

Data Request form YOUth (version 6.0, February 2020)

Introduction

The information you provide here will be used by the YOUth Executive Board, the Data Manager, and the Data Management Committee to evaluate your data request. Details regarding this evaluation procedure can be found in the Data Access Protocol.

All data requests will be published on the YOUth researcher's website in order to provide a searchable overview of past, current, and pending data requests. By default, the publication of submitted and pending data requests includes the names and institutions of the contact person and participating researchers as well as a broad description of the research context.

After approval of a data request, the complete request (including hypotheses and proposed analyses) will be published. If an applicant has reasons to object to the publication of their complete data request, they should notify the Project Manager, who will evaluate the objection with the other members of the Executive Board and the Data Management Committee. If the objection is rejected, the researcher may decide to withdraw their data request.

Section 1: Researchers

In this section, please provide information about the researchers involved with this data request.

- Name, affiliation and contact information of the contact person
- Name and details of participating researchers (e.g. intended co-authors)
- Name and details of the contact person within YOUth (if any)

Contact person for the proposed study:	
Name:	Gijs A. Holleman
Institution:	Utrecht University
Department:	Experimental Psychology, Faculty of Social Sciences (FSW)
Address:	Heidelberglaan 1, 3584 CS UTRECHT
Email:	g.a.holleman@uu.nl
Phone:	06-53462224

Participating researcher:	
Name:	Roy Hessels
Institution:	Utrecht University
Department:	Experimental Psychology, Faculty of Social Sciences (FSW)
Address:	Heidelberglaan 1, 3584 CS UTRECHT
Email:	r.s.hessels@uu.nl
Phone:	

Participating researcher:	
Name:	Ignace Hooge
Institution:	Utrecht University
Department:	Experimental Psychology, Faculty of Social Sciences (FSW)
Address:	Heidelberglaan 1, 3584 CS UTRECHT
Email:	i.hooge@uu.nl
Phone:	

Participating researcher:	
Name:	Chantal Kemner
Institution:	Utrecht University
Department:	Experimental Psychology, Faculty of Social Sciences (FSW)
Address:	Heidelberglaan 1, 3583 CS UTRECHT
Email:	c.kemner@uu.nl
Phone:	

Participating researcher:	
Name:	Maja Deković
Institution:	Utrecht University
Department:	Clinical and Family Studies, Faculty of Social Sciences (FSW)
Address:	Heidelberglaan 1, 3583 CS UTRECHT
Email:	m.dekovic@uu.nl
Phone:	

Participating researcher:	
Name:	Jorg Huijding
Institution:	Utrecht University
Department:	Clinical and Family Studies, Faculty of Social Sciences (FSW)
Address:	Heidelberglaan 1, 3583 CS UTRECHT
Email:	j.huijding@uu.nl
Phone:	

Participating researcher:	
Name:	René Kager
Institution:	Utrecht University
Department:	Utrecht Institute of Linguistics (OTS)
Address:	Trans 10, 3512 JK UTRECHT
Email:	r.w.j.kager@uu.nl
Phone:	

Contact person within YOUth (if any)	
Name:	Chantal Kemner
Institution:	Utrecht University
Department:	Experimental Psychology, Faculty of Social Sciences (FSW)
Address:	Heidelberglaan 1, 3583 CS UTRECHT
Email:	c.kemner@uu.nl
Phone:	

Section 2: Research context

In this section, please briefly describe the context for your research plans. This section should logically introduce the next section (hypotheses). As mentioned, please note that this section will be made publicly available on our researcher's website after submission of your request.

Please provide:

- The title of your research plan
- A very brief background for the topic of your research plan

- The rationale for and relevance of your specific research plan
- The specific research question(s) or aim(s) of your research (Please also provide a brief specification)
- A short description of the data you request

References can be added at the end of this section (optional).

Title of the study
Gaze behavior during parent-child interaction: Turn-taking, conversation topic, speech content.

Background of the topic of your research plan, rationale, relevance (max. 500 words)
<p>Gaze behavior is important for human interaction. In daily social encounters with others, one's gaze may support and regulate social interaction, for example, during conversations. Although the role of gaze behavior in turn-taking has often been studied using observational techniques (Kendon, 1967; Duncan & Fiske, 1977), more recently, new eye-tracking techniques have been applied to measure gaze behavior of individuals during face-to-face interactions with higher spatial and temporal resolution (Hessels, Holleman, Kingstone, Hooge, & Kemner, 2019; Ho, Foulsham, & Kingstone, 2015; Rogers, Speelman, Guidetti, & Longmuir, 2018).</p> <p>In our previous eye-tracking study on gaze behavior during parent-child conversations in the YOUth cohort (Holleman et al., 2021; under review), we investigated how aggregate measures of speech and gaze behavior differed between parents and children, as a function of conversation topic, and who was speaking. We uncovered that children spoke more in cooperative interactions with their parents whereas parents spoke more in the conversations about conflictive topics. Also, parents gazed more at the eyes of their children in the conflict-scenario compared to the cooperation-scenario. Finally, we found that both parents and children looked more at the other's mouth region while listening compared to while speaking. However, there were also several open questions left, namely:</p> <ol style="list-style-type: none"> 1) Where do parents and children look at each other's faces during turn-transitions? 2) Does gaze to facial features during turn-transitions depend on conversation topic? 3) Is gaze behavior to facial features during parent-child conversation related to the speech content? (i.e. what is being said and by whom). 4) Is gaze behavior to facial features during parent-child conversation related to prosodic speech content (i.e. emphasis, intonation)? <p>These questions will be the focus of our current study. To answer these questions, we will use complete sets (i.e. both parents and children completed two conversations) with high eye-tracking data quality which we will analyze in-depth and conduct additional analyses on.</p>

The specific research question(s) or aim(s) of your research

Research questions

- 1) Where do parents and children look at each other's faces during turn-transitions?
- 2) Does gaze to facial features during turn-transitions depend on conversation topic?
- 3) Is gaze behavior to facial features during parent-child conversation related to the speech content? (i.e. what is being said and by whom).
- 4) Is gaze behavior to facial features during parent-child conversation related to prosodic information of speech content (i.e. emphasis, intonation)?

Summary of the data requested for your project: Please indicate which data you request to answer your research question.

A subset of the CHDUALET dataset.
Eye-tracking + audio files + video files.

The selection is made based on a data-quality assessment on this dataset in my previous project. The list of required recordings will be provided to the data manager.

References (optional)

- Caspers, J. (2003). Local speech melody as a limiting factor in the turn-taking system in Dutch. *Journal of Phonetics*, 31(2), 251-276.
- Duncan, S., & Fiske, D. W. (2015). *Face-to-face interaction: Research, methods, and theory*: Routledge.
- Hessels, R. S., Holleman, G. A., Kingstone, A., Hooge, I. T., & Kemner, C. (2019). Gaze allocation in face-to-face communication is affected primarily by task structure and social context, not stimulus-driven factors. *Cognition*, 184, 28-43.
- Holleman, G.A., Hooge, I.T.C., Huijding, J., Dekovic, M., Kemner, C., & Hessels, R.S. (2021, under review). Gaze and speech in parent-child interactions: The role of conflