4.2 Selection and coding of core cases

When I started studying the ten-minute extracts of the conversations, I was already looking for cases of OISR. It was thus not a case of *unmotivated looking* (Hutchby & Wooffitt, 1998; Sacks, 1984). What to focus on *within* the field of OISR was, however, still quite open. The coding schema (Appendix 6) developed for and published in Dingemanse and Enfield (2015/2016); (Dingemanse et al., 2016) was transformed into an Excel sheet. The schema originally contains six main parts. The first part is called "Basic data", covering unique identifier codes for each case of OISR, transcriptions of the sequences etc. The next three parts are for coding features of the repair-initiation, the trouble-source, and the self-repair. The fifth part is about visible behavior, which was sometimes problematic, as all my data were visual and visible. The sixth part is for coding the sequential features of the repair-initiation and the participation framework of each OISR case. The different parts of the original schema contain

various amounts of questions with different numbers of alternatives which gave an Excel sheet with 114 columns.

The coding schema was originally developed and used mainly for spoken languages, and I have added several additional coding categories during the process, which eventually resulted in an Excel sheet of 178 columns. Examples of added categories are whether there is a marked change-of-state token displaying understanding after the self-repair, like "Oh!" or "I see!", and time measurements for freeze-look repair-initiations, like duration from completion of the trouble-source turn leading to a freeze-look repair-initiation until self-repair begins. I also measured the time from the self-repair turn begins till the release of the other's freeze-look. Many of these additional categories were more or less experimental and several of them failed to function, such as duration from the problematic part of the trouble-source turn was completed until the onset of the repair-initiation ("incubation time"), which often could not be determined both because it was unclear what was treated as problematic, and because it is problematic to decide where an absence of response (freeze-look) becomes notable. Figure 8 shows an extract of the coding schema in Excel, while Figure 9, though definitely unreadable, gives an impression of the size of the schema.

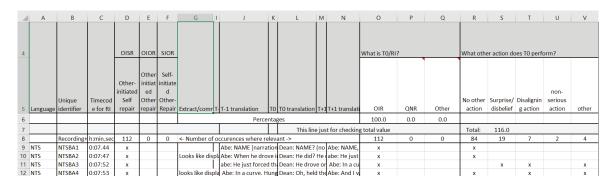


Figure 8: Extract of coding schema in Excel.

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Figure 9: Extract of coding schema in Excel, zoomed out.

The initial collection of OISR cases resulted in 133 individual cases. These were reduced to a core selection of 112 cases, by applying a strict "next-turn proof procedure" (see Section 2.2

and 2.7.5). The procedure bluntly excluded even the most convincing signals of trouble or requests for repair if they had no uptake or led to no self-repair. On the other hand, what might look like a question-formatted news receipt (Dingemanse et al., 2016), non-serious action employing a practice of OISR (like an exaggerated "Whaat?") was included if it was responded to as if it was a "true" repair-initiation.

Among the most helpful features of the Excel coding schema were the built-in formulas, instantly providing numbers and percentages for each feature of the repair-initiations. These gave basic information like the overall distribution of different formats and subtypes of repair-initiations (Skedsmo, 2020b), but also allowed for redistribution into new tables, separating *single* repair-initiations, instantly reestablishing the progress of the conversation, from the *first*, *other* or *last* repair-initiation in multiple OISR-sequences (see Section 3.5 and 4.2). These four positions allow for rearranging into both first and subsequent OISRs, and into nonclosing and closing OISRs (see Section 3.5 and 4.2) which gave a valuable contribution to my second article (Skedsmo, 2020a).

3.5 Numerical breakdowns of the data

There has traditionally been resistance toward quantitative methods within CA (Schegloff, 1993). Still quantitative approximations are recurrently made through statements about whether a phenomenon is frequent or rare. Schegloff (1993), however, specifically notes that practices of other-initiation of repair are "relatively well defined" and "can be 'qualified' for quantitative treatment" (p.115). During recent years, several studies have provided quantitative analyses of the distribution of various phenomena retrieved from conversational data (e.g., Boström, 2021; Floyd et al., 2015; Manrique, 2016, 2017; Sikveland et al., 2016). In this study, simple numerical breakdowns have been provided, and are included in the first and second articles. The first article (Skedsmo, 2020b) provides a quantitative presentation of the distribution of different formats and subtypes of repair-initiation among the 112 core cases in the NTS data (Table 1 in Section 4.1). It is crucial to stress that these data are not representative for all kinds and genres of NTS discourse. The data are all from multiperson conversations, though they obviously contain numerous dyadic sequences. The conversations were all informal talk between deaf, NTS-signing coworkers, who know each other well. These features make the data internally commensurable, but less comparable to other, more specialized or institutional conversational genres like classroom discourse (Girard-Groeber, 2018, 2020;

McHoul, 1990; Seedhouse, 2004; Smith & Ramsey, 2004; Ufuk & Nilüfer, 2019), conversations between, or involving L2-speakers (Boström, 2021; Hall, 2018; Oloff, 2018; Ross & Kasper, 2013; Terzi, 2010), or bilingual situations where both spoken and signed languages (and combinations of these) are used (Girard-Groeber, 2018, 2020). Some of the participants feature in two recordings, while others in just one. Still overrepresentation is reduced by no two extracts showing the same combination of participants. This way the six different recordings are internally comparable, and the random selection of 10-minute extracts secured against picking the stretches with the highest or lowest frequency of OISR, the most interesting cases etc. To be able to compare with the findings from Dingemanse and Enfield (2015/2016), the data was collected and analyzed in accordance with the key properties of data collection and analysis in their project (Dingemanse & Enfield, 2015).

The coding schema has categories for registering each individual OISR sequence as a single case, or as part of a multiple OISR sequence, by registering the OISR as first, other, or last in a multiple sequence (Table 2 in Section 4.2). This allowed both for breakdowns of distribution of the various formats and subtypes of OISR occurring as first or subsequent repair-initiation (Table 3 in Section 4.2), and for dividing individual repair-initiations into the ones which solve the trouble and get the conversation back on track, and the ones that are followed by more repair-initiations. Such a division into closing and non-closing repair-initiations is presented in the second article (Skedsmo, 2020a). This breakdown (Table 4 in Section 4.2) shows the highest degree of skewness in distribution of formats. The candidate offer repair-initiations are overrepresented among closing repair-initiations and the implicit OCRIs, the freeze-look repair-initiations, are considerably fewer. This is, however, not to be read as one format necessarily being generally more efficient than another, something that will be addressed in the following subsection.

3.6 Limitations for how to interpret the data

For professional language workers, like interpreters, the division into closing and non-closing repair-initiations runs the risk of being read as a prescriptive demonstration of the "clarence rate" of the different OISR formats. Explicit reservations regarding the transferability of the findings to areas such as NTS interpreting are therefore necessary.

One methodological limitation for applying the findings to interpreter mediated situations is that the conversations in the data are monolingual, informal discussions with no work ethical considerations or consequences. Initiating repair is hence entirely optional. As opposed to an interpreter at work, these interlocutors do not have to constantly pay attention and secure their own and the other's understanding. Another important aspect is that a choice of repair-initiation format is never entirely free. In order to employ a restricted repair-initiation, the initiator must have a certain grasp of the trouble-source utterance. To produce a candidate-offer repair-initiation is also potentially rather face-threatening (Brown & Levinson, 2013; Goffman, 1967; Manrique & Enfield, 2015; Pomerantz, 1985). Candidate offers can occupy the boundary between other-initiations of *self*-repair and the more invasive, and hence dispreferred (other-initiated) *other-repairs* (other-corrections) (Albert & de Ruiter, 2018). Candidate offers also include demonstrating a possibly wrong understanding of the trouble-source turn (Antaki, 2012). A format from the other end of the scale of referential strength, a freeze-look repair-initiation is implicit (off-record) and does not even have to be accounted for (Manrique & Enfield, 2015).

Even though the quantitative results do not constitute professional or conversational advice, the numerical breakdowns provide increased insight into the distribution of different formats and subtypes of repair-initiations across different sequential positions, which has not been documented earlier. The analyses might also be useful for other researchers interested in investigating similar or comparable matters in other genres and other languages.

Limitations of the quantitative explorations are plentiful, and the results must not be seen as representing other conversational genres or other demographic selections than they do. If this study had quantitative distribution of formats as its main focus, the data investigated, and the number of OISR cases in the data would have to be increased. Also, several parameters would have to be corrected for. There is, as mentioned, a vast skewness in gender among the participants (11 men, 5 women). There are three all-men conversations, two mixed and only one all-women conversation. Another inconsistency is that five of the conversations have three participants while one has six. As noted in Section 3.1, one major difference between three and more interlocutors in a conversation is that more than three allows for schisming conversations (Egbert, 1993). Schisming conversations make it impossible for everyone to perceive everything going on around the table (especially for a language in the visual modality, Skedsmo, in press) which again prepares the ground for misunderstandings, entering repairinitiations (see Section 3.1) and generally less common focus. The ten-minute extract from the conversation with six participants contains 30 cases of OISR, while the amount of cases in

the five other extracts spans from 10 to 22 cases, with an average of 16.4 cases. Without additional examples of conversations with differently sized groups, it is impossible to state whether or how the number of participants correlate with the emergence of repair-initiations.

While the numerical breakdowns are helpful for giving insight into distribution, the bulk of the study is qualitative and relies on detailed transcripts of conversational data to provide the reader with the necessary access to the basis of the analyses. These transcripts will be discussed in the next section.

3.7 Transcription and other modes of presentation

The preferred mode for displaying, and to a large degree also for *analyzing* (spoken) conversational data within the tradition of CA, is the Jeffersonian transcript (Jefferson, 2004). These conventions allow for close scrutiny of such features as pronunciation, audible breathing, laughter, intonation, speed, volume, and quality of voice as well as the timing of overlaps, pauses etc. Jeffersonian transcripts tend to be relatively intelligible for readers who know the basic coding conventions and have a certain familiarity with spoken American English, since they often approximate pronunciation (see Extract 17, below).

Extract 17: CA transcript with phonetic approximation. Originally Extract 4 (Jefferson, 1979, p. 81)

The preferred font is Courier New, since this traditional typewriter-font has a fixed width, which is convenient for aligning text and other symbols vertically. The approximation of pronunciation, without resorting to phonetic (IPA) transcription serves the mean of accuracy while it to some degree also decreases the readability. Jefferson (1996) urges for precision and warns against carelessly applying stereotypes like transcribing Danish or German accents of English with all instances of "of" transcribed as "off". This specific kind of risk is obviously not so much present when transcribing a signed language, while the sign-by-sign display ("glossing") certainly involves the hazard of presenting signing participants as less than proficient language users.

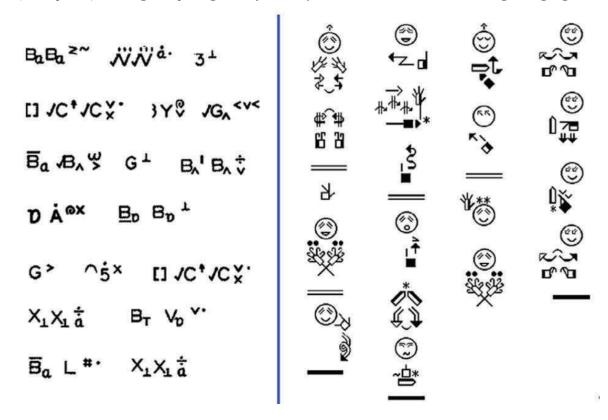
The Jeffersonian transcript's level of accuracy in displaying pronunciation, prolonging/omission of sounds and words etc. has not yet been developed for signed languages. The following subsection gives a brief presentation of some traditions for transcribing or presenting extracts of signed languages for scientific publications.

3.7.1 Transcribing signed languages

Signed languages are visual languages with no conventional written form (see e.g., Sutton-Spence & Woll, 1999). Research on, and presentations of, signed languages have made use of more or less agreed-upon conventions for graphic representation, though. These can roughly be divided into two main groups; phonetic⁸ and glossed transcripts. Phonetic transcription conventions developed for signed languages display the smallest meaning distinguishing units with graphic representations and include Sutton SignWriting, Stokoe notation (see Extract 18 for example), and HamNoSys (Stone & West, 2012). Phonetic transcripts often display standardized symbols representing handshapes, hand orientation, location, actions and non-manual components like upper body movement, facial expressions, mouth gestures etc. Among the advantages of phonetic transcripts is that they display pronunciation and can be used for dictionaries and educational purposes, sometimes without involving another (written) language. A disadvantage is that they require special skills (and sometimes equipment) to write and to read. They have been developed and used in different scientific environments and the number of competent users is limited.

⁸ Terms like "phonetic" and "phonology" applied to signed languages seems inapt to some, as "phono" refers to sound, but these categories are widely used also within the field of signed language research. A search in Academic Search Ultimate with "Sign Language" AND "phonology" gives 186 results (December 4, 2020).

Extract 18: Example of Stokoe Notation (left) and Sutton SignWriting (right), from Hoffmann-Dilloway (2011, p. 348) showing the opening lines of the story about Goldilocks in American Sign Language



The other type of transcription methods are alphabetical or glossed transcriptions in which each sign is represented by words from a written language, conventionally presented in upper case in their uninflected form (Johnston, 2010; Rosenthal, 2009; Supalla et al., 2017). Glosses say nothing about the shape of the signs. However, to different degrees, glossing can include prefixes or suffixes (often abbreviations) to indicate how signs are modified for directions(s), negation, with nonmanual markers etc.

The glossed transcripts in this thesis draw on both Jeffersonian transcripts, and traditions from research on signed languages (e.g., Coates & Sutton-Spence, 2001; Crasborn, 2014; Rosenthal, 2009; Vermeerbergen et al., 2007). For transcribing signed languages, multilinear transcripts are often used, with separate lines showing different articulators (both hands, mouth, eyebrows etc.) (Hepburn & Bolden, 2012). In these contexts they are sometimes referred to as "music-score transcripts" (see e.g., van Herreweghe, 2002; Manrique, 2016, 2017; Napier, 2007). Each numbered section of my multilinear transcripts consists of three "sublines" or *tiers* (Pfau, Steinbach, & Woll, 2012). I will refer to the different sections as "lines",

with tiers. The first tier in a line contains line number, pseudonym for the particular participant and "Gaze". This upper tier displays the direction of the visual attention of this participant. Gaze is mainly notated with the pseudonyms of the other participants that somebody looks toward, or other directions like "forward", "papers", "own phone" or even "shut". The duration of the gaze, relative to the participants' signing, is displayed with dashes (e.g., "Ben-----", cf. Mondada, 2019b) The dashes may continue into the next line.

The second tier starts with "Sign". This tier displays manual signs, glossed in UPPER CASE LETTERS. Because the signs are glossed with English words in their uninflected form, this tier also partially serves as a parallel to the morpheme-by-morpheme glossing which is displayed between a transcription of a spoken, non-English language and a more idiomatic English translation (Hepburn & Bolden, 2012; see Section 3.6.2). Non manual gestures and bodily behavior like nodding or shaking one's head, are also noted here, with lower case letters in brackets. Significant mouthings (Bank et al., 2015), like mouthed words or other mouth gestures, which convey communicative actions by themselves, without accompanying a manual sign or other clearly communicative manual signal are also notated this way. Holding the last part of a sign is shown with an underscore after the sign ("SIGN_______", cf. Groeber & Pochon-Berger, 2014). The underscore (hold) may also continue into the next line.

In Jeffersonian transcripts, overlaps are usually marked with square brackets. In the multilinear transcripts of multiperson conversations it is sometimes difficult to see the overlaps clearly across all the lines and tiers. Often there are several "overlapping overlaps" as (sometimes schisming) utterances from various interlocutors occur more or less simultaneously. I experimented with square boxes framing the different overlapping parts across the lines. This more often than not resulted in the transcripts becoming more cluttered and the readability was decreased rather than increased. Instead I started using grey backgrounds, grouping a set of simultaneously occurring lines together into "blocks". In some stretches an interlocutor's transcribed action is merely their gaze directions. In others, there might be overlapping signing, facial expressions, or other communicative behavior. These actions (but not the translations of them) are consistently vertically aligned in relation to each other, showing what came first, last and simultaneously – without any other marking (like e.g., square brackets), as shown with the utterances of Ben (43), Abe (45) and Finn (46) in the upper "block" in Extract 20.

Extract 19: Example of multilinear transcript from Skedsmo (in press)

```
Gaze: Carl--front------
        Sign: {ca (cl)flat hand right TAP-bottom part of right hand
        Trns: You tap down here and
44.
   Carl Gaze: Ed---Abe(possibly Ben and/or Ben's signing)------
45. Abe Gaze: Carl----own signing-----Carl-down right
        Sign: CAN {ca:hold_object_while_thumb_contracts_sideways}
        Trns: you can swipe sideways with your thumb.
    Finn Gaze: Carl------Abe------Abe------
46.
        Sign: TRY YOURSELF (points at Carl with whole arm stretched out)
        Trns: Try it yourself!
        Gaze: front-----down left
47.
        Sign: (cl)flat_surface_moving_up TAP-high SWIPE-down
        Trns: a menu comes up, then you tap at the top and swipe down
48.
   Carl Gaze: Ben-----down front
49. Abe Gaze: down------Carl
        Sign: LOOK (picking out his phone from his pocket)
        Trns: Look.
```

(19 lines omitted)

```
Carl Gaze: Ben-Abe's phone-Abe----own phone-Abe-----
68.
         Sign: FACE-TIME(neg)
                                            (points to own phone)
               It's not FaceTime
         Trns:
    Abe Gaze: ----Carl-----own phone------Ben---
69.
                              LOOK POINT (phone)
         Sign:
         Trns:
                              Look here...
70. Ben Gaze: -Carl-----own phone-Abe-----
                                           (reaches to/touches Abe)
        Sign:
71.
    Ben
        Gaze: Abe----own phone--
         Sign: POINT(Carl) MEAN POINT(Carl) FACE-TIME HOW TURN CAMERA
         Trns: He's asking how to turn the camera in FaceTime.
```

While pointing toward self is plainly transcribed as "I", other pointing gestures (Cormier, Schembri, et al., 2013) with pronominal or prepositional function (lines 69 and 71) are transcribed as "POINT" followed by bracketed information regarding the kind of referent the pointing refers to, like "(they)" or "(there)". Since there are more than two people taking part in the conversations, pointings that are translated into "you" or "he" are transcribed with the pseudonym of the person pointed at, as for example "POINT(Carl)" (71), to avoid confusion.

In line 45 in Extract 20 (above), in Abe's "Sign"-tier, the first sign is a lexicalized sign, annotated as CAN. Then follows a stretch in curly brackets, starting with "{ca:". This indicates

that what is inside the curly brackets is expressed using *constructed action* (Cormier, 2015; Cormier, Smith, et al., 2013; Ferrara & Johnston, 2014; Winston, 1992). In other words, Abe withdraws from mutual gaze with his interlocutor and "acts out" that he is holding an object in his hand while contracting his thumb (swiping) sideways. In this context it is clear that the (imaginary) object is a smartphone. It is challenging to give these constructed actions descriptions that do justice to their richness in detail and at the same time are short enough to fit into the transcript. Another abbreviation in the multilinear transcripts is found on both line 43 and 47, namely "(cl)" before a stretch of words in lower case, tied_together_by_underscores. This means *classifier sign* (Emmorey, 2003) such as a handshape representing a physical or metaphorical entity, like a smartphone display (43) or a menu of pop-up buttons in iOS (47).

All transcripts are selective (Duranti, 2006), as are indeed also video recordings (Heath & Luff, 2012b), and there is no generic convention defining which phenomena caught on a video-recording should be transcribed, and with what level of granularity (Deppermann, 2013). Transcripts describe what the transcriber chooses to focus on (Mondada, 2007), depending on what the participants orient toward (Deppermann, 2013). If alternating signing with left and right (or dominant and non-dominant) hand is relevant, the two hands' actions must be transcribed on separate tiers. Different communicative conduct, such as raising and lowering of eyebrows, nodding, mouth gestures, eye blinking, etc. can all be given dedicated tiers, increasing the accuracy and space taken up, and decreasing the readability. Different transcripts of the same extract can be used for different purposes, and for presentation in a book, article or lecture, choices must be made regarding what to focus on (Heath et al., 2010).

The third tier in each line of the transcript presented here is called "Trns" which is short for "translation". These translations are relatively close renderings in English of what is signed. Regarding the translation, my experience as a signed language interpreter is both a blessing and a curse. The concern to render the utterances propositionally correct is just one part of it. Another is the awareness that many potential readers, also scholars, may on some level of consciousness presuppose that signed languages are not "proper" languages, and even that deaf people suffer from certain cognitive shortcomings (Rosenthal, 2009). Hence it is desirable to render idiomatic NTS in idiomatic English, to avoid reproducing stereotypes like old comic's presentations of indigenous people (Sheyahshe, 2013). There is always a risk of overcompensating with such motivation and forget that idiomatic talk in informal face-to-face in-

teraction is not anything like idiomatic written (and edited) text. Features like hesitation, stuttering and the occasional grammatical anomalies should be reconstructed in the translations. Still, for a reader unfamiliar with multilinear transcripts and the signed language on display, an idiomatic English translation compared to a stripped-down glossing of signs, might give the impression of an over-interpretation, if not elaborated on. A raising of the eyebrows and a single, sideways head tilt in a specific context could equivalently be translated into a turn-final hedging like "...but I don't know..." or a turn-initial "Yeah, sure, but...". A gesture like that in a spoken language conversation could be understood in the same ways, but would probably be described instead of translated. The boundaries between what is considered verbal and non-verbal is traditionally stronger and more set in spoken language linguistics, probably due to the 2500 years of focusing on written language in linguistics (Allwood, 1996). But the separation between language and (other) bodily signals has been heavily challenged by those researching embodied interaction (Aarsand & Melander, 2016; Goodwin, 2007; Greer, 2015; Hjulstad, 2017; Mondada, 2011, 2013, 2019b; Nevile, 2015; Streeck et al., 2011). It is important to stress that a translation tier in a transcript or annotation is for comprehension purposes only and is not an object of analysis.

The multilinear transcripts in this study share many characteristics with those used in other multimodal research (see e.g., Mondada, 2019a, 2019b; Sikveland & Ogden, 2012), and an attempt has been made to strike a balance between them being sufficiently accurate and inclusive enough for the reader to review my analyses, and being selective enough for the reader to be able to navigate through them and see what I want them to see. The multilinear transcripts' reliance on glossing is, however, problematic, and this will be addressed in the next subsection.

3.7.2 The problems of signed language glossing

Multilinear Jefferson transcripts are necessary when a single line of transcription is not enough to provide the reader with sufficient information. This is not only the case with signed languages. Multilinear transcripts are also used for spoken languages when there is a focus on embodied resources employed in interaction (see e.g., Heath et al., 2010; Heath & Luff,

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⁹ In the editing process of a book I once published, with transcriptions of spoken (Norwegian) conversations (Skedsmo, 2007) a proofreader accused me of presenting my participants as "idiots", by displaying their talk unedited.

2012a; Heath & Luff, 2012b; Mondada, 2011, 2018, 2019a, 2019b). Another reason to employ multiple lines for each utterance or turn, is that the language of investigation is another than that of the publication. In these cases, we normally find one line of transcription of the original language, then a line of glossing (Nikander, 2008; Pizzuto et al., 2013; Sallandre & Garcia, 2013). This glossing is a morpheme-by-morpheme representation of the words and functions of the original utterance, translated into the language of the publication, enabling the reader to follow the form and functions of the original language without understanding it. Conventions for glossing are described in "The Leipzig Glossing Rules" 10. One significant difference between the glossing of spoken languages and the glossing recurrently used for signed languages (Crasborn, 2014; Pizzuto et al., 2013) is that the glossed transcripts of signed languages often use the glossing as the *only* display of what is signed. This way, what for spoken language transcripts serves as a semi-translation, in signed language transcripts serves as a transcription of the language itself. The glossing tradition is criticized for being assimilationist due to its emphasis on structural commensurability with spoken languages, thus disguising fundamental structural differences. (Pizzuto et al., 2013; Sallandre & Garcia, 2013). Stretches of signing that contain few or no lexicalized signs, but rely on non-manual markers (Valli et al., 2011), classifiers, and constructed actions are problematic to gloss in a consistent and comprehensible way while also avoiding too spacious transcripts. Glossing, with its lack of information about the form of the signs also fails to provide readers who know the particular signed language the opportunity to reconstruct the original form of the signing (Pizzuto et al., 2013). The following subsection will discuss alternatives to these kinds of transcription.

3.7.3 Alternatives to glossing and phonetic transcription

Glossing of signs says nothing about how the signs are actually produced, in other words, what they look like. Phonetic transcription methods can provide a high level of detail, conveying precise identification of the signs and how they are articulated, but a severe challenge so far is, as mentioned, the rather limited number of competent users. A much used solution is to combine glossing with photo sequences (see e.g., Ferrara & Hodge, 2018; Hodge et al., 2019;

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¹⁰ The Leipzig Glossing Rules: Conventions for Interlinear Morpheme-by-Morpheme Glosses, ed. by the Department of Linguistics of the Max Planck Institute for Evolutionary Anthropology (Bernard Comrie, Martin Haspelmath) and by the Department of Linguistics of the University of Leipzig (Balthasar Bickel), http://www.eva.mpg.de/lingua/resources/glossing-rules.php, Leipzig, 12. Sept. 2008

Manrique, 2016). Depending on the temporal granularity (i.e., the number of pictures shown per second of video), such displays can show great detail of the pronunciation of signs, durations relative to other actions, overlaps etc. Photo sequences can also, to a certain degree, meet the demand of Pizzuto et al. (2013) of allowing the reader to reconstruct the original signing.

In the process of transcribing conversational NTS data for this thesis, I took the photo sequences format a substantial step further, and created *graphic transcripts* (Laurier, 2014, 2019; Wallner, 2017a, 2017b, 2018), as shown in Extract 21¹¹. These graphic transcripts are discussed in the third article (Skedsmo, in press), where they are suggested as a supplement or an alternative to both the Jeffersonian based, glossed transcript and phonetic transcripts in cases where the research questions call for an improved insight into visual features like facial expressions, bodily poses and movements, etc.

To evaluate the adequacy of a transcript's design it "must be based on specific research goals and particular research questions" (Duranti, 2006, p. 307). The graphic transcripts in the third article were designed for a small-scale investigation of gaze directions. The research question for this "trial study", embedded in the third article, is about how trouble occurs when interlocutors respond to utterances (partly) produced when they as the recipient were looking away. This research question is interactional, rather than linguistic, and the grammar or phonetics of the NTS utterances are not in focus. Therefore, the utterances were represented as translations into English in the graphic transcript. For other research questions other formats could be chosen, like glossed or phonetically transcribed signed languages. Both video files and multilinear, glossed transcripts are available from OSF.

The pictures in the graphic transcripts instantly provide contextual aspects like seating arrangement, physical environment etc. – information which in a written transcript must be described or discarded as less relevant.

The comic-strip inspired graphic transcript in the third article is designed with panels separated by gutters, speech bubbles, caption boxes and drawn resources like arrows and curved motion lines. Comics have complex and specialized conventions, but typically come without a

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¹¹ The example of a graphic transcript is intentionally listed as an "Extract" and not as a "Figure", even though it is graphic material, to highlight the textual aspect. It is not to be seen merely as a photo sequence, but as an excerpt of a (graphic) transcript.

convention chart or a manual of how to read them (Eisner, 2001; Laurier, 2014, 2019; McCloud et al., 1994). As opposed to the conscious training often invested in learning to read Jeffersonian and phonetic transcripts, the skills of comic-reading are usually tacitly acquired, more like the by-exposure acquisition of language.

Extract 20: Example of graphic transcript from Skedsmo (in press)



The comic-strip based graphic transcripts in the third article use a spatial arrangement of the speech bubbles to render approximately how different utterances are distributed in time, and whether they are produced (partially) overlapping, like in Extract 21 above. Carl's utterance "But that annoying update" in panel 1 is placed highest in the panel, and the other bubbles are placed lower, indicating approximately which parts of Carl's utterances they overlap with. Each panel has a set of black boxes in their upper left corner, showing panel number, the corresponding lines of the multilinear, glossed transcript they refer to, and the time code where the frame-grab was retrieved from the videoclip.

A photo-based graphic transcript, as the ones made with frame-grabs from video data, gives very limited possibilities for anonymizing the participants, which will be discussed in Section 3.8.3. Even less anonymous, but offering extensive transparency regarding the reader's access to the research data, is the option of inviting readers to review the video data themselves. As described in the following subsection, several online journals facilitate this by offering options for sharing video clips.

3.7.4 Video clips in articles

Especially when the reader of a publication knows the language that is studied, being able to see or hear the actual data is valuable. Presenting the video data themselves directly to an audience, can be done in live presentations and in the text in web-based journals with an HTML interface like *Social Interaction - Video-Based Studies of Human Sociality* (see e.g., Skedsmo, 2020b). Online journals without the possibility of embedding video clips, like PDF-based

journals, can provide links to external file sharing services like OSF¹² where readers can download or stream video clips and other supplemental material. Video data has been made available for all three articles in this thesis. Still, readers may possess little or no proficiency in NTS. I have sought to bridge that gap by subtitling the videos in Movie Maker. For the first article (Skedsmo, 2020b) I offered two versions of each video extract. One in full-speed, and one in half-speed. Both are subtitled with English translations, retrieved from the multilinear transcripts. For a live presentation at the SALC7¹³-conference in Aarhus, May 2019, I also experimented with having the half-speed video subtitled with NTS glossing. Such modes of data presentations can provide readers and audiences with increased access to the same data as the researcher, and an enhanced insight into the data that a transcript alone cannot efficiently convey.

Such transparency of course has its ethical challenges, which will be discussed in the next section.

3.8 Advantages and disadvantages of collecting and publishing corpus video data

Even though the recognition of, and scientific interest in NTS has grown during the last decades, the language is still largely under-researched. In several other countries, such as Sweden, Australia, the UK, the Netherlands, Germany and Australia, great efforts have been made to collect and prepare digital corpora of their signed languages. These corpora are, to various degrees, "complete", meaning that numerous video recordings have been archived, edited, catalogued and annotated, so that they are machine-readable, searchable and, by use of applications like ELAN, can generate transcripts, statistics of frequencies etc. (Johnston, 2010).

The following subsections will discuss some of the various advantages and disadvantages of corpus data. Among the advantages, sustainability and utility will be highlighted, and among the disadvantages, the collection and sharing of corpus data will emphasize challenges related to anonymization and general ethical considerations.

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¹² https://osf.io/

¹³ Seventh conference of the Scandinavian Association for Language and Cognition.

3.8.1 Sustainability and utility

There are many advantages with a conversational corpus. One of them is that the data can be made accessible for several researchers, both for cooperative research and peer-reviews (Johnston, 2010). Another major benefit is that when a sufficient number of samples have been included in the corpus, the need for collecting additional data for new research projects is drastically reduced. The deaf NTS minority generally appreciates the scientific efforts and gains made by a growing number of NTS researchers and students, but some have reported that it is challenging and time demanding to participate in the various collections of data which have typically been used for one study and then destroyed. A conversational corpus, ideally covers a large variety of genres, demographic variation, includes both dyads and multiperson conversation etc. It can be used for investigating a variety of scientific areas, such as grammar, sign frequencies, pronunciation, turn-taking and different kinds of conversational and interactional features for several studies, by numerous students and researchers for many years. These advantages do not come without costs, though, some of which will be discussed in the following subsections.

3.8.2 General ethical considerations

At the time when work on this study of OISR in NTS started, there was a pilot NTS corpuscollection project in the making (Ferrara & Bø, 2015), and it was desirable for me to contribute to this work by being able to offer my video data for inclusion in the NTS corpus. I therefore submitted an application to the Norwegian Centre for Research Data (NSD) asking for permission to get informed consent from participants to use non-anonymized video recordings (and stills retrieved from videos) for presentations and publications, share the data collection with other researchers and students and store the data for one hundred years. The request was approved (see Appendix 7, application to NSD and Appendix 8, approval from NSD).

Building an NTS corpus that can be made available for many researchers obviously has certain challenges regarding data protection. Uncensored photos and video recordings are considered personal information and being deaf is often considered health related information. The participants in this study have given informed consent to participate, knowing that the recordings can be made available to other researchers and students, and that videos and pictures of them will be published and presented (see Appendix 9, consent form, and Appendix 10, letter to participants about consent for publishing video data.)

Despite this generous consent from the participants, allowing them to be obviously recognizable to those who know them, there are no parts of video-extracts, pictures or transcripts in this thesis that present their real names, as their personal identities are not relevant for the research.

The next subsection will elaborate on possibilities and limitations regarding anonymization of video data for signed language research.

3.8.3 Anonymization

There are numerous ways to anonymize pictures and video clips, frequently employed by publishers of CA and ethnomethodological research (See e.g., Marstrand & Svennevig, 2018; Mondada, 2019b; Willemsen et al., 2020 for examples). However, hiding, blurring or pixelating the interlocutors' faces and other recognizable features would make the NTS video data useless as it would simultaneously decrease the possibility to discriminate crucial facial actions, mouth gestures, gaze directions etc. (Crasborn, 2010). Otherwise the anonymizing will appear as symbolic, rather than effective (as in Coates & Sutton-Spence, 2001). The graphic transcripts in Wallner (2017a, 2017b, 2018) are anonymized by tracing the participants' hands and faces in *Sketchbook* photo editor, turning them black and white, and making them appear drawn. Such editing could probably retain and potentially even enhance the demonstration of facial and manual details if conducted on signed language footage, but would most probably not prevent members of the NTS society from recognizing the participants.

The NTS minority is a small and vulnerable environment where "everyone knows everyone". The fact that the participants have given their informed consent for photos, video clips and transcripts to be published without anonymizing does not eradicate the researcher's responsibility of treating them with respect. Presenting trouble-solving does inevitably involve presenting trouble, and especially trouble of understanding can be face-threatening. Decontextualized extracts of a conversation may be seen by readers or audiences as interlocutors showing rudeness, revealing incompetence, or otherwise acting inappropriate, which can be embarrassing for the participants themselves, their friends, or their family. The researcher must thus balance the value of a clear example against the potential cost of exposing the persons participating in it.

The participants are given short English pseudonyms, starting with A (e.g., Alf) for the one seated to the far left, and then following the alphabet around the table (e.g., Bo, Cyd, and

Dean). Also, the occasional reference to other people not present, whose privacy must be respected, has been altered to pseudonyms and published video clips have been manipulated to hide their identity.

4 Results

Findings from this study of other-initiations of self-repair (OISR) in Norwegian Sign Language (NTS) support a pragmatic universals hypothesis over a pragmatic diversity hypothesis (Dingemanse et al., 2015, p. 2), suggesting that even though languages are different in their grammars, phonetics and modalities, there are certain pragmatic and interactional practices that are conducted in quite similar ways across languages, and that the handling of trouble in communication is one of them. The initial mapping of repair-initiations in the six ten-minute extracts from different informal, multiperson NTS conversations revealed a distribution of formats and subtypes of repair-initiations, coherent with those found in other languages in the comparative works published in Dingemanse and Enfield (2015/2016) and other publications related to that comparative project (e.g., Dingemanse et al., 2014; Dingemanse et al., 2015; Enfield, 2017; Enfield et al., 2013; Manrique & Enfield, 2015). All formats and subtypes of repair-initiation discussed in Schegloff et al. (1977) and in Dingemanse and Enfield (2015/2016) were found also in the NTS data, except formulaic or apology-faced repair-initiations (like e.g., "Pardon?" or Excuse me?"). That does not mean that they do not exist in NTS, but indicates that they are rare in informal conversation, as they also are in other languages (Dingemanse & Enfield, 2015/2016; Laakso et al., 2019).

The sections of this chapter will briefly present results of the study. First come findings from the qualitative and quantitative examinations of the distribution of formats of repair-initiation in NTS (Skedsmo, 2020b). Then results from the study of multiple sequences of repair-initiation will be presented (Skedsmo, 2020a). Finally, the experiment with offering an alternative to the traditional, glossed transcripts of signed language data will be reported (Skedsmo, in press). For more specific details around these results, see the individual articles.

4.1 Distribution of OISR formats in NTS

Among the central findings of this study is that OISR in NTS seems to be conducted in ways very similar to other languages, both regarding formats and preferences for the distribution of these. The high occurrence of non-manual, or embodied repair-initiations among the OCRIs may very well be a result of the methodological approaches obviously necessary when examining interaction in a signed language, focusing on visual features such as facial expressions, head movements and forward leans.

The numerical breakdowns of the distribution of formats revealed a striking consistency with Argentine Sign Language (LSA), which is the only other signed language that has been thoroughly investigated (Manrique, 2016, 2017; Manrique & Enfield, 2015). Findings related to the implicit, or off-record freeze-look repair-initiation in NTS (Skedsmo, 2020a, 2020b) were also coherent with the findings from LSA (Manrique, 2016, 2017; Manrique & Enfield, 2015). In LSA freeze-look repair-initiations only constitute 10% of the total cases. In the LSA study, they are, however, delimited to occurring "immediately after a question by the other person" (Manrique & Enfield, 2015, p. 4) or "especially after a question has been asked" (Manrique, 2016, p. 31, emphasis added). In the NTS data the freeze-look repair-initiation practice is also found following non-question FPPs, such as statements or requests calling for a response, and also subsequent to SPPs soliciting for a receipt or "post-expansion" (Schegloff, 2007, p. 59; Stivers, 2012, p. 198). Freeze-look repair-initiations constituted 25% of the NTS cases. The distribution is shown in Table 1:

Table 1: Distribution of formats and subtypes of OISR in the NTS data (Skedsmo, 2020b, Section 4, "Quantitative distribution of formats and subtypes of repair-initiation")

Explicit/implicit	Subtype	n=112
Explicit	Non-manual	10 (9%)
Explicit	Question word (what)	1 (1%)
Implicit	Freeze-look response	28 (25%)
Total open-class repair-	39 (35%)	
Explicit	Request for specification	10 (9%)
Explicit	Candidate offers	63 (56%)
Total restricted repair-i	73 (65%)	

Table 1 shows the distribution of the different formats and subtypes of OISR in the NTS data as number of occurrences and as percentages of the total 112 cases. All categories are explained and exemplified in the article, and the distribution compared to other available findings from spoken languages and from LSA (Skedsmo, 2020b).

The distribution of formats and subtypes shown in Table 1 are numeric results from using the coding schema collaboratively developed for the comparative study published in Dingemanse and Enfield (2015/2016). The second article, about multiple OISR (Skedsmo, 2020a), also used mixed methods, by both qualitatively examining the different ways that repair-initiations in multiple OISR sequences are interconnected, and by combining the numeric findings in new ways to reveal how different formats and subtypes of repair-initiation are positioned

within the multiple sequences. The next section will sum up the main results of the second article.

4.2 Qualitative and quantitative findings about multiple OISR sequences

One prominent finding from the quantitative investigation of the findings was the large number of OISR cases occurring in clusters of repair-initiations, in other words, multiple OISR sequences (Alzaidi, 2016; Schegloff, 2000b). This was unexpected, as multiple OISR sequences have previously been suggested to be infrequent (Schegloff, 2000b). Kitzinger (2012) even explicitly claims that OISR is "very effective at resolving troubles of speaking, hearing and understanding, and [that] intersubjective understanding is overwhelmingly achieved after a single repair sequence" (p. 252). Out of the 112 individual repair-initiations in the data, only 36 were such "single cases" where a single repair-initiation led to a single self-repair which restored the progress of the conversation (Skedsmo, 2020a). The rest of the repair-initiations were found first or last or elsewhere in a multiple OISR-sequence. In the NTS study the referentially stronger – more restrictive – formats of repair-initiation tend to occur toward the end of a multiple sequence, and especially as the last repair-initiation that closes the multiple sequence by restoring the progress of the conversation. This increase in referential strength in subsequent repair-initiations, referred to as referential upgrading, is well documented (Baranova, 2015; Dingemanse, 2015; Floyd et al., 2015; Manrique, 2017; Manrique & Enfield, 2015; Schegloff et al., 1977). In the NTS data there were no examples of "referential downgrading", but a few examples from the literature Kendrick (2015b, p. 177; Oloff, 2018) are discussed in the second article (Skedsmo, 2020a)'. Such "referential downgrades", where the scope of the repair-initiation is opening up instead of narrowing down, call for the relevance of other preferences than the "strongest initiator rule" (Clark & Schaefer, 1987) and the preference of referentially stronger repair-initiations in subsequent positions (Schegloff et al., 1977). Relevant alternative preferences can be the one of "least collaborative effort" (Clark & Brennan, 1991; Clark & Schaefer, 1987; Dingemanse et al., 2015, p. 2) or a "preference for the least serious construal of problems" (Svennevig, 2008, p. 9).

Anything in a conversation can become a trouble-source (Schegloff et al., 1977), even a part of an OISR sequence, as is the case in a multiple OISR sequence. A central part of the investigation of multiple OISR sequences was to map to which one of the three parts of an individ-

ual OISR sequence the next is connected. Approximately half of the subsequent repair-initiations target the same trouble-source as the prior repair-initiation did. Almost the same amount of subsequent repair-initiations target the (failed) self-repair as its trouble-source, constituting what Lerner & Kitzinger (on self-initiated self-repair) refer to as a "two-step repair" (2007, p. 536), and later as "cascading troubles" (Lerner & Kitzinger, 2012, p. 112; Lerner et al., 2009). Only two subsequent repair-initiations target the prior repair-initiation as the trouble-source, which necessarily means that there is a change in who initiates repair.

Using the numerous categories of the coding schema of Dingemanse et al. (2016), it was possible to determine whether an individual OISR was a single OISR, immediately followed by restored progress of the conversation, or if it occurred as one out of two or more repair-initiations in a multiple OISR sequence. Coding each case as *Single*, or as *First*, *Other* or *Last* in a multiple OISR sequence, enabled me to extract the distribution of the different formats and subtypes of individual OISRs in these four sequential positions (Table 2).

Table 2: Distribution of formats and subtypes of OISR in four different sequential positions (Skedsmo, 2020a, p. 554)

			Total cases	Single cases	First in multiple	Other in multiple	Last in multiple
Format	Explicit/implicit	Subformat	n=112	n=36	n=27	n=22	n=27
Open	Explicit	Non-manual	10 (9%)	4 (11%)	3 (11%)	2 (9%)	1 (4%)
	Explicit	Question word (what)	1 (1%)	0 (0%)	0 (0%)	0 (0%)	1 (4%)
	Implicit	Freeze-look response	28 (25%)	9 (25%)	9 (33%)	8 (36%)	2 (7%)
	Total open-class		39 (35%)	13 (36%)	12 (44%)	10 (45%)	4 (15%)
Restricted	Explicit	Request specification	10 (9%)	2 (6%)	3 (11%)	1 (5%)	4 (15%)
	Explicit	Candidate offer	63 (56%)	21 (58%)	12 (44%)	11 (50%)	19 (70%)
	Total restricted	_	73 (65%)	23 (64%)	15 (56%)	12 (55%)	23 (85%)

Table 2 shows that most of the OCRI subtypes are more frequent as *First in multiple* than in subsequent positions, and contrary, that the farther into the multiple sequence we move, the more restricted the OISRs are. Following Rossi (2015), I combined the categories *Single cases* and *First in multiple* into the new category *First cases*. *Other* and *Last in multiple* were combined into the category *Subsequent cases*, thereby providing a clearer display of the repair-initiations being more restricted in subsequent positions than when they are produced as a first (Table 3).

Table 3: Distribution of formats and subtypes of OISR as first cases and subsequent cases (Skedsmo, 2020a, p. 556)

			Total cases	First cases	Subsequent cases
Format	Explicit/implicit	Subformat	n=112	n=63	n=49
Open	Explicit	Non-manual	10 (9%)	7 (11%)	4 (7%)
	Explicit	Question word (what)	1 (1%)	0 (0%)	1 (2%)
	Implicit	Freeze-look response	28 (25%)	18 (29%)	10 (20%)
	Total open-class		39 (35%)	25 (40%)	14 (29%)
Restricted	Explicit	Request for specification	10 (9%)	5 (8%)	5 (10%)
	Explicit	Candidate offer	63 (56%)	33 (52%)	30 (61%)
	Total restricted	<u> </u>	73 (65%)	38 (60%)	35 (71%)

Table 3 presents evidence of repair-initiations being more restricted in subsequent positions. Among the open formats, the occurrences of non-manual repair-initiations and freeze-look responses are almost twice as many among the first cases than in the subsequent category. The table says nothing, however, about whether they lead to restoration of the progress of the conversation or not. Regrouping the four sequential positions from Table 1 again allows us to compare the cases that are followed by new repair-initiations with those that lead to restored progression. This time, the *Single cases* were combined with *Last in multiple*, constituting the category *Closing cases* while the categories *First in multiple* and *Other in multiple* were combined into *Non-closing cases* (Table 4).

Table 4: Distribution of formats and subtypes of OISR as non-closing cases and closing cases (Skedsmo, 2020a, p. 556)

			Total cases	Non-closing cases	Closing cases
Format	Explicit/implicit	Subformat	n=112	n=63	n=49
Open	Explicit	Non-manual	10 (9%)	5 (10%)	5 (8%)
	Explicit	Question word (what)	1 (1%)	0 (0%)	1 (2%)
	Implicit	Freeze-look response	28 (25%)	17 (35%)	11 (17%)
	Total open-class		39 (35%)	22 (45%)	17 (27%)
Restricted	Explicit	Request for specification	10 (9%)	4 (8%)	6 (10%)
	Explicit	Candidate offer	63 (56%)	23 (47%)	40 (63%)
	Total restricted		73 (65%)	27 (55%)	46 (73%)

The numbers and percentages in Table 4 are not radically different from those in Table 3, but the tables are different in what the numbers represent. Table 3 demonstrates skewed occurrences of open vs. restricted repair-initiations between those that are produced as a first attempt and those that are subsequent attempts. Table 4 displays how many repair-initiations of the different kinds that represent closing cases, meaning that they are followed by a restored progress of the conversation. The skewness in Table 4 is, at some points, slightly more salient than the one of Table 3. We can for example see that while the total cases consist of 65% re-

stricted formats, the non-closing cases have only 55% and the closing cases have 73% restricted repair-initiations. We also see that among the 28 freeze-look repair-initiations in the NTS data, only 11 lead to restored progress.

It could be tempting to deduce from Table 4 that, since some formats seemingly have a higher "clearance rate" than others, they are generally "better", or more efficient than the formats with a lower "clearance rate". This could lead to a formulation of preferences as normative prescriptions about actively choosing restricted formats, like Levinson (2015, p. 394) does. Such empirically supported recommendations could be welcomed by professional language workers, like interpreters who have to minimize their interception of the progress of the conversation between the primary participants by work-ethical expectations (Napier et al., 2010). However, as described in Sections 3.5 and 5.5, reservations against, and necessary preconditions for, applying the results to other contexts or different genres, such as interpreter mediated encounters and conversations involving L2 signers are plentiful.

The work with the general overview of the inventory and distribution of formats and subtypes of OISR in NTS (Skedsmo, 2020b), the more specific study of multiple OISR sequences (Skedsmo, 2020a), and several presentations and discussions of the findings, necessitated finding effective means of presenting NTS data both to competent NTS signers that are not specifically familiar with CA's traditions of transcription, and to colleagues within CA that do not know NTS, or any, signed language. The data needed to be presented in a precise, yet comprehensible way. The following section presents results from these efforts (Skedsmo, in press).

4.3 Graphic transcripts

Studies of face-to-face interaction encompass the need for capturing the flow of signals and practices. They need "preserving in some stable form" (Pizzuto et al., 2013, p. 205) for analyses and eventually for presentation to an audience. Due to the combination of complex sequential trajectories (as those mentioned in Sections 2.7.6 and 4.2), the significance of embodied conduct and the limited number of potential readers that know NTS, there is a need for reviewing alternatives to the glossed adaptions of the traditional Jeffersonian style CA transcripts to present findings from signed languages in comprehensible ways (see Section 3.6).

The photography-based graphic transcript developed in this study is especially convenient for presenting studies with research questions concerning visual and gestural features of conversation. Gaze directions (as in the third article), spoken language gestures and other communicative conduct like interpersonal touch (Marstrand & Svennevig, 2018), interpersonal practices like for example opticians passing spectacles (Due & Trærup, 2018) and probably most features of signed language interaction, are all examples of domains where graphic transcripts could make the data more immediately accessible than both a mere orthographic transcript and photo sequences do. Graphic transcripts are also more likely to be experienced as intuitively comprehensible than other transcripts and generally require no convention chart (McCloud et al., 1994). Graphic transcripts also have the potential of making research on conversation and interaction more accessible to readers who are less familiar with CA and Jeffersonian transcripts.

The speech bubbles of a graphic transcript of signed conversation can contain glosses or other kinds of transcription if the study they are used in is a study of grammatical or phonetical features. If the foci of the study are actions and practices, such as research on gaze direction or sequential trajectories in (multiple) OISR sequences, translations can provide the reader with valuable insight of what actions are being conducted without spacious descriptions. The format of the graphic transcript is flexible regarding its temporal granularity (the number of panels per second of video). In digital publications it is even possible to imagine an *interactive* user interface, which could allow for a flexible interface with choices between phonetic transcription, glossing and translation, according to the reader's preferences (Skedsmo, in press).

5 Discussion

The apparent focus on problems, hiccups and hitches in discussions of conversational repair risks contributing to a view that research on these issues represents some kind of "misery research" (McLaughlin, 2008). A point of departure for this study was a long-time interest in NTS-Norwegian interpreting and managing of trouble of production, perception and understanding among L2 NTS-learners and interpreters (see Section 1). This interest in L2 users' practices and interpreter mediated conversation is still strong, but instead of doing research on L2 signers of NTS and interpreters, I decided that to be able to make empirically valid claims about how conversational troubles are dealt with in NTS conversation, there was no way around investigating representatives of the deaf NTS-signing population themselves. Studying conversational repair is not so much about submerging in trouble, breakdowns, and glitches as it is about investigating practices for achieving and maintaining mutual understanding.

The strategies and practices of conversational repair are acquired as parts of our communicative competence (Hymes, 1972), a notion that covers not only knowledge about what is systemically possible but also what is culturally and situationally appropriate (Courtney, 2011). In this chapter I will discuss some of my findings and highlight certain implications and complications concerning their application to L2 learners of NTS, NTS interpreters and NTS interpreting, since these areas have not been discussed in the articles. Prior to the concluding part, this chapter will also present a small selection of areas where further research is necessary.

The next sections discuss practices of conversational repair, not as symptoms of incompetence and unfortunate fallacies, but rather as parts of interactional proficiency and as a system of securing and achieving mutual understanding. As such, research on OISR in NTS can prove valuable both for teachers and learners of NTS. With some additional studies, this research can also be beneficial to the field of NTS-Norwegian interpreting.

5.1 Applicability to the needs of learners

Strategies for conversational repair represent one set of examples of pragmatic or interactional competencies¹⁴ that are often neglected both in teaching and assessment of language skills (Huth & Taleghani-Nikazm, 2016; Scotton & Bernstein, 1988; Wong, 2002). (Other examples of patterns and preferences that are rarely explicitly addressed to learners of a language could be how members of a linguistic or cultural group expect you to respond to compliments (Golato, 2003), reject offers (Curl, 2006), imply a complaint (Edwards, 2005) or to close a telephone conversation (Schegloff & Sacks, 1973).) An easily available argument for leaving these skills out of the textbook or the course plan would be that the learner will eventually pick up such conventions through interaction, which of course is also the case with any phonetic, grammatical, or pragmatic feature of a language. Looking at L2 assessment tools, such as the International English Language Testing System (IELTS), other-initiation of repair is not described as a skill, but rather a symptom of disfluency. While OISR among L1 users is found to occur every 1.4 minute across 12 languages (Dingemanse et al., 2015), IELTS claim that their top level candidates (level 9; expert user) show "complete understanding". Contrary, in communication with an "extremely limited user" (level 3) there are "frequent breakdowns in communication" (IELTS, 2020). Their tests effectively avoid evaluating the candidates' skills in other-initiating repair. The IELTS Speaking Test does not have mutual understanding as a goal and the testing personnel is only allowed to provide verbatim repetitions when repair is other-initiated (as opposed to rephrasing or explaining if a candidate is signaling trouble of understanding). The test personnel are also trained not to other-initiate repair from the candidate even when their utterances «contain linguistic errors or appear to be incomprehensible» (Seedhouse, 2013, p. 211). Similar to IELTS, The Common European Framework of Reference for Languages (CEFR, Council of Europe, 2018) mentions other-initiations of self-repair ("asking for clarification") in various level descriptions as symptoms of low competence. However, CEFR has "Asking for clarification" as a sub-category of "interaction" (p. 102). OISR skills are not described at the lowest (A1) and highest (C2) levels, but the levels A2,

¹⁴ Kramsch (1986) proposes the concept *interactional competence* as a replacement candidate for *language proficiency*, as this latter concept was too accuracy concerned (Skogmyr Marian & Balaman, 2018). Young (2013) suggests *interactional* competence as overarching *communicative* competence but still incommensurable as a notion, because it cannot be measured by assessing only one person, as it is interactionally achieved. I generally find communication and interaction (and language) inseparable and will, for the purpose of this thesis include rather than exclude.

B1, B2 and C1 have descriptions progressing along a taxonomy of restrictedness. At the lowest level the candidate can "signal non-understanding" and "say he/she didn't follow". At level B2 the skills involve techniques to ask for "further details and clarifications" and also "ask follow up questions to check that he/she has understood". The taxonomy as such demonstrates a growing repertoire of restricted repair-initiations as the candidate gains progress up the levels, but CEFR also raises the demands regarding in what kind of circumstances repair-initiation is accepted. The "follow up questions" at level B2 should be designed to clarify "ambiguous points" and at C1 level the candidate can other-initiate repair to "ensure he/she understands complex, abstract ideas in professional or academic contexts". This implies that at a high level of competence the L2 candidates should not (need to) initiate repair targeting mundane, informal talk, which we know that L1 interlocutors do every 1.4 minutes.

Based on the previous version of the CEFR (Council of Europe, 2001) The European project "PRO-SIGN", has published a general adaption of the CEFR for signed languages, where they present the same taxonomy of restrictedness explained both in written English and in videos showing international sign (The European centre of modern languages of the council of Europe, 2020). In the description of OISRs at the B2 level, which is the highest level with a description of repair skills in the 2001 version, the video explicitly suggest that the candidate can produce candidate offer repair-initiations (alternative questions), demonstrating an extensive grasp of what has been signed.

5.2 Dealing with trouble

Even though trouble is not generally attractive, it inevitably occurs and must be dealt with for the progress of conversation to be upheld. van Arkel et al. (2020) show how repair-initiations reduce the computational costs for conversationalists. Just like backchanneling (e.g., "mhm" or nodding) has been found to improve storytellers' language structure and reduce disfluencies and filler words (Bavelas et al., 2000), Dingemanse (2020) suggests that conversational repair is to language what DNA repair is to life. Statements like these, put the focus on conversational repair as the self-righting mechanisms of conversation (Schegloff, 1992a, 1992b) and not as an indicator of failure. In this perspective, cases of OISR are evidence of negotiation of mutual understanding (Manrique, 2017).

Conversational repair unsurprisingly also occurs in encounters where one or more of the interlocutors are learners or L2 users of the particular language used. Strategies for dealing with trouble are hence obviously important skills for getting along in communicative encounters and for continued learning of the language, not merely as a first aid kit for getting out of trouble. Practices of conversational repair are claimed to be resources both in children's language acquisition (Clark, 2020; Matthews, 2014) and for L2 learners (Lilja, 2014). In conversations between L1 and L2 users the preferences for choosing formats of OISR, however, seem to differ from those in L1-L1 conversation. Kurhila (2006) suggests that candidate offer repairinitiations are overrepresented in L1-L2 conversations, as the L1 user will not put the L2 user in a position where they have to rephrase the problematic turn, and instead offers a candidate which only solicits (dis)confirmation. Other-initiated other-repairs (other-corrections), which are normally dispreferred (Schegloff et al., 1977), are also found to be more common in expert-novice settings like in classrooms (Macbeth, 2004; McHoul, 1990). Unidiomatic grammar or pronunciation is recurrently corrected by use of other-repetitions and candidate offers (Seedhouse, 2004).

We have already seen that the practices of conversational repair seem to be more universal across languages than grammar. This could be understood as L2 learners being able to successfully transfer their L1 repair practices and thus rarely experience difficulties practicing conversational repair in the L2. A challenge is, however, that pragmatics and interactional practices like turn taking and repair-initiation are not always a well-developed part of an L1 user's metalinguistic awareness (Altman et al., 2018). One problem is therefore that we might have difficulties explaining exactly how these practices are idiomatically conducted in our own language. Another challenge is that we tend to imagine the norms differently than they turn out to be in real interaction, which is the topic of the next section.

5.3 Pragmatic awareness and interference

The open-class repair-initiations (OCRI) found in the NTS data are, as already mentioned, overwhelmingly non-manually produced. There is only one occurrence of the sign "WHAT". Facial expressions like frowns, raising and lowering of eyebrows and gestures like head-tilts and forward leans occur one-by-one or together, composing self-sufficient repair-initiations. Such embodied features of repair-initiations are of course also known from spoken language interaction. Embodied actions can accompany vocal repair-initiations (e.g., "Huh?") or they can occur as self-sufficient repair-initiations (Mondada, 2014; Mortensen, 2012, 2016; Seo & Koshik, 2010). We currently have little comparative knowledge about the embodied features

of repair-initiation in spoken languages and the non-manual repair-initiations of signed languages (Manrique, 2017). As the visual modality carries the whole load in signed languages, there are reasons to believe that such self-sufficient embodied conduct, to an even larger degree is treated as systematically produced actions in signed languages than they are in spoken languages. Therefore, a facial expression is probably more likely to be treated as a repair-initiation in a signed conversation while it might be treated as an expression of puzzlement or news-receipt in an analysis of spoken conversation (Seo & Koshik, 2010).

If L2 users draw on their L1 pragmatic skills, this can in some cases lead to pragmatic interference (Huth & Taleghani-Nikazm, 2016). This kind of interference in many ways resembles grammatical and pronunciational interference, but one difference is that it often goes uncorrected (Huth & Taleghani-Nikazm, 2016). Another difference is that the L1 users' intuitions regarding what is pragmatically idiomatic and unidiomatic often are not trustworthy. One example of pragmatic difference between languages is that American English speakers recurrently open telephone conversations by a reciprocally balanced set of greetings. The caller asks how the answerer is doing and the answerer replies and asks how the caller is doing. Then the caller moves to the purpose of the call. German speakers, on the other hand, tend not to do the latter adjacency-pair, where the answerer returns the question about how the caller is. Instead, the caller asks how the answerer is doing, gets a response and then moves directly to the purpose of the conversation they initiated (Huth & Taleghani-Nikazm, 2016). This is one example of communicative behaviors that most users of German and/or American English would rarely be able to give accurate information about based on their experience and intuitions. Another is that L1 speakers of German have been shown to be mistaken about how they respond to compliments (Golato, 2003).

As Halliday and Webster stated, "There is a wide gulf between what people say and what they think they say – let alone what they think they ought to say" (2007, p. 240). This claim seems to hold true also for the practices of repair-initiations. The online L2 tutor site FluentU announces that their services "brings language learning to life with real world videos!" (FluentU, 2020). A FluentU blogpost for teachers of English as an L2 knowingly asks the readers if they are "[t]ired of hearing 'What?!' or 'Huh?' or 'Repeat!'" in the classroom (Harville, 2020). The author advises L2 teachers to explicitly train their students in polite repair-initiation formats. Top listed phrases are "Excuse me" and "Pardon me". They also suggest more extensive phrases like "Could you repeat that, please?" and "Could you say that

slower, please?". Similar advice is reported from language proficiency interviews of first-year students of German. The study describes students being told by the interviewer, as in their textbooks, to other-initiate repair by formal expressions like *Wiederholen, Sie das bitte* ("Repeat that please") or to ask politely for slower speech (Egbert, 1998, p. 155). A numeric breakdown of OISR formats in informal English conversation shows that "Huh" and "What" constituted 81% of the OCRIs while the apology-based ones were only 7.1% (Kendrick, 2015b). The advice from L2 training resources cited above thus indicate that formal training in repair-initiation practices, situated in classrooms, train students in how to direct repair-initiations toward a teacher in a classroom, rather than in the outside world of informal conversations, which we must assume is also a target domain of the training. If both the L2 teachers and the L2 learners believe that using formulaic expressions is the most common way (or at least the most "correct" way) to initiate repair in their own L1s, there is reason to assume that this is also how learners will try to initiate repair in their L2.

5.4 Pragmatic awareness for L2 signers

L2 learners of NTS, who at Norwegian universities to a large degree are interpreting students, are predominantly taught NTS by deaf L1 signers. The curriculum covers vocabulary, grammar and pronunciation, but also various interactional topics relevant to visual-gestural communication like physical positioning of oneself in relation to light sources, avoiding strong backlight, how to manage signing while walking in a street and avoiding walking into lamp posts and tripping into gutters, different kinds of visual and tactile means of summoning etc. I know little about how practices for repair-initiation are approached in the basic training. There is still a profound lack of formal training for NTS teachers, and as already mentioned, NTS is a largely under-researched language. Since there have been no scientific investigations of OISR in NTS before the present study, there are reasons to assume that any training in OISR practices will be depend on the NTS teachers' intuition and introspection. There are also reasons to assume that there is a certain degree of L1 interference involved when L2 learners/signers perform OISR – both stemming from patterns of actual, habitual L1 behavior, but also explicitly learned practices reflecting how they think they (ought to) other-initiate self-repair.

The lack of corpus-based evidence of how such practices are conducted by NTS L1 signers, how they mitigate requests or generally do politeness in different conversational genres, leaves L2 signers to sort these matters out for themselves through observation and interaction.

As mentioned above, interactional and pragmatic disfluencies are rarely targeted as trouble-sources, and L1 users are often mistaken about what is idiomatic. A general observation is that L2 signers often mitigate their requests for repair with the sign SORRY. This is also observed among interpreters between English and Auslan (the majority signed language used in Australian) and is suggested to be instances of pragmatic interference from their spoken English (Major, 2014). Findings from ASL suggest that SORRY is rarely used as a device for mitigation (Hoza, 2007) and five non-manual mitigators are instead found to occur regularly (Hoza, 2008). The NTS data in this study show that out of 112 repair-initiations, none contain a sign like SORRY (Skedsmo, 2020b), and neither do any of the 213 repair-initiations in the LSA corpus (Manrique, 2016, 2017). These findings indicate that when an L2 signer of NTS (or LSA) in an informal situation performs an apology-faced repair-initiation, uses for example a local equivalent of SORRY, it signals not only trouble of perception or understanding, but also pragmatic/interactional disfluency.

Apology-faced repair-initiations in NTS conversation might signal politeness in several contexts, and that the initiator takes the blame for the trouble. We need more corpus data covering a larger variety of conversational genres, preferably with both L1, L2 and mixed groups to verify this. Ethnographic research with interviews of the interlocutors could also reveal if the apologies are considered polite, humble behavior or if they are experienced as alien, impolite or arrogant like Norwegians' unidiomatic hedging when speaking English (Johansen, 2020).

The sign SORRY in Auslan, as the English word "sorry", is multifunctional and can also function as a device for summoning (Major, 2014). The NTS sign equivalent to SORRY (UNNSKYLD¹⁵) is performed with two hands in front of the signer, and often the movement is directed toward the person(s) to which the apology is directed, or the locus representing them. NTS interpreters are often seen initiating repair toward the signing party with a modified version of UNNSKYLD, where both arms are extended/raised, and the movement is exaggerated, simultaneously summoning and apologizing. As mentioned above, no such (or *any*) use of the apology-sign is found among the repair-initiations in the NTS data (Skedsmo, 2020b), and the practice is hence probably experienced as unidiomatic in NTS.

¹⁵ Dictionary entry: https://www.minetegn.no/Tegnordbok-HTML/video_/unnskyld-ning.mp4

For research on OISR in NTS to be generally applicable to NTS interpreter mediated interaction, several additional perspectives and considerations would, however, need to be investigated. The next section will highlight some of those before they are summed up by suggestions for research.

5.5 Applicability to NTS interpreting?

In general, conversationalists decide for themselves whether they wish to signal trouble of perception or understanding. We are principally free to pretend that we understand and to instantly choose among different potential interpretations if we detect ambiguities in utterances. Interpreters at work do not to the same degree have this liberty of choice, as they are expected to commit to work-ethic standards which oblige them to strive for the most accurate and correct translation into the target language. It is also problematic, especially for simultaneous interpreting to withhold a repair-initiation, and wait for later understanding (Nilsson, 2010). In the following I will give a brief presentation of some of the perspectives, angles and complications that need to be attended to if research on OISR in monolingual NTS conversation is to be applied to NTS interpreter-mediated conversations.

A model conversation typically has two interlocutors. Such a dyadic conversation gives room for OISRs in two directions, as shown in Figure 11.



Figure 10: Possible directions of OISRs in dyads

Adding an interpreter as a third person gives six possible directions, as shown in Figure 12.

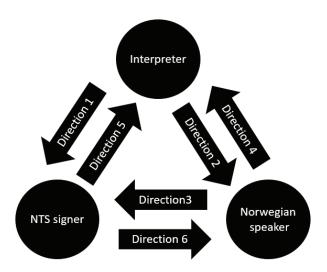


Figure 11 Possible directions of OISRs in triads

Figure 12 shows that in an interpreter-mediated conversation between an NTS signer, a speaker of Norwegian and an NTS-Norwegian interpreter, the possible directions for OISR are:

- 1. The interpreter initiates repair toward the NTS signer
- 2. The interpreter initiates repair toward the Norwegian speaker.
- 3. The Norwegian speaker initiates repair toward the NTS signer
- 4. The Norwegian speaker initiates repair toward the interpreter
- 5. The NTS signer initiates repair toward the interpreter
- 6. The NTS signer initiates repair toward the Norwegian speaker.

While OISR in a multiperson, bilingual conversation indeed is complicated enough, interpreters also need to maintain their position as a mediator and not a primary participant (Haualand & Nilsson, 2019; Wadensjö, 1998a)¹⁶. This brings in a whole new set of complications, which will be addressed in the following two subsections.

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primary participants").

¹⁶ Wadensjö (1998a) refers to the conversationalists in the interpreter mediated conversation as "primary parties". They are here referred to as "primary participants", cf. the use of the term "multiperson" instead of "multiparty", because "party" can denote a group of people and not just one person (Bolden, 2011; Egbert, 1997). This is also consistent with the Swedish version of the book (Wadensjö, 1998b) which uses *primärdeltagarna* ("the

5.5.1 Interpreters initiating repair

If the interpreter summons one of the primary participants to request a self-repair, the interpreter's repair-initiating utterance is a non-rendition (Wadensjö, 1998a) and it must somehow be signaled to the primary participant that this utterance from the interpreter does not represent an interpreted utterance from the other primary participant, but the interpreter talking on their own behalf. Signaling such a change of footing (Crawley, 2016; Goffman, 1981; Lerner & Kitzinger, 2007) is important because interpreters, as outsiders in the situation, often do not possess all the contextual knowledge shared by the primary participants and therefore might be unfamiliar with expressions, facts, references or agreements that are relatively basic for, or even presupposed knowledge for the primary participants. If one of the primary participants gets the impression that it is the other primary participant that is having trouble understanding, it can lead to a devaluation of this person's competence. The ambition to signal the repair-initiations status as a non-rendition is probably the reason for the emergence of standardized repair-initiation phrases where interpreters talk about themselves in third person, like "Excuse me. The interpreter needs to clarify something..." (Llewellyn-Jones & Lee, 2014; Major, 2014) or by stating "Interpreter error", as advised by Stewart et al. (2004, p. 149). Such formats are of course highly specialized and unidiomatic to any other context and the primary participants will probably rarely experience them as "smooth" or natural ways of dealing with trouble in conversation. Another challenge is that when the interpreter addresses one primary participant in that person's language, the other primary participant will most often not understand what is said by the interpreter. Sometimes NTS interpreters approach this either by producing the repair-initiating utterance twice, once in each language, while in other cases the repair-initiation is produced by so called "simultaneous communication" or "simcom", in other words, by signing and speaking at the same time. This is problematic for several reasons. One reason is that "Norwegian sim-com" in most cases will take the form of spoken Norwegian with certain NTS signs added, which is difficult to comprehend for many NTS signers not fluent in spoken/written Norwegian. Another negative consequence of interpreters' resorting to "sim-com" is related to the persistent myth that a signed language is merely a manual version of a spoken language (see also Section 1.1). Hearing participants may hence deduce that "sim-com" is "NTS with sound". Among the consequences of this widespread myth is the risk that Norwegian speaking primary participants believe that NTS

interpreting is a mechanical process, replacing words with signs as a mere change of modality, and see no reason for interpreters to *understand* what they are interpreting, and hence see no reason to put effort into briefing the interpreter about what is going on, explain concepts being used etc. By using "sim-com", the interpreter actively demonstrates that the two languages are the same, and thereby contributes to the reproduction of that myth.

A variant of "sim-com" that can also sometimes be observed is one which follows NTS structure with added vocalizations of selected words that would otherwise be silent *mouthings* (Boyes Braem & Sutton-Spence, 2001). In these cases, uninformed non-signing participants risk getting an impression of NTS as a pidgin language consisting of basic Norwegian words in their uninflected form, reminiscent of broken language or the language of small children. Deaf people still suffer from stigmatization and oppression, and such a representation may deprive NTS signers of the opportunity to present themselves as competent.

These dilemmas are not easily solved solely by interpreters or other professionals. Traditional practices, employing formal phrases as means for marking repair-initiations as non-renditions seem to be preferred over other more subtle embodied ways of signaling the interpreter's change of footing. Llewellyn-Jones and Lee (2009) urge for signed language interpreters to avoid formal phrases and also to actively backchannel to the primary participants during their utterances, and hence position themselves as active participants in the conversation. By doing this, they claim, also OISRs can be produced and resolved in less intrusive ways and to a larger degree go unnoticed by the primary participants. This raises another dilemma, namely whether the interpreter should actively attract the visual attention of the signing primary participants while interpreting their utterances into spoken language, or rather let the signer look toward their hearing interlocutor. Further research is necessary to achieve the knowledge necessary to solve these dilemmas (see Section 5.6).

5.5.2 Primary participants initiating repair toward the interpreter's utterance

When primary participants perform repair-initiations targeting what is uttered in the interpreter-mediated conversation they sometimes address the other primary participant by looking toward them and by using second person pronouns ("Do you mean...?"). Other times their repair-initiations are explicitly addressing the interpreter, both by looking toward the interpreter while asking for example "Do you mean...?" or by the use of third-person pronouns ("Does she mean...?"). In other cases, such approaches are mixed, or there are no pronouns or other

evidence of who the addressee is. In any case, the interpreter has to decide if the repair-initiation is to be treated as targeting the interpreter's rendition of the talk, by repeating or rephrasing some part of the prior talk, or to treat the repair-initiation as any other utterance during the interpreter-mediated conversation by translating and conveying the repair-initiation to the other primary party. These decisions can be assisted by the repair-initiation containing an other-repeat of a specific sign or word that might be treated as unintelligible, unclear or unknown. In such cases, the interpreter may use these cues as evidence when deciding whether to treat the trouble as occurring as a result of the other primary participant's utterance or as a result of the interpreter's rendition. The interpreter self-repairing the problematic without involving the original utterer of the trouble-source turn will again lead to a situation where there is a stretch of conversation between the interpreter and only one of the primary participants, unavailable to the other. NTS interpreter trainees have often been advised to involve the other primary participant by treating repair-initiations by the primary participants as any other utterances and render them to the other participant, even if the interpreter suspects that the trouble is because of an interpreting flaw. Such a procedure might seem dishonest but reduces the number of non-renditions and both the primary participants are kept "in the loop". To translate the repair-initiations as any other utterance is frequently done both in informal situations with participants of relatively equal status and in formal situations like a police interrogation where it is crucial for the mutual trust that all participants are informed about everything that is uttered in the conversation. In settings where dialogue and intervention is less common, like during conference presentations, religious ceremonies or theater performances, it is more likely that the interpreter will try to do self-repairs without involving the original utterer – as it is also less likely that anyone in the audience would direct repair-initiations toward the person on speaking.

The above dilemmas and rather intricate considerations are all described within the frame of an interpreter-mediated conversation populated by only two primary participants and one interpreter. In the real world the participation framework is often more complex. Several interlocutors speaking each of the two languages performing repair-initiations to one another, two or more interpreters correcting and otherwise assisting each other and functioning as brokers (Greer, 2015) if the rendering interpreter (Hoza, 2010) is having trouble interpreting. This

adds complexity to the issues described above¹⁷. A relevant question is also whether interpreter-mediated conversation should have non-interpreted conversation as a gold standard or if it should be seen as so different from non-interpreter mediated conversation that any attempt to approximate idiomatic ways of initiating repair is flawed. Findings from both Llewellyn-Jones and Lee (2014) and Crawley (2016), however, indicate that performing repair-initiations addressing the signing primary participant by use of idiomatic, embodied signals is functional and less intrusive than the fixed phrases and extensive explanations of who is doing what to whom on behalf of self or other.

Attempting to perform repair-initiations in idiomatic ways according to the two languages in play seems just as desirable as attempting to perform any other linguistic, pragmatic, or interactional practice as idiomatically as possible. There is, however, no reason to believe that all aspects and preferences of repair-initiation practices of a monolingual conversation can automatically be adapted to an interpreter-mediated situation. In a well-functioning interpreter-mediated conversation the primary participants will often be focused on each other, and their communicative enterprises (i.e., what they are doing and why), rather than paying close attention to what the interpreter is doing. The floor-holder will predominantly look toward the primary recipient rather than toward the interpreter. For the interpreter to initiate repair toward the signing interlocutor with subtle nonmanual repair-initiations, will often not work as the interpreter will first have to capture the signer's visual attention. A freeze-look repair-initiation will probably not be noticed at all, as the interpreter's back-channeling may not be monitored by the utterer. Also, the timing of the repair-initiation can deviate from that of a monolingual conversation, as the interpreter may attempt to render unproblematic parts before attending the trouble.

The above discussion of complicating factors related to applying research on monolingual conversational repair to interpreter-mediated conversation will in the next section be summarized into a few points, constituting suggestions for further research.

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¹⁷ Figures 11 and 12 showed that a dialogue allows for OISRs in two directions and that adding one more person give six possible directions. Four interlocutors will give 12 possible directions, while for example a group of 10 allows for 90 possible directions, not including the possibility to direct repair-initiations toward a group of multiple interlocutors.

5.6 Suggestions for further research

Among the areas that need more exploration to enable findings on OISR in NTS to be applied to interpreter-mediated conversations, I provide two suggestions for further research.

First, it would be necessary to investigate how changes of footing are made in NTS and in Norwegian in order to prepare interpreters on how to signal to the primary participants in effective, subtle, and idiomatic ways who is addressing whom on whose behalf at any given moment in an interpreter-mediated conversation. Extensive observation and analyses of interpreter mediated interaction could also help mapping different approaches and establishing a "best practice".

Another interesting question is whether (signed language) interpreters target different kinds of conversational trouble than non-interpreting interlocutors in monolingual conversations do. In her investigations of repair in interpreter-mediated, task-based, dyadic conversations in BSL and English, Crawley (2016) extracted ambiguitiy and underspecificity as two major sorts of trouble for the interpreters (see Section 2.8). Double or multiple interpretative potential of ambiguous expressions often go unnoticed by conversationalists (Roland et al., 2006), and underspecificity is a translation problem, but does not seem to be a problem in monolingual conversation.

Interpreting proficiency and linguistic background clearly impacts what interpreters treat as problematic. In a study on interpreting from Swedish Sign Language (STS) into Swedish, Nilsson (2010) found that while L2 interpreters (who learned STS as adults) generally had to stop the flow of STS because they had trouble understanding what was signed, the L1 interpreters (those who grew up in a family using STS) stopped because they needed time to interpret into Swedish. Another comparison shows that L2 interpreters show limitations in their abilities to convey particular embodied metaphors regarding temporal relations of events (Nilsson, 2018). Corpus data including both L1 and L2 NTS signers or indeed L2 interpreters could provide valuable insights into both what the L2 signers target as trouble-sources in NTS conversation and how their repair-initiations are formatted, which would be useful for developing specific NTS training.

6 Conclusions

Practices for solving trouble of communication and achieving mutual understanding represent mundane, yet crucial skills, often tacit and elusive in their nature and rarely explicitly taught. Within the field of conversation analysis (CA), practices for signaling and solving trouble in conversation have been studied in spoken languages, and a few signed languages. This study is the first extensive examination of other-initiation of self-repair (OISR) in Norwegian Sign Language (NTS). The overall aims of this thesis have been to provide knowledge about how different formats of OISR are designed, organized and distributed in informal, multiperson NTS conversation and how conversational data from such research can be communicated in written media, in ways that provide readers with the necessary access to the data in a comprehensible way.

In this study I have collected a corpus of informal multiperson NTS conversation among deaf coworkers, to examine various aspects of these collaborative troubleshooting practices. The OISR cases are analyzed according to formats and subtypes, such as various types of open-class repair-initiations (OCRI) targeting the whole previous turn, and restricted repair-initiations, such as requests for specification and candidate offers. The analyses show that NTS signers to a large degree employ the formats and preferences found in other spoken and signed languages. Both the qualitative examination of formats and the quantitative study of distribution of these formats show general similarity with findings from the spoken languages investigated in Dingemanse and Enfield (2015/2016), and a special resemblance with the findings on Argentine Sign Language (LSA) (Dingemanse et al., 2015; Floyd et al., 2015; Manrique, 2016, 2017; Manrique & Enfield, 2015).

In NTS, as in LSA, a large portion of the OCRIs are produced solely with embodied conduct, in other words, without lexicalized signs (Skedsmo, 2020a, 2020b). Such embodied OCRIs are also identified in spoken conversation (Mortensen, 2012, 2016; Seo & Koshik, 2010) but traditionally ignored or excluded (e.g., Rossi, 2015), treated as "nonverbal" – a distinction that is more problematic, and maybe less applicable, to signed languages (see e.g., Dotter, 1999). Visual conduct is scarcely discussed in the early CA literature (Nevile, 2015). Often, the facial expressions and head/torso movements can be treated as equivalent to variants of the apparently quite global format of "huh"-resembling interjections (Manrique, 2016, 2017),

found in many spoken languages across language typology and continents (Dingemanse et al., 2014; Enfield et al., 2013).

The high occurrence of non-manual, or embodied repair-initiations in this study, probably reflects the methodological approaches necessary when examining interaction in an all-visual signed language. Studies of spoken language interaction in Norwegian also highlight the importance of embodied conduct (e.g., Gudmundsen & Svennevig, 2020; Sikveland & Ogden, 2012). As Manrique (2017) notes, an enhanced focus on visual embodied conduct in research on spoken language interaction, and comparative studies involving both signed and spoken languages have the potential to provide crucial insights into fundamental features of mundane, but still elusive aspects of language, human communication and social interaction.

An early, and notable finding was that there are no instances of formulaic or apology-faced repair-initiations in the informal NTS corpus (Skedsmo, 2020a, 2020b). Neither were there any cases of explicit requests for repetition. Formulaic repair-initiations are found in some languages, but their distribution in informal conversation is generally very low across a large collection of languages (Dingemanse & Enfield, 2015/2016). This is noteworthy because formulaic repair-initiations seem to be widely taught in L2 programs (Egbert, 1996; FluentU, 2020; Harville, 2020; IELTS, 2020) and employed by signed language interpreters (Llewellyn-Jones & Lee, 2014; Major, 2014; Skedsmo, 2018). There are several factors to consider before attempting to apply findings from monolingual conversations to interpreter mediated conversation. The study does demonstrate a need for collecting and analyzing corpus data on practices for conversational repair rather than relying on introspection and metalinguistic awareness. One example of the gains from using corpus data is that the findings indicate that apology-faced repair-initiations and requests for repetition are not common in informal NTS conversation. If L2 signers use them, that may be experienced as unidiomatic, and more intrusive than more common formats.

Among the various formats and subtypes of OISR in NTS, special attention has been given to the implicit OCRI, called *freeze-look* (Girard-Groeber, 2020; Manrique, 2016, 2017; Manrique & Enfield, 2015; Skedsmo, 2020a, 2020b) where addressees maintain their gaze toward the utterer of the prior turn while keeping their face and the rest of the body still, as if not acknowledging completion of the turn. LSA findings suggest that the freeze-look OISR typically occurs after a question (Manrique, 2017; Manrique & Enfield, 2015). The NTS data

show that freeze-looks also occur subsequent to other first-pair parts as well as following second-pair parts, such as answers and other responses which also solicit some kind of responsive action (Skedsmo, 2020b).

Treating these notable absences of action as systematically produced *actions* can be seen as a further development of the stance taken by Seo and Koshik (2010) that unaccompanied embodied conduct leading to self-repair by the other interlocutor, should be seen as self-sufficient, embodied OISRs, instead of being treated as mere emotional facial expressions leading the trouble-source utterer to self-initiate self-repair (Seo & Koshik, 2010). As analysts, we cannot know whether an embodied gesture or a freeze-look response (or a vocal interjection for that sake) is an intentional action aiming to solicit self-repair. It is, however, evident that they are recurrently followed by a self-repair or an upgrade to an explicit repair-initiation. This calls for a reexamination of CA's agnostic relation to intentions (Heritage, 1990). The boundary between considering an utterance *design* and speculating in its *intent* can be unclear. In deviant cases, the next-turn proof procedure (Sacks et al., 1974) proves itself not only to be a handy tool, but also a rather merciless instrument for categorizations and analyses of conversational conduct.

This study has also contributed to the rather under-researched subfield *multiple* OISR (Skedsmo, 2020a). Earlier research (on spoken languages) suggests that single OISRs overwhelmingly lead to immediate restoration of the progress of the conversation (Kitzinger, 2012; Schegloff, 2000b). The NTS data, along with other research on spoken languages like Murrinh-Patha (Blythe, 2015) and Italian (Rossi, 2015), however, demonstrate a high occurrence of multiple OISR, with 68% of the individual NTS cases of OISR found inside multiple OISR sequences (Skedsmo, 2020a). The subsequent repair-initiations differ in how they are linked to the prior individual OISR, in other words, which part of the prior OISR sequence that is targeted by the subsequent repair-initiation. In the NTS data, the majority of subsequent repair-initiations re-target the initial trouble-source, or they target a prior (failed) self-repair, treating this self-repair as unintelligible, inadequate, insufficient, or otherwise dysfunctional. A minority of subsequent repair-initiations target the immediately preceding repair-initiation as the trouble-source. Such cases necessarily involve a change of initiator, meaning that one interlocutor produces a repair-initiation, and another produces a repair-initiation back.

The large number of multiple OISR sequences in the data allowed for numeric breakdown of the distribution of different formats and subtypes of repair-initiation by their sequential positions. Unsurprisingly there is a higher number of freeze-looks and other OCRIs in the position of firsts than among the subsequent repair-initiations. The data and the coding also allowed for comparing *closing* repair-initiations (restoring the progress) with the *non-closing* cases (not restoring the progress). This comparison, slightly more saliently, showed that the most restricted repair-initiations were more likely to be found among the closing cases. There are several possible reasons for this skewness. One explanation for the high frequency of OCRIs in first position is the well-known preference for conversationalists to format their repair-initiations to be what they believe will be the easiest and least costly way for both interlocutors (Clark & Brennan, 1991; Pomerantz, 1985; Svennevig, 2008). Another explanation is that each (failed) self-repair successively provides the repair-initiator with more information to utilize in the production of restricted repair-initiations. Another motivation for choosing OC-RIs, traditionally associated with troubles of perception, over the seemingly more efficient restricted formats, is that the OCRIs in many situations are considered less face-threatening (Goffman, 1967) than for example candidate offers. (Antaki, 2012; Brown & Levinson, 2013; Manrique & Enfield, 2015; Pomerantz, 1985; Svennevig, 2008). The implicit OCRI format, freeze-look, is the least face-threatening, as it does not even have to be accounted for (Manrique & Enfield, 2015).

For all video-based interactional research the data are the video files – not the actual events, which are no longer available, and certainly not the transcripts, which are simplistic and selective (re)presentations of the data (Forsblom-Nyberg, 1995; Hutchby & Wooffitt, 1998; Psathas & Anderson, 1990). When working with a signed minority language, there is a recurrent need for exploring ways to notate the findings; both for the scrutiny of the analyses, but also as a basis for discussions with colleagues and for presentations or publications. Owing to technological progress and the ingenuity of such journals as *Social Interaction - Video-Based Studies of Human Sociality* ¹⁸, enabling video playback as an integrated part of their online articles, and data-sharing services like the Open Science Framework ¹⁹ (OSF), it has become

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¹⁸ https://tidsskrift.dk/socialinteraction

¹⁹ https://osf.io

possible to share the video data themselves with readers and reviewers to enhance transparency. It is, however, often necessary to make the interaction stand still for examination. Various modes of transcription with different granularities and various levels of detail have been experimented with in this study – one of them being the comic-strip inspired graphic transcript (Laurier, 2014, 2019; Skedsmo, in press; Wallner, 2017a, 2017b, 2018). Like traditional comics, these have a flexible temporal granularity, allowing the author (and the reader) to fast-forward through parts that are necessary for building context, but outside the scope of the analysis, and present the focused events in a fine grained movement-by-movement resolution for close scrutiny. The graphic transcript does not replace the Jeffersonian CA transcript, with its consistent tenth-of-a-second precision on relative co-occurrences. Still the two-dimensional positioning of speech bubbles indicates order and overlaps, and both the fonts and the outlines of speech bubbles can convey prosodic features in ways most readers are familiar with, reducing the need for complex convention charts. The graphic transcript in the third article (Skedsmo, in press) is used to show a situation where interlocutors respond to utterances (partly) produced while they were looking another way. The research question of the small analysis of the extract has an interactional rather than a linguistic emphasis. Therefore, the utterances in this particular graphic transcript are presented as English translations rather than as glossed NTS in the speech bubbles. With other research foci, the utterances could be presented as glossed NTS or as phonetic transcriptions in the speech bubbles. I consider such graphic transcripts useful for presenting signed, and possibly also spoken, interaction for several scientific and educational purposes, and they can effectively communicate certain CA findings for audiences not trained in reading CA transcripts.

The act of initiating repair does not reflect ignorance or lack of competence, but rather demonstrates interest and respect toward the other. Studying conversational repair is therefore not about submerging into human flaws and shortcomings, but about investigating fundamentally vital practices of understanding the talk of others and making yourself understood.

This study emphasizes visual, interactional conduct in conversation, both in terms of what is investigated and how it is (re)presented to the reader by use of multilinear transcripts, photos, graphic transcripts and videoclips. This research is conducted on signed language interaction, where visual-gestural and embodied practices carry the whole communicative load. Such features of human communication do, however, matter also in face-to-face spoken language interaction. There are reasons why videotelephony solutions are gaining ground, also for spoken

language conversations – and reasons why we sometimes avoid them. The importance of visual embodied features should be reflected in the design, methodology, and dissemination of research on human communication, also for spoken languages.

7 References

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Appendix 1: Transcription conventions

Transcription conventions for spoken language examples

These apply to Extract 1-16 in the synopsis, following Jefferson (2004).

[words] Indicating start and end overlapping parts of utterances

[words Indicating start of overlap

: Prolongation of immediately prior sound. (Sometimes mo::::re than one)

Cut-off

. Utterance-final intonation , Slight rising intonation Word Emphasized word

Word Entire word is 'punched up'

→ Repair-initiation

'ord/wo'/w'd Pronunciation, omitting part of word (1.2) Pause, measured in tenths of a second

No break or gap(word) Uncertain transcription

Hhh Audible inbreath

Transcription conventions for multilinear NTS transcription

These transcription conventions only apply to Extract 17 in the synopsis. Each of articles has their own lists of conventions, either in the text or available for download from OSF.

Name---- (Gaze-tier/upper tier) Interlocutor is gazing towards another person

for as long as the dashes show.

Direction---- (Gaze-tier/upper tier) Interlocutor is gazing in the direction noted

for as long as the dashes show. Directions are e.g. down.

SIGN Sign from NTS glossed with an English word in uninflected form SIGN (neg) Sign pronounced with simultaneous shaking of head (negation) POINT (Name) Pointing towards another interlocutor, or to indicate references

like "them", "there" etc.

(action) Non-manual or manual actions that are not signs

SIGN-direction A sign is uttered in a specific direction SIGN-locus A sign is uttered in a specific location

(cl) flat surface Classifier, e.g. a flat hand representing a flat surface

{ca: hold phone} Constructed action, e.g. holding a cell-phone

Grey background indicates lines occurring simultaneously, to display gaze, overlapping signing etc.

Article one

Other-initiations of repair in Norwegian Sign Language

Published in Social Interaction - Video-Based Studies of Human Sociality, 2020 Vol. 3, Issue

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Please note:

The article is published in an HTML-format and includes PDF files and videoclips as integrated parts of the text. As such, it should be read in a web-browser, rather than on paper. Browser must be set to display PDF files directly in the browser window, and not to download them or open them in for example Adobe Acrobat Reader. If you experience problems, please try an alternative browser (Microsoft Edge, Mozilla Firefox, Google Chrome, etc.) or change setting for PDF files in the browser.

Article two

Multiple other-initiations of repair in Norwegian Sign Language

Published in: Open Linguistics, De Gruyter, 2020 Vol. 6, pp. 532-566 ISSN: 2300-9969

DOI: https://doi.org/10.1515/opli-2020-0030

URL: https://www.degruyter.com/document/doi/10.1515/opli-2020-0030/html

Submitted: March 3, 2020 Accepted: August 20, 2020 Published: December 17, 2020

Please note:

The article contains links to videoclips at OSF. Therefore, it is recommended that this article is opened and read in a web browser. For this reason, the article is not attached.

Article three

How to use comic-strip graphics to represent signed conversation

Published in: Research on Language and Social Interaction

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URL: https://www.tandfonline.com/doi/full/10.1080/08351813.2021.1936801?scroll=top&needAccess=true

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Please note:

The article contains links to videoclips at OSF. Therefore, it is recommended that this article is opened and read in a web browser. For this reason, the article is not attached.

Transcription conventions

Gaze-tier (upper tier)

Name---- Interlocutor is gazing towards another person for as long as the

dashes show.

Direction---- Interlocutor is gazing in the direction noted for as long as the

dashes show. Directions are e.g. down.

Shut---- Interlocutor is closing eyes more than a brief blink. Dashes indicate

for how long the eyes are shut.

Sign-tier (second tier from top of each section/line):

SIGN Sign from Norwegian Sign Language glossed with an English

word in uninflected form. If a sign needs to be glossed with

more than one English word that is indicated with hyphens.

POINT(Name) Pointing towards another interlocutor, or to indicate

references like "them", "there" etc.

I Pointing towards self.

SIGN Turn-final holding of last part of sign for as long as the

underlining shows.

(Action) Nodding or other non-manual or manual actions.

SIGN! Emphasized pronunciation of sign.

SIGN? Question-marked pronunciation (eyebrows lowered or

raised).

SIGN-place/direction The place or direction of a sign.

SIG... The sign is interrupted

FL (0.7) Freeze-look response for 0.7 seconds.

(fs) Next word is fingerspelled.

(cl) shape or form-place Classifier with described shape and place/direction of

articulation.

{ca describe-action} Constructed action (interlocutor acts out an action).

Grey background indicates lines occurring simultaneously, to display gaze, overlapping signing etc.

1.		Sign: Trns:	Ed/Finndown-front- (smiling) BUT ANNOYING ANNOYING NEW UPDATE But, that annoying update
2.	Ben	Gaze: Sign: Trns:	foodCarlBAD It sucks
3.	Finn	Gaze: Sign: Trns:	foodBAD It sucks.
4.	Ed	Sign:	AbefoodCarl (takes a bite of food)
5.	Abe	Sign:	foodCarl(smiling)
6.	Dean	Gaze:	(We cannot see him properly in most of extract)
7.	Carl	Sign:	down front
8.	Finn	Sign:	BAD It sucks.
9.	Carl	Sign:	up frontdown- (slow, exaggregated large movement) TAP (hands down) So many extra taps.
10.	Carl		Ed-Finn-Abe (puffs cheaks, blows air) TIRESOME Exhausting!
11.	Ben		Carlfood-CarlYES
12.	Abe		Carl I HAVE-NOT UPDATE HAVE-NOT I WAIT WAIT I haven't updated yet. I'll wait.
13.	Carl	Sign:	Abe HEY SOON (become) SLOW HAVE-TO DO-RELUCTANTLY Soon it'll become slow. Then you'll have to.

14.	Ben	Gaze: Carl-down front-AbeGign: YES RIGHT Trns: Yes, that's right.
15.	Abe	Gaze: Carl-front
16.	Carl	Gaze: Abe (smiles) Trns:
17.	Ed	Gaze: Ben-downfrontBenBenBign: {ca TAP (cl)flat_hand TEDIOUS {ca(cl)flat_hand FLIP} Trns: You tap, and it stays there forever then it flips.
18.	Ben	Gaze: EdGaze: EdGign: (takes large sip of milk and signs without mouthing:) Trns:
19.	Carl	Gaze: downBen
20.	Ed	Gaze: BenGign: FINALLY. SWIPE-down. Frns: Finally. Swipe down.
21.	Ben	Gaze: Ed YES Gign: Yes. Yes.
22.	Carl	aze: EdBen
23.	Ben	Gaze: Edfront lowfront high Sign: {ca TAP(low)SWIPE-down (cl)growing_entity(high right) Trns: You tap, swipe down, a menue appears up to the right.
24.	Ben	Gaze: Ed Sign: point TAP SWIPE-down(fast) (cl)flat_hand FLIP} Trns: You tap up there, swipe down and it flips.

```
Ben Gaze: -----Ed-----Ed-----
       Sign: I PALMS-UP (shakes head slowly)
       Trns: I mean...?
       Gaze: Ben-----hand-Ben
26.
   Ed
        Sign: TEDIOUS {ca(cl)flat_hand_forward)hold FLIP hold FLIP}
               So tedious. Flipping slowly back and forth.
27. Carl Gaze: Ben------Ed------Ed------
28. Carl Gaze: Ed-----
        Sign: SWIPE-down?
        Trns: You swipe down?
29. Ed Gaze: Carl----
30. Ben Gaze: Ed-Carl----
31. Ed Gaze: Carl-----down front
       Sign: (freeze-look response 0.6)
       Trns:
32.
   Carl Gaze: Ed-----
        Sign:
                               YOU
       Trns:
                               You...
33. Ben Gaze: -----
       Sign: (reaches for Carl's arm)
       Gaze: down front-----Carl
34.
        Sign: {ca (cl)flat hand(left) TAP TAP SWIPE-right} PALMS-UP
       Trns:
                    You tap and you swipe.
                                        I don't know.
35.
  Ed Gaze: Carl---down-----Carl-
        Sign: (0.3) UNKNOWN I
       Trns:
               No idea.
36. Carl Gaze: Ed-----
37. Ben Gaze: Ed-----Carl
```

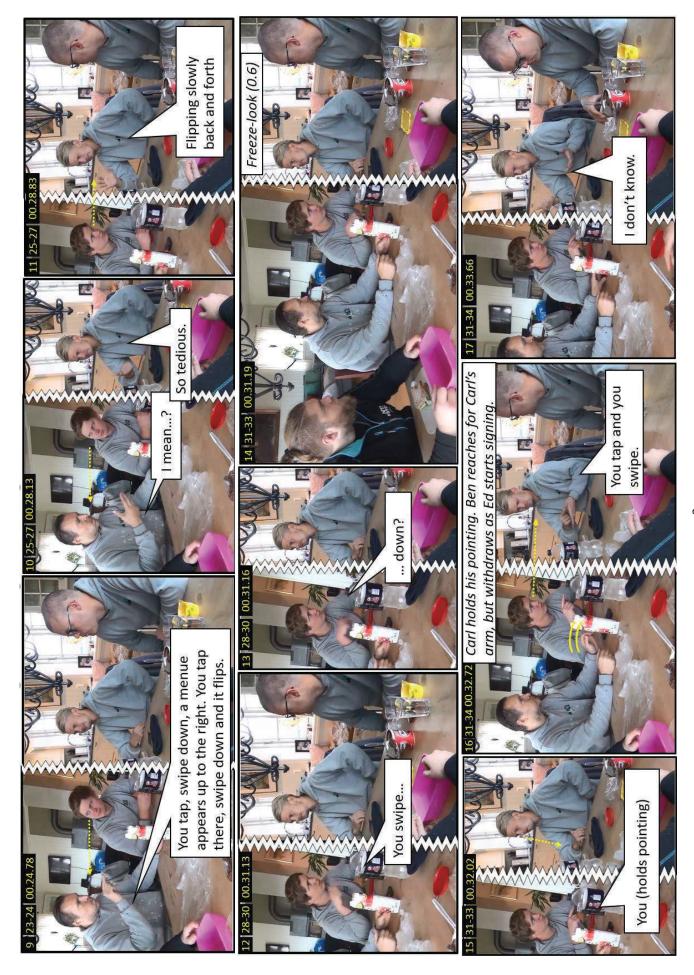
38.	Carl	Sign:	EdBen HEY, MEAN CAN SWIPE-down TURN SELF? So, you can swipe down, and it turns over by itself?
39.	Ben		Carl (touches Carl's arm) YES Yes.
40.	Ed	Gaze: Sign:	CarlBen-Abe (0.8)
41.	Abe	Gaze: Sign: Trns:	(Carl?) HEY HEY Hey. Hey
42.	Finn	Gaze: Sign: Trns:	Carl (emphatic:) TRY YOURSELF Try it yourself!
43.	Ben	Sign:	Carlfront
44.	Carl	Gaze:	EdAbe(possibly Ben and/or Ben's signing)
45.	Abe	Sign:	CarlCarl-down right CAN {ca:hold_object_while_thumb_contracts_sideways} you can swipe sideways with your thumb.
46.	Finn	Sign:	Carl
47.	Ben	Sign:	frontdown left (cl)flat_surface_moving_up TAP-high SWIPE-down a menu comes up, then you tap at the top and swipe down
48.	Carl	Gaze:	Bendown front
49.	Abe	Sign:	downCarl LOOK (picking out his phone from his pocket) Look.

50.	Ben	Sign:	<pre>frontCarldown left (Carl's phone?) (cl) flat_hand-flips_around} and then it flips.</pre>
51.	Carl	Gaze:	Ben(own phone?)
52.	Abe		frontCarl (leans over towards Carl with own phone)
53.	Abe	Sign:	own phoneCarl-own phone HEY HEY(showing thumb-swiping) HEY EASY Hey (Carl). Hey, it's easy.
54.	Carl	Gaze:	Abe-Abe's phoneAbeAbe's phone
55.	Ben	Gaze:	Abe's phoneAbeAbe's phone
56.	Abe		Own phoneCarl (showing thumb-swiping 6.9 seconds)
57.	Carl	Gaze:	Abe's phone(leaning backwards, stretching as if to see better)
58.	Ben	Gaze:	Abe's phone
59.	Abe		CarlCarl (points to phone and does thumb-swipe again) TURN-OVER It turns over.
60.	Carl	Gaze:	Abe's phoneAbe-phone-Abe
61.	Ben	Gaze:	Abe's phoneAbe-phoneAbe-
62.	Abe	Gaze: Sign:	Carlown phone(leans over showing phone again)
63.	Carl		AbeEd(raise hand) FACE-TIME(neg) That's not FaceTime.
64.	Ben	Gaze: Sign: Trns:	

65.	Abe	Gaze: Sign: Trns:	own phone-Carl-own phone CAN-phone TURN TURN It can. It turns ov	
66.	Carl	Gaze: Sign: Trns:	Abe's phone-AbeBen FACE FACE-TIME(neg) That's That's not FaceTime	
67.	Ben	Gaze: Sign: Trns:	CarlAbe's phone-Carl	
68.	Carl	Sign:	Ben-Abe's phone-Abeown phone-Abe FACE-TIME(neg) (points to own phone It's not FaceTime)
69.	Abe	Gaze: Sign: Trns:	Carl	
70.	Ben	Gaze: Sign:	-Carl own phone-Abe (reaches to/touches A	be)
71.	Ben	Sign:	Abeown phone POINT(Carl) MEAN POINT(Carl) FACE-TIME HOW TURN CAMERA He's asking how to turn the camera in FaceTime.	
72.	Abe		Ben-Ben's phone-forward up-Ben(0.7) (lifts head, leans back, open mouth) Oh!	
73.	Carl	Gaze: Sign: Trns:	Ben's phoneAbe (touches Ben's lower arm x3) Hey, hey, hey.	
74.	Ben	Gaze:	Own phone	
75.	Abe	Sign:	Ben YES YES LIKE (touches Ben's shoulder) Yes. I see! Hey.	
76.	Carl	Gaze:	Abe	
77.	Ben	Gaze:	Own phone	

78.	Abe		Ben (cl) CAMERA-TO-FACE CAMERA-FROM-FACE CAMERA-TO-FACE Toggling between front and back camera,
79.	Ben	Gaze: Sign: Trns:	Abe (nod) <i>Mhm</i> .
80.	Abe	Sign:	Ben MEAN POINT(Carl) (open mouth nodding) he means? Oh! Right
81.	Ben		Abe Own phone (nod) Mhm.
82.	Carl	Sign:	Abe HEY HEY Hey, hey.
83.	Abe	Sign:	Own phoneEd UNKNOWN I I don't know.
84.	Ben	Sign:	Abe POINT-Carl SAY (touches Carl's arm) He said
85.	Carl	Gaze: Sign: Trns:	
86.	Ed		Abeup/right HEY. KNOW FACE-TIME HAVE (cl) small_round-high-right Hey. You know FaceTime has it's own button in the
87.	Ed	Sign:	Abefront up OWN (cl)small_round-high-right TAP MUST TERRIBLE upper right corner. You must tap a terrible lot.
88.	Ed	Sign:	front downfront up
89.	Ed	Sign:	-Abefront upAbe TWO TIME TAP-high must tap up there. You have to tap twice.



























Abe touches Ben's shoulder.

01.08.31

in FaceTime.

how to turn the camera

He's asking











KORPUS FOR NORSK TEGNSPRÅK

Spørreskjema

Dat	to://	
Ste	ed:	_
Na	avn:	
Ad	lresse:	
Ро	ostkode:	
Ер	oost-adresse:	
1.	Fødselsdato:/ Alder:	
2.	Er du født i Norge? ja	
	Er dine foreldre født i Norge? ja	
3.	Kjønn: mann	
4.	Hvilken hånd bruker du når du skriver: høyre venstre begge [
5.	Hvilken hånd er den dominante når du bruker tegnspråk: høyre	
6.	Er du født døv? ja	
7.	Hvor gammel var du når du lærte tegnspråk? 0-7 år	

8. Hvor lærte du	tegnsprak?							
Hjemme, av foreld	dre		På sk	olen, av lærere				
Hjemme, av søsk	en		På sk	olen, av andre l	oarn			
Hjemme, av tegns	språklærer		Av ve	nner				
Av familie jeg ikke	bor med		Anne	t				
9. Er/Var dine fo	reldre døve ell	er hører	nde?					
Mor	Døv 🗌 T	unghørt		Hørende 🗌				
Far	Døv 🗌 T	unghørt		Hørende 🗌				
10. Hvordan komi	muniserte din ı	mor mes	t? Vel	g bare en				
norsk tegnspråk			bare	norsk talespråk				
tegn til tale			skriftl	ig				
håndalfabetet			annet	talespråk				
gester/hjemmeteg	gn 🗌		annet	tegnspråk				
vet ikke								
11. Hvordan komi	muniserte din 1	far mest	? Velg	bare en				
norsk tegnspråk			bare	norsk talespråk				
tegn til tale			skriftl	ig				
håndalfabetet			annet	talespråk				
gester/hjemmeteg	gn 🗌			tegnspråk				
vet ikke								
	_							
Hvis begge foreld	rene dine er h	ørende,	gå til s	pørsmål 14. Hv	vis en e	ller begg	e foreldre	ene dine
er døve, gå til spø		,	Ü				,	
, 5								
12. Hvor kom fore	eldrene dine fra	a/ hvor v	okste (de opp?				
Mor						vet ikke	· 🗆	
Far						vet ikke	. — . —	
13. Hvis en av elle	er begge foreld	drene dir	ne er/v	ar døve, gikk de	e på døv	/eskole?	ı	
Mor	ja 🗌	nei		vet ikke				
Far	ja 🗌	nei		vet ikke				
Hvis du svarte	_	en skole	gikk d	e på?	_ _			
Mor				'			vet ikke	
Far							vet ikke	

14. Har du noen døve brødre eller søstre som bruker tegnspråk? ja 🗌 nei 🗌
Hvis du svarte ja, vær snill og spesifiser hvem av dine døve søsken som bruker/brukte
tegnspråk.
yngre bror/brødre
yngre søster/søstre
eldre bror/brødre
eldre søster/søstre
15. Er/Var dine besteforeldre døve?
Mors far ja ☐ nei ☐ vet ikke ☐
Mors mor ja ☐ nei ☐ vet ikke ☐
Fars far ja ☐ nei ☐ vet ikke ☐
Fars mor ja ☐ nei ☐ vet ikke ☐
16. Brukte/bruker besteforeldrene dine tegnspråk?
Mors far ja ☐ nei ☐ vet ikke ☐
Mors mor ja ☐ nei ☐ vet ikke ☐
Fars far ja ☐ nei ☐ vet ikke ☐
Fars mor ja 🗌 nei 🗌 vet ikke 🗌
17. Har du en døv partner? ja ☐ nei ☐ har ikke partner ☐
Bruker partneren din tegnspråk? ja 🗌 nei 🗌 har ikke partner 🗌
18. Har du døve barn? ja ☐ nei ☐
Har du hørende barn? ja ☐ nei ☐
Bruker du tegnspråk til dine barn? ja 🔲 nei 🗌
19. Har du andre døve slektninger som bruker tegnspråk? ja ☐ nei ☐
Hvis ja,
hvem?
20. Hva er høyeste utdanning du har fullført? Velg kun en
Gikk på skole, men ingen eksamener
Grunnskole
Videregående skole
Lavere grad, høgskole/Universitet (BA)
Høyere grad, høgskole/Universitet (MA, PhD)

21.	Hvor gammel var du da du sluttet å gå på skole på full tid? Velg kun en
	16 år eller yngre
	17-18 år
	19-20 år
	21 år eller eldre
	Er fremdeles fulltids elev/student
22.	Hvilke(n) skole(r) gikk/går du på? Skriv gjerne bade grunnskole og
	ungdomsskole/framhaldsskole og om det var en døveskole.
22	Gikk du på internatskole?
23.	Barneskolen ja nei
	Ungdomsskole/Framhaldsskolen ja nei
	engasmosicio, raminalacoi cien ja 🗀 nei 🗀
24.	Hvordan kommuniserte læreren din I KLASSEROMMET på barneskolen? (du kan velge
	flere enn et svar)
	tegn
25.	Hvordan kommuniserte læreren din I KLASSEROMMET på
	ungdomsskolen/framhaldsskolen? (du kan velge flere enn et svar)
	tegn
26.	Hvordan kommuniserte du med de andre døve elevene på barneskolen?
	(du kan velge flere enn et svar)
	tegn
	penn og papir
27.	Hvordan kommuniserte du med de andre døve elevene på ungdomsskolen
	(du kan velge flere enn et svar)?
	tegn
	penn og papir 🗌 gester 🗌 vet ikke 🗌

28. Nåværende
yrke:Pensjonist (hvis du er pensjonist, hva jobbet du med før du pensjonerte deg):
29. Har du noen gang vært tegnspråklærer? ja nei Har du noen gang gått på tegnspråkkurs? ja nei
30. Er du født der du bor nå? ja
31. Hvilke andre steder har du bodd? Vær snill og skriv dem her. Hvis du ikke har bodd andre steder, kryss her ☐ og gå til spørsmål 33.
32. Hvor lenge har du bodd stedene du skrev opp i spørsmål 31 (over)?
33. Hvordan vil du beskrive din deltakelse i døvemiljøet i Norge? Kryss av mer enn en hvis nødvendig. Har døve venner Deltar på arrangementer Er med i døveforeningen Andre grupper (f.eks. idrett, dramagruppe)
34. Har du flest døve venner, flest hørende venner, eller ca like mange døve og hørende venner? Flest døve Flest hørende Ca like mange døve og hørende
35. Hvordan vil du vurdere ditt eget tegnspråknivå? (1 er dårlig, 7 er bra) Velg kun en. 1

36. Bortsett fra norsk tegnspråk	og norsk, kan du noen andre språk? ja 🔲 nei 🗌
Hvis du svarte nei, vær snill d	og gå til spørsmål 38.
Hvis ja, hvilke andre språk (t	egnspråk eller talespråk) kan du?
37. Hvor bruker du språkene du	har skrevet opp i spørsmål 36? Kryss av alle som passer.
Hjemme	
På skolen	
På jobben	
Når jeg er i utlandet	
Annet	
38. Hvilket språk snakker du hels	st? Velg kun ett språk.
Norsk tegnspråk	
Tegn til tale	
Norsk talespråk	
Et annet talespråk	
Et annet tegnspråk	
39. Hvordan kommuniserer du m	ned (du kan velge flere enn et svar):
Hørende i familien din	tegn⊡ tale⊡ tegn til tale ⊡ skriftspråk ⊡ gester⊡
Andre døve i familien din	tegn⊡ tale⊡ tegn til tale ⊡ skriftspråk ⊡ gester⊡
Døve venner	tegn⊡ tale⊡ tegn til tale ⊡ skriftspråk ⊡ gester⊡
Hørende venner	tegn⊡ tale⊡ tegn til tale ⊡ skriftspråk ⊡ gester⊡
Døve på jobben	tegn⊡ tale⊡ tegn til tale ⊡ skriftspråk ⊡ gester⊡
Hørende på jobben	tegn⊡ tale⊡ tegn til tale ⊡ skriftspråk ⊡ gester⊡
Hørende du ikke kjenner	tegn⊡ tale⊡ tegn til tale ⊡ skriftspråk ⊡ gester⊡
Døve du ikke kjenner	tegn⊡ tale⊡ tegn til tale ⊡ skriftspråk ⊡ gester⊡

Coding schema of individual cases of other-initiation of repair in Norwegian Sign Language

Based on Dingemanse et al. (2015), with added coding categories, marked with "(Added)"

Part A: Basic data

- A0. Language
- A1. Unique identifier
- A2. Trouble-source transcript
- A3. Trouble-source translation
- A4. Repair-initiation transcript
- A5. Repair-initiation translation
- A6. Self-repair transcript
- A7. Self-repair translation

Part B: Repair initiation

- B1. What is TO?
 - 1. OIR (other-initiation of repair)
 - 2. QNR (question-formatted news receipt, like "What?", not followed by self-repair.)
 - 3. Other
- B2. What other action does the repair-initiator perform?
 - 1. no other action
 - 2. surprise/disbelief
 - 3. disaligning action
 - 4. non-serious action
 - 5. other
- B3. What is the position of the repair-initiation in the in-progress OIR sequence?
 - 1. one and only
 - 2. first of multiple
 - 3. other
 - 4. last of multiple
- B3.1. (Added) If B3 is "other" or "last of multiple", what trouble-source is the repair-initiation targeting?
 - 1. re-targeting same trouble-source
 - 2. targeting prior self-repair
 - 3. targeting prior repair-initiation
- B3.2. (Added) If last of multiple, how many repair-initiations are in the multiple sequence?
 - 1. 2

2. 33. 4
4. more than 4
 B4. How does the repair-initiation target the problem to be repaired? 1. open 2. restricted 3. alternative 4. external
 B5. What type of <i>open</i> repair-initiation is this? (Only answer if B4 = "open".) 1. interjection 2. question word 3. formulaic Russian 4. visible only
B5.1. (Added) Is the repair-initiation a freeze-look response? 1. yes 2. no
B6. Does the repair-initiation include any repeated material from the trouble-source? (only answer if B4 = other than "open".) 1. full 2. partial 3. no
B7. Does the repair-initiation involve a content-question word? (Like "who", "when" or "which".) 1. yes 2. no
B8. Does the repair-initiation make (dis)confirmation relevant?1. yes2. no
B9. Is there 'added' explicit marking of the repair-initiation function? (Like e.g. "Do you mean?") 1. yes 2. no
B10. Is the repair-initiation simple or complex? (Complex repair-initiations address more than one problem in/with the trouble-source turn, like "Did you say house? – who's house?" 1. simple

- 2. complex
- B11. (Added) Is the repair-initiation performed more than once?
 - 1. no, just once
 - 2. partly repeated
 - 3. repeated once
 - 4. repeated more than once
- B12. (Added) Does the repair-initiation have a visual, tactile summons first
 - 1. yes
 - 2. no

Part C: the trouble-source turn

- C1. What is the sequential status of trouble-source?
 - 1. First pair-part (e.g. question, greeting or other utterance calling for response)
 - 2. Second pair-part (utterance responding to a first pair-part.)
 - 3. Other (e.g. part of story)
- C2. Is there a cut-off, unit restart, and/or um/uh in the trouble-source?
 - 1. yes
 - 2. no
 - 3. can't tell
- C3. Is there noise or overlapping talk during the trouble-source?
 - 1. noise (or visual distraction, in signed language context)
 - 2. overlap
 - 3. no
 - 4. can't tell
- C4. Could the trouble be due to not being able to see something, for example, a speaker or referent?
 - 1. yes
 - 2. no
 - 3. can't tell
- C5. If yes, briefly describe the visual problem from C4 (fulltext).
- C6. During the trouble-source turn, is B involved in a parallel course of action that is demanding on B's attention? (A is the one who utters the trouble-source turn, B initiates A's self-repair)
 - 1. yes
 - 2. no
 - 3. can't tell

C7. If yes, briefly describe the parallel course of action that B is involved in (fulltext).
C8 (Added) Is this a case of open-class repair-initiation with a full repeat self-repair? 1. yes 2. no
C9 (Added) Is this a case of open-class repair-initiation with a partial repeat self-repair? 1. yes 2. no
C10 (Added) Is this a case of open-class repair-initiation with a no-repeat self-repair? 1. yes 2. no
Part D: Self-repair D1. Does the self-repair repeat any material from trouble-source? 1. full 2. partial 3. no
D2. If a repeat, have dispensable items been left off? 1. yes 2. no
D3. Is the self-repair a modified version of trouble-source? 1. yes 2. no
 D4. Does the self-repair include a (dis)confirmation of repair-initiation? 1. yes 2. no 3. can't tell
D5. Is there 'added' explicit marking of the self-repair function? (Like e.g. "Oh, you know") 1. yes 2. no
D6. (Added) Is there a marked display of understanding by B after the self-repair? (Like "oh, I see!") 1. yes 2. no

Part E: Visible behavior

- E1. During the trouble-source, is A gazing at B at some point?
 - yes
 - 2. no
 - 3. can't tell
- E1.1. (Added) During the trouble-source, is A not gazing at B at some point? (Multiple answers possible.)
 - 1. beginning of the trouble-source
 - 2. middle of the trouble-source
 - 3. end of trouble-source
 - 4. no
 - 5. can't tell
- E2. During trouble-source, is B gazing at A at some point?
 - 1. yes
 - 2. no
 - 3. can't tell
- E2.1. (Added) During the trouble-source, is B not gazing at A at some point? (Multiple answers possible.)
 - 1. beginning of the trouble-source
 - 2. middle of the trouble-source
 - 3. end of trouble-source
 - 4. no
 - 5. can't tell
- E3. Around the repair-initiation, does B move their body or head so as to increase perceptual access?
 - 1. yes
 - 2. no
 - 3. can't tell
- E4. Around the repair-initiation, is there easily noticeable facial action by B?
 - 1. yes
 - 2. no
 - 3. can't tell
- E4.1. (Added) If E4 is "yes". (Multiple answers possible)
 - 1. Eyebrows raised
 - 2. Eyebrows lowered
 - 3. Squinting
 - 4. Leaning forward

- 5. Other (describe)
- E5. Is any behaviour held by B from around repair-initiation at least until the beginning of the self-repair (eye gaze, head position, body posture, manual co-speech gesture or signs, facial articulation)?
 - 1. yes
 - 2. no
 - 3. can't tell
- E5.1. (Added) If E5 is "yes", describe briefly. (Multiple answers possible)
 - 1. Eyebrows raised
 - 2. Eyebrows lowered
 - 3. Squinting
 - 4. Leaning forward
 - 5. Other (describe)

Part F: Sequence

- F1. What is the participation framework during this sequence?
 - 1. dyadic
 - 2. multi-person
 - 3. can't tell
- F2. Do more than two people contribute to this OIR sequence?
 - 1. yes
 - 2. no
- F3. Is there intervening material between the trouble-source and the repair-initiation? (This could be a TCU, a full turn or even multiple turns.)
 - 1. yes
 - 2. no

Part G (Added) Extra coding related to freeze-look responses

- G1. (Added) If freeze-look response; give time measures:
 - 1. from completion of trouble-source turn to self-repair or upgrade to explicit repair-initiation
 - 2. from self-repair starts to release of freeze-look pose/display
 - 3. from completion of trouble-source turn to release of freeze-look pose/display
 - 4. Total durance of freeze-look pose/display
- G2. (Added) If freeze-look response; what follows next?
 - 1. Self-repair by A
 - 2. Upgrade to explicit repair-initiation by B
 - 3. B signaling late understanding

4. Conversating goes on without self-repair

Dingemanse, Mark, Kobin Kendrick, H. & N. J. Enfield. 2015. A Coding Scheme for Other-initiated Repair Across Languages. *Open Linguistics* 2(1). doi:10.1515/opli-2016-0002



MELDESKJEMA

Meldeskjema (versjon 1.6) for forsknings- og studentprosjekt som medfører meldeplikt eller konsesjonsplikt (jf. personopplysningsloven og helseregisterloven med forskrifter).

1. Intro				
Samles det inn direkte personidentifiserende	Ja ● Nei ○	En person vil være direkte identifiserbar via navn, personnummer, eller andre personentydige kjennetegn.		
opplysninger?		Les mer om hva personopplysninger er.		
Hvis ja, hvilke?	■ Navn □ 11-sifret fødselsnummer □ Adresse ■ E-post □ Telefonnummer □ Annet	NB! Selv om opplysningene skal anonymiseres i oppgave/rapport, må det krysses av dersom det skal innhentes/registreres personidentifiserende opplysninger i forbindelse med prosjektet. Les mer om hva behandling av personopplysninger innebærer.		
Annet, spesifiser hvilke				
Skal direkte personidentifiserende opplysninger kobles til datamaterialet (koblingsnøkkel)?	Ja ○ Nei •	Merk at meldeplikten utløses selv om du ikke får tilgang til koblingsnøkkel, slik fremgangsmåten ofte er når man benytter en databehandler.		
Samles det inn bakgrunnsopplysninger som kan identifisere enkeltpersoner (indirekte personidentifiserende opplysninger)?	Ja ● Nei ○	En person vil være indirekte identifiserbar dersom det er mulig å identifisere vedkommende gjennom bakgrunnsopplysninger som for eksempel bostedskommune eller arbeidsplass/skole kombinert med opplysninger som alder, kjønn, yrke, diagnose, etc.		
Hvis ja, hvilke	A background questionnaire will elicit information about the participants' social, educational, and language backgrounds. This metadata is essential to corpus linguistic methods as it facilitates investigation into the social variables that shape language use.	NB! For at stemme skal regnes som personidentifiserende, må denne bli registrert i kombinasjon med andre opplysninger, slik at personer kan gjenkjennes.		
Skal det registreres personopplysninger (direkte/indirekte/via IP-/epost adresse, etc) ved hjelp av nettbaserte spørreskjema?	Ja ○ Nei ●	Les mer om nettbaserte spørreskjema.		
Blir det registrert personopplysninger på digitale bilde- eller videoopptak?	Ja ● Nei ○	Bilde/videoopptak av ansikter vil regnes som personidentifiserende.		
Søkes det vurdering fra REK om hvorvidt prosjektet er omfattet av helseforskningsloven?	Ja ∘ Nei •	NB! Dersom REK (Regional Komité for medisinsk og helsefaglig forskningsetikk) har vurdert prosjektet som helseforskning, er det ikke nødvendig å sende inn meldeskjema til personvernombudet (NBI Gjelder ikke prosjekter som skal benytte data fra pseudonyme helseregistre).		
		Les mer. Dersom tilbakemelding fra REK ikke foreligger, anbefaler vi at du avventer videre utfylling til svar fra REK foreligger.		
2. Prosjekttittel				
Prosjektittel	Other-initiated repair in Norwegian Sign Language	Oppgi prosjektets tittel. NB! Dette kan ikke være «Masteroppgave» eller liknende, navnet må beskrive prosjektets innhold.		
3. Behandlingsansvarlig institusjon				
Institusjon	Høgskolen i Oslo og Akershus	Velg den institusjonen du er tilknyttet. Alle nivå må oppgis. Ved studentprosjekt er det studentens		
Avdeling/Fakultet	Fakultet for lærerutdanning og internasjonale studier	tilknytning som er avgjørende. Dersom institusjonen ikke finnes på listen, har den ikke avtale med NSD som personvernombud. Venpliget te kontakt med		
Institutt	Institutt for internasjonale studier og tolkeutdanning	personvernombud. Vennligst ta kontakt med institusjonen. Les mer om behandlingsansvarlig institusjon.		
4. Daglig ansvarlig (for	rsker, veileder, stipendiat)			

Fornavn	Kristian	Før opp navnet på den som har det daglige ansvaret for prosjektet. Veileder er vanligvis daglig ansvarlig
Etternavn	Skedsmo	ved studentprosjekt. Les mer om daglig ansvarlig.
Stilling	Doctoral Research Fellow	Daglig ansvarlig og student må i utgangspunktet være tilknyttet samme institusjon. Dersom studenten har
Telefon	41231899	ekstern veileder, kan biveileder eller fagansvarlig ved studiestedet stå som daglig ansvarlig.
Mobil		Arbeidssted må være tilknyttet behandlingsansvarlig institusjon, f.eks. underavdeling, institutt etc.
E-post	kristian.skedsmo@oslomet.no	
Alternativ e-post	kristian.skedsmo@hioa.no	NB! Det er viktig at du oppgir en e-postadresse som brukes aktivt. Vennligst gi oss beskjed dersom den endres.
Arbeidssted	OsloMet	
Adresse (arb.)	Pilestredet 42	
Postnr./sted (arb.sted)	0130 Oslo	
5. Student (master, ba	chelor)	
Studentprosjekt	Ja ∘ Nei •	Dersom det er flere studenter som samarbeider om et prosjekt, skal det velges en kontaktperson som føres opp her. Øvrige studenter kan føres opp under pkt 10.
6. Formålet med prosj	ektet	
Formál	This project will attempt to document and describe how deaf native and near-native signers establish and maintain common topics, intersubjective understandings in group conversation. I will examine other-initiated repair; in which circumstances it appears, how it is conducted and what second language learners of Norwegian Sign Language can learn from this communicative behavior as part of the language specific communicative competence.	Redegjør kort for prosjektets formål, problemstilling, forskningsspørsmål e.l.
7. Hvilke personer ska	Il det innhentes personopplysninger om (utvalg)?	
Kryss av for utvalg	□ Barnehagebarn □ Skoleelever □ Pasienter □ Brukere/klienter/kunder □ Ansatte □ Barnevernsbarn □ Lærere □ Helsepersonell □ Asylsøkere ■ Andre	Les mer om forskjellige forskningstematikker og utvalg.
Beskriv utvalg/deltakere	Participants will be adult, deaf, native or near-native signers of Norwegian Sign Language.	Med utvalg menes dem som deltar i undersøkelsen eller dem det innhentes opplysninger om.
Rekruttering/trekking	Recruitment will be initiated through personal contacts. Sampling will be controlled for social variables such as gender, age, and region (common in sociolinguistic research).	Beskriv hvordan utvalget trekkes eller rekrutteres og oppgi hvem som foretar den. Et utvalg kan rekrutteres gjennom f.eks. en bedrift, skole, idrettsmiljø eller eget nettverk, eller trekkes fra registre som f.eks. Folkeregisteret, SSB-registre, pasientregistre.
Førstegangskontakt	The primary investigators and informants will establish initial contact with the sample through face-to-face meetings, video relayed conversation, text messages and emails.	Beskriv hvordan førsstegangskontakten opprettes og oppgi hvem som foretar den. Les mer om førstegagskontakt og forskjellige utvalg på våre temasider.
Alder på utvalget	□ Barn (0-15 år) □ Ungdom (16-17 år) ■ Voksne (over 18 år)	Les om forskning som involverer barn på våre nettsider.
Omtrentlig antall personer som inngår i utvalget	9	
Samles det inn sensitive personopplysninger?	Ja ● Nei ○	Les mer om sensitive opplysninger.
Hvis ja, hvilke?	□ Rasemessig eller etnisk bakgrunn, eller politisk, filosofisk eller religiøs oppfatning □ At en person har vært mistenkt, siktet, tiltalt eller dømt for en straffbar handling ■ Helseforhold □ Seksuelle forhold □ Medlemskap i fagforeninger	

Inkluderes det myndige personer med redusert eller manglende samtykkekompetanse?	Ja ○ Nei •	Les mer om pasienter, brukere og personer med redusert eller manglende samtykkekompetanse.		
Samles det inn personopplysninger om personer som selv ikke deltar (tredjepersoner)?	Ja ○ Nei ●	Med opplysninger om tredjeperson menes opplysninger som kan identifisere personer (direkte eller indirekte) som ikke inngår i utvalget. Eksempler på tredjeperson er kollega, elev, klient, familiemedlem, som identifiseres i datamaterialet. Les mer.		
8. Metode for innsamling	ng av personopplysninger			
Kryss av for hvilke datainnsamlingsmetoder og datakilder som vil benyttes	■ Papirbasert spørreskjema □ Elektronisk spørreskjema □ Personlig intervju □ Gruppeintervju □ Observasjon □ Deltakende observasjon □ Blogg/sosiale medier/internett □ Psykologiske/pedagogiske tester □ Medisinske undersøkelser/tester □ Journaldata (medisinske journaler)	Personopplysninger kan innhentes direkte fra den registrerte f.eks. gjennom spørreskjema,intervju, tester, og/eller ulike journaler (f.eks. elevmapper, NAV, PPT, sykehus) og/eller registre (f.eks. Statistisk sentralbyrå, sentrale helseregistre). NBI Dersom personopplysninger innhentes fra forskjellige personer (utvalg) og med forskjellige metoder, må dette spesifiseres i kommentar-boksen. Husk også å legge ved relevante vedlegg til alle utvalgs-gruppene og metodene som skal benyttes. Les mer om registerstudier. Dersom du skal anvende registerdata, må variabelliste lastes opp under pkt. 15 Les mer om forskningsmetoder.		
	□ Registerdata			
	■ Annen innsamlingsmetode			
Oppgi hvilken	Video-recordings of group conversations to elicit the targeted language structures.			
Tilleggsopplysninger				
9. Informasjon og sam	tykke			
Oppgi hvordan utvalget/deltakerne informeres	■ Skriftlig ■ Muntlig □ Informeres ikke	Dersom utvalget ikke skal informeres om behandlingen av personopplysninger må det begrunnes. Les mer. Vennligst send inn mal for skriftlig eller muntlig informasjon til deltakerne sammen med meldeskjema. Last ned en veiledende mal her. Les om krav til informasjon og samtykke. NB! Vedlegg lastes opp til sist i meldeskjemaet, se punkt 15 Vedlegg.		
Samtykker utvalget til deltakelse?	 Ja Nei Flere utvalg, ikke samtykke fra alle 	For at et samtykke til deltakelse i forskning skal være gyldig, må det være frivillig, uttrykkelig og informert. Samtykke kan gis skriftlig, muntlig eller gjennom en aktiv handling. For eksempel vil et besvart spørreskjema være å regne som et aktivt samtykke. Dersom det ikke skal innhentes samtykke, må det begrunnes. Les mer.		
10. Informasjonssikkerhet				
Spesifiser	Primary data (video-recordings) will be linked to personal information of the participants through metadata files. These files are accessible only to approved researchers.	NB! Som hovedregel bør ikke direkte personidentifiserende opplysninger registreres sammen med det øvrige datamaterialet. Vi anbefaler koblingsnøkkel.		
Hvordan registreres og oppbevares personopplysningene?	□ På server i virksomhetens nettverk □ Fysisk isolert PC tilhørende virksomheten (dvs. ingen tilknytning til andre datamaskiner eller nettverk, interne eller eksterne) ■ Datamaskin i nettverkssystem tilknyttet Internett tilhørende virksomheten ■ Privat datamaskin ■ Videoopptak/fotografi □ Lydopptak ■ Notater/papir ■ Mobile lagringsenheter (bærbar datamaskin, minnepenn, minnekort, cd, ekstern harddisk, mobiltelefon) ■ Annen registreringsmetode	Merk av for hvilke hjelpemidler som benyttes for registrering og analyse av opplysninger. Sett flere kryss dersom opplysningene registreres på flere måter. Med «virksomhet» menes her behandlingsansvarlig institusjon. NB! Som hovedregel bør data som inneholder personopplysninger lagres på behandlingsansvarlig sin forskningsserver. Lagring på andre medier - som privat pc, mobiltelefon,		
Annen registreringsmetode beskriv	Video-recordings and metadata files will be stored for long-term use.	minnepinne, server på annet arbeidssted - er mindre sikkert, og må derfor begrunnes. Silk lagring må avklares med behandlingsansvarlig institusjon, og personopplysningene bør krypteres.		

Hvordan er datamaterialet beskyttet mot at uvedkommende får innsyn?	While this data is intended to be an open resource, locally the data will be kept in locked offices and on password-protected computers.	Er f.eks. datamaskintilgangen beskyttet med brukernavn og passord, står datamaskinen i et låsbart rom, og hvordan sikres bærbare enheter, utskrifter og opptak?	
Samles opplysningene inn/behandles av en databehandler (ekstern aktør)?	Ja ○ Nei ●	Dersom det benyttes eksterne til helt eller delvis å behandle personopplysninger, f.eks. Questback, transkriberingsassistent eller tolk, er dette å betrakte som en databehandler. Slike oppdrag må kontraktsreguleres.	
Hvis ja, hvilken		Nontraktoregalores.	
Overføres personopplysninger ved hjelp av e-post/Internett?	Ja ∘ Nei •	F.eks. ved overføring av data til samarbeidspartner, databehandler mm.	
Hvis ja, beskriv?		Dersom personopplysninger skal sendes via internett, bør de krypteres tilstrekkelig.	
		Vi anbefaler ikke lagring av personopplysninger på nettskytjenester. Bruk av nettskytjenester må avklares med behandlingsansvarlig institusjon.	
		Dersom nettskytjeneste benyttes, skal det inngås skriftlig databehandleravtale med leverandøren av tjenesten. Les mer.	
Skal andre personer enn daglig ansvarlig/student ha tilgang til datamaterialet med personopplysninger?	Ja ● Nei ○		
Hvis ja, hvem (oppgi navn og arbeidssted)?	This data is collected as a long-term resource and shall be added to the growing Norwegian Sign Language corpus. This corpus is an open language resource for those who work with and are interested in Norwegian Sign Language. The project leader at NTNU will administer access to this dataset to those who apply for access (for research or teaching purposes). Videorecordings will be made available, but names of participants and exact birthdates, for example, will be removed from the metadata.		
Utleveres/deles personopplysninger med andre institusjoner eller land?	Nei Andre institusjoner Institusjoner i andre land	F.eks. ved nasjonale samarbeidsprosjekter der personopplysninger utveksles eller ved internasjonale samarbeidsprosjekter der personopplysninger utveksles.	
Spesifiser hvordan utleveringen foregår og hvilke institusjoner som skal ha tilgang.	The data is to be made available to students, teachers, and researchers in other (Norwegian) institutions of higher education. Researchers affiliated with international institutions may apply for access to the data in relation to collaboration on research projects or peer-review of research.		
11. Vurdering/godkjen	ning fra andre instanser		
Søkes det om dispensasjon fra taushetsplikten for å få tilgang til data?	Ja ∘ Nei ●	For å få tilgang til taushetsbelagte opplysninger fra f.eks. NAV, PPT, sykehus, må det søkes om dispensasjon fra taushetsplikten. Dispensasjon søkes	
Hvis ja, hvilke		vanligvis fra aktuelt departement.	
Søkes det godkjenning fra andre instanser?	Ja ∘ Nei •	I noen forskningsprosjekter kan det være nødvendig å søke flere tillatelser. Søkes det f.eks. om tilgang til data fra en registereier? Søkes det om tillatelse til forskning i	
Hvis ja, hvilken		en virksomhet eller en skole? Les mer om andre godkjenninger.	
12. Periode for behand	dling av personopplysninger		
Prosjektstart	08.01.2018	Prosjektstart Vennligst oppgi tidspunktet for når kontakt	
Planlagt dato for prosjektslutt	07.01.2021	med utvalget skal gjøres/datainnsamlingen starter. Prosjektslutt: Vennligst oppgi tidspunktet for når	
		datamaterialet enten skalanonymiseres/slettes, eller arkiveres i påvente av oppfølgingsstudier eller annet.	
Skal personopplysninger publiseres (direkte eller indirekte)?	 Ja, direkte (navn e.l.) Ja, indirekte (identifiserende bakgrunnsopplysninger) 	Les mer om direkte og indirekte personidentifiserende opplysninger.	
,	□ Nei, publiseres anonymt	NB! Dersom personopplysninger skal publiseres, må det vanligvis innhentes eksplisitt samtykke til dette fra den enkelte, og deltakere bør gis anledning til å lese gjennom og godkjenne sitater.	
Hva skal skje med datamaterialet ved prosjektslutt?	□ Datamaterialet anonymiseres ■ Datamaterialet oppbevares med personidentifikasjon	NB! Her menes datamaterialet, ikke publikasjon. Selv om data publiseres med personidentifikasjon skal som regel øvrig data anonymiseres. Med anonymisering menes at datamaterialet bearbeides slik at det ikke lenger er mulig å føre opplysningene tilbake til enkeltpersoner.	
		Les mer om anonymisering av data.	

Planlagt dato for avsluttet behandling av personopplysninger:	07.01.2118	NB! Merk at "Planlagt dato for avsluttet behandling av personopplysninger" må være senere enn "Planlagt dato for prosjektslutt" over.			
Oppgi hvorfor	 Oppbevares for oppfølgingsstudier/videre forskning Oppbevares for undervisningsformål Annet 	Hovedregelen for videre oppbevaring av data med personidentifikasjon er samtykke fra den registrerte. Årsaker til oppbevaring kan være planlagte oppfølgingsstudier, undervisningsformål eller annet. Datamaterialet kan oppbevares ved egen institusjon, offentlig arkiv eller annet. Les om arkivering hos NSD.			
Annet, beskriv	This data will join the Norwegian Sign Language corpus, which is a long-term language resource also available to members of the deaf community.				
Hvor skal datamaterialet oppbevares?	At OsloMet and other approved institutions of higher education in Norway.				
13. Finansiering					
Hvordan finansieres prosjektet?		Fylles ut ved eventuell ekstern finansiering (oppdragsforskning, annet).			
14. Tilleggsopplysning	14. Tilleggsopplysninger				
Tilleggsopplysninger	We would like to reiterate that the intention of this project is to collect samples of Norwegian Sign Language that can act as a long-term resource for students, researchers, and the Deaf community. The data will be open and accessible, and because the data is composed of video-recordings and meta-data, we will not be anonymizing the data.	Dersom prosjektet er del av et prosjekt (eller skal ha data fra et prosjekt) som allerede har tilrådning fra personvernombudet og/eller konsesjon fra Datatilsynet, beskriv dette her og oppgi navn på prosjektleder, prosjekttittel og/eller prosjektnummer.			
15. Vedlegg	15. Vedlegg				
Vedlegg	Antall vedlegg: 3. • research_proposal_kristian_skedsmo_oir_in_nts.pdf • forespoersel_om_deltakelseog_samtykkeerklaering.p df • metadata_questionnaire.doc				



Kristian Skedsmo Postboks 4, St. Olavs plass 0130 OSLO

Vår dato: 26.04.2018 Vår ref: 60248 / 3 / OASR Deres dato: Deres ref:

Tilrådning fra NSD Personvernombudet for forskning § 7-27

Personvernombudet for forskning viser til meldeskjema mottatt 12.04.2018 for prosjektet:

60248 Other-initiated repair in Norwegian Sign Language

Behandlingsansvarlig Høgskolen i Oslo og Akershus, ved institusjonens øverste leder

Daglig ansvarlig Kristian Skedsmo

Vurdering

Etter gjennomgang av opplysningene i meldeskjemaet og øvrig dokumentasjon finner vi at prosjektet er unntatt konsesjonsplikt og at personopplysningene som blir samlet inn i dette prosjektet er regulert av § 7-27 i personopplysningsforskriften. På den neste siden er vår vurdering av prosjektopplegget slik det er meldt til oss. Du kan nå gå i gang med å behandle personopplysninger.

Vilkår for vår anbefaling

Vår anbefaling forutsetter at du gjennomfører prosjektet i tråd med:

- opplysningene gitt i meldeskjemaet og øvrig dokumentasjon
- •vår prosjektvurdering, se side 2
- eventuell korrespondanse med oss

Meld fra hvis du gjør vesentlige endringer i prosjektet

Dersom prosjektet endrer seg, kan det være nødvendig å sende inn endringsmelding. På våre nettsider finner du svar på hvilke endringer du må melde, samt endringsskjema.

Opplysninger om prosjektet blir lagt ut på våre nettsider og i Meldingsarkivet

Vi har lagt ut opplysninger om prosjektet på nettsidene våre. Alle våre institusjoner har også tilgang til egne prosjekter i Meldingsarkivet.

Vi tar kontakt om status for behandling av personopplysninger ved prosjektslutt

Ved prosjektslutt 07.01.2021 vil vi ta kontakt for å avklare status for behandlingen av personopplysninger.

Se våre nettsider eller ta kontakt dersom du har spørsmål. Vi ønsker lykke til med prosjektet!

Dokumentet er elektronisk produsert og godkjent ved NSDs rutiner for elektronisk godkjenning.

Vennlig hilsen

Marianne Høgetveit Myhren

Øivind Armando Reinertsen

Kontaktperson: Øivind Armando Reinertsen tlf: 55 58 33 48 / Oivind.Reinertsen@nsd.no

Vedlegg: Prosjektvurdering

Personvernombudet for forskning



Prosjektvurdering - Kommentar

Prosjektnr: 60248

SAMARBEID

Du har opplyst i meldeskjema at prosjektet er en internasjonal samarbeidsstudie, hvor OsloMet - storbyuniversitetet er behandlingsansvarlig for den norske delen av prosjektet. Personvernombudet forutsetter at ansvaret for behandlingen er avklart mellom institusjonene, og anbefaler at dere inngår en avtale som omfatter ansvarsfordeling, hvem som initierer prosjektet, bruk av data, eventuelt eierskap.

FORMÅL.

Formålet med prosjektet er å undersøke grammatikken i norsk tegnspråk.

INFORMASJON OG SAMTYKKE

Du har opplyst i meldeskjema at utvalget vil motta skriftlig og muntlig informasjon om prosjektet, og samtykke skriftlig til å delta. Vår vurdering er at informasjonsskrivet til utvalget er godt utformet. Vi ber likevel om at det klart fremgår at det er OsloMet - storbyuniversitetet som er behandlingsansvarlig institusjon.

UTVALG

Det fremgår av meldeskjema at du vil behandle sensitive opplysninger om helseforhold. Da utvalget består av døve anser vi dette som nødvendig for formålet.

DATAINNSAMLING OG PROSJEKTSLUTT

Personvernombudet forutsetter at du behandler alle data i tråd med OsloMet - storbyuniversitetet sine retningslinjer for datahåndtering og informasjonssikkerhet. Vi legger til grunn at bruk av privat pc/mobil lagringsenhet er i samsvar med institusjonens retningslinjer.

Du har opplyst i meldeskjema at personopplysninger publiseres. Personvernombudet har lagt til grunn at du innhenter samtykke fra den enkelte informanten til publiseringen. Vi anbefaler at hver enkelt informant får anledning til å lese og godkjenne sine opplysninger før publisering.

Prosjektslutt er oppgitt til 07.01.2021. Det fremgår av meldeskjema/informasjonsskriv at dere skal lagre datamaterialet med personopplysninger til

07.01.2118 for undervisningsformål. Datamaterialet vil inngå i et fremtidig korpus for norsk tegnspråk, og vil være tilgjengelig for døvesamfunnet. Vi forutsetter at det blir eksplisitt samtykke til lagring for all fremtid.

Forespørsel om deltakelse i forskningsprosjektet

«Å skape felles forståelse - med norsk tegnspråk»

Bakgrunn og formål

Formålet med filmingen er å skaffe materiale for å kunne undersøke hvordan tegnspråkbrukere i en reell samtalesituasjon diskuterer, bytter på å snakke, forhandler om mening og arbeider med å oppnå felles forståelse. Videoopptaket skal i første omgang brukes til en ph.d-studie ved OsloMet, der undersøkelsesmetoden som skal brukes er samtaleanalyse. Prosjektet skal være ferdigstilt januar 2021. Formålet med studien er å få økt innsikt i hvordan språket brukes til å utføre ulike kommunikative handlinger i samtaler, blant annet som et bidrag til tegnspråktolkers praktiske ferdigheter i norsk tegnspråk. Prosjektet jeg holder på med nå, skal etter planen avsluttes 07.01.2021. Etter dette prosjektet skal opptakene kunne brukes av tegnspråkforskere og tegnspråkstudenter til analyser og forskning.

Dere ble kontaktet fordi dere er en gruppe med tegnspråklige som har samtaler, uavhengig av datainnsamlingen.

Hva innebærer deltakelse i studien?

Deltakelsen i datainnsamlingen består i å akseptere å bli filmet på jobb et antall ganger, med ett eller flere videokameraer, gjennom hele arbeidsdagene. Det skal ikke gjennomføres noen intervjuer eller spørreundersøkelser. En eller to personer vil være til stede hele, eller deler av tiden, for å se til at videofilmingen fungerer.

(Det er ingen vurdering av dere eller hva dere gjør som «bra» eller «dårlig», «riktig» eller «feil». Jeg vil bare filme helt vanlig samtale med vanlige folk.)

Hva skjer med informasjonen om deg?

Videoopptakene skal ikke gjøres tilgjengelige for alle, men vil gjøres tilgjengelig for studenter og forskere som undersøker tegnspråk. De vil bli lagret sikkert på OsloMet sitt system, for dette formålet, for all fremtid. Deler av opptakene vil bli transkribert med oppdiktede navn. Stillbilder fra videopptakene kan brukes i artikler, oppgaver og avhandlinger, og korte utdrag kan brukes i presentasjoner på konferanser og undervisning. Bilder hentet fra videoopptakene vil selvfølgelig være gjenkjennelige, siden det ikke går an å anonymisere video av tegnspråk uten å gjøre det vanskelig å se hva som blir sagt.

Frivillig deltakelse

Det er frivillig å delta i studien, og du kan når som helst trekke ditt samtykke uten å oppgi noen grunn. De som vil kan få se gjennom videomaterialet når det er redigert, og få mulighet til å si fra dersom det er bestemte sekvenser som dere ikke vil at noen andre skal se. Da blir disse sekvensene ikke brukt i prosjektet mitt, og de blir klippet ut av materialet før andre får tilgang til det.

Studien er meldt til Personvernombudet for forskning, NSD - Norsk senter for forskningsdata AS.

Tusen takk for at dere bidrar til å gi mer kunnskaper om norsk tegnspråk!

Kristian Skedsmo, ph.d.-stipendiat, OsloMet.

Samtykke til deltakelse i studien «Å skape felles forståelse - med norsk tegnspråk»

Jeg har mottatt informasjon o	m datainnsamlingen, og er villig til å de	elta
Place,	Date:	
Signatur:		

For å se innholdet på tegnspråk, klikk her.

Hei!

For lenge siden var jeg på besøk hos flere grupper og filmet tegnspråksamtale. Tusen takk for at jeg fikk lov. Hva skjer nå?

Jeg samlet mange opptak og plukket ut deler av dem på 10 minutter. Så undersøkte jeg disse delene og lette etter situasjoner med problemløsing. For eksempel hvis noen ikke oppfatter eller forstår hva en annen sier. Dere har sikkert sett tegnspråktolker som sier «Unnskyld, kan du gjenta?» eller «Unnskyld, kan du gå litt tilbake?». Døve gjør ikke sånn. Døve løser problemene på andre måter, mer effektivt, så kan samtalen fortsette.

Dere har alle godkjent at jeg får lov til å vise videoklipp i forelesning og hvis jeg skriver artikler eller bøker kan jeg bruke bilder. Men verden og teknologien utvikler seg. Nå er det artikler på internett som har videoklipp i selve teksten. Eller at teksten har en link der man kan åpne og se videoklipp. Før, da jeg snakket med dere, visste jeg ikke dette. Derfor må jeg kontakte dere nå for å få godkjenning til å bruke videoklipp også i artikler på internett.

Jeg legger dem ikke ut på Facebook, Twitter eller YouTube. Det er i artikler på engelsk fagspråk og det er typisk språkforskere som leser det. Men i utgangspunktet kan alle som vil gå inn og se.

Så. Jeg trenger at dere, en og en, sender meg en epost og sier at det er ok. Da kan jeg gi ut artiklene.

Hvis du lurer på hva dette vil bety, eller har spørsmål? Si fra til meg. Du kan kontakte meg på sms eller FaceTime, e-post eller Skype. Nummer og adresser står nederst. Hvis du vil se videoklippene som dere er med i, kan jeg sende til deg. Bare si fra.

Dette haster litt for meg, så hvis du tenker at dette er helt ok, så er det fint om du svarer at det er ok med en gang.

Vennlig hilsen

Kristian Skedsmo

SMS/FaceTime 41 23 18 99

Epost/Skype: <u>kristian.skedsmo@oslomet.no</u>

Errata for Ph.D. dissertation "Troubleshooting in Norwegian Sign Language" Kristian Skedsmo (2021)

Page no.	Place at page	Original text	Corrected text	Explanation
English Abstract Last page.	last line of 2 nd §	that of the publication, as is the case in this study	that of the publication, as is the case in this study.	Missing period.
10	First reference	Article one Skedsmo, K. (2020)	Article one Skedsmo, K. (2020b)	Missing "b" in citation.
17	End of 1st §	publication by Research on Language and Social Interaction	publication by Research on Language and Social Interaction	Missing italics on two first words of journal title.
19	First line in Section 2.1	This thesis is built on CA both with regard to both research methods and theoretical	This thesis is built on CA both with regard to research methods and theoretical	2 nd "both" must be removed.
23	Last 3 lines	While Freud was mostly interested in explaining the reasons for errors, as a crucial part of their research on the organization of naturally occurring conversation, Schegloff et al. (1977) pioneered exploring how troubles	While Freud was mostly interested in explaining the reasons for errors, Schegloff et al. (1977), as a crucial part of their research on the organization of naturally occurring conversation, pioneered exploring how troubles	Reorganization of sentence to avoid misreading (agency).
25	12 th line of Section 2.4	They are face-threatening to both A and B.	They are face-threatening (Goffman 1967) to both A and B.	Missing citation.
39	1 st line of last §	Research on conversational repair seemingly as	Research on conversational repair seemingly has	Missing "h".
40	2 nd line of 2 nd §	if it was trouble of perception, as it is considered less face-threatening (Goffman, 1967)to	if it was trouble of perception, as it is considered less face-threatening to a	Superfluous citation (and missing space after bracket).
42	1 st line of last § before 2.7.3	In some cases, a "Huh?" or other format of repair-initiation	In some cases, a "Huh?" or another format of repair-initiation	Missing "an" in "another".

43	4 th line of last §	[perspec-] tive of these kinds of trouble of around to be about	[perspec-] tive of these kinds of trouble around to be about	Last "of" is an error.
46	5 th line from bottom	Instead, CA operates on a surface level	CA operates on a surface level	"instead, " is an error.
59	5 th line of Section 3.2	Potter (1997) claims that data is naturally occurring	Potter (1997) claims that data are naturally occurring	Grammatic error (is/are).
60	11 th line	factors considered, I will claim that the data is at least	factors considered, I will claim that the data are at least	As above.
65	Last line	I was often by the divergence between	I was often surprised by the divergence between	Missing word; "surprised"
70	4 th line of 2 nd §	The analyses might also be useful for other researchers interesting in	The analyses might also be useful for other researchers interested in	Wrong grammar.
72	2 nd line in Section 3.7.1	Research on, and presentations of, signed languages <u>have</u> made use of	Research on, and presentations of, signed languages have made use of	Underline should not be there.
80	Start of last § before Section 3.7.4	A photo-based graphic transcript, as the ones made with frame-grabs from video data, gives very limited possibilities for anonymizing the participants, which will be discussed in Section 3.7.	A photo-based graphic transcript, as the ones made with frame-grabs from video data, gives very limited possibilities for anonymizing the participants, which will be discussed in Section 3.8.3.	Cross- reference to wrong section.
82	Last line of first § of Section 3.8.2	(see Appendix 7, application to NSD and Appendix 8, approve from NSD).	(see Appendix 7, application to NSD and Appendix 8, approval from NSD).	Should be "approval", not "approve".
83	4 th line of 2 nd § of Section 3.8.3	[responsi-] bility of treat them with respect.	[responsi-] bility of treating them with respect.	Should be "treating", not "treat".

85	Last §	The sections of this chapter	The sections of this chapter	All three
	before	will briefly present results of	will briefly present results of	citations to my
	Section 4.1	the study. First come findings	the study. First come findings	three articles
		from the qualitative and	from the qualitative and	missing.
		quantitative examinations of	quantitative examinations of	
		the distribution of formats of	the distribution of formats of	
		repair-initiation in NTS (Ref?).	repair-initiation in NTS	
		Then results from the study	(Skedsmo, 2020b). Then	
		of multiple sequences of	results from the study of	
		repair-initiation will be	multiple sequences of repair-	
		presented (Ref?). Finally, the	initiation will be	
		experiment with offering an	presented (Skedsmo, 2020a).	
		alternative to the traditional,	Finally, the experiment with	
		glossed transcripts of signed	offering an alternative to the	
		language data will be	traditional, glossed	
		reported (Ref?).	transcripts of signed language	
			data will be reported	
			(Skedsmo, in press).	
90	6 th line of	like interpreters who are have	like interpreters who have to	"have" should
	2 nd §	to minimize	minimize	be removed.
90	Last line	The following section	The following section	Reference
	before	presents results from these	presents results from these	missing.
	Section 4.3	efforts (Reference?).	efforts (Skedsmo, in press).	
103	6 th line	other-repeat of a specific sign	other-repeat of a specific sign	Missing "or".
	from the	or word that might be treated	or word that might be treated	
	top	as unintelligible, unclear,	as unintelligible, unclear or	
		unknown.	unknown.	
105	4 th line of	and English, Crawley (2016)	and English, Crawley (2016)	Inconsistent
	3 rd §	extracted ambiguities and	extracted ambiguity and	grammar.
		underspecificity as two major	underspecificity as two major	Should be
		sorts of	sorts of	singular in
				both cases.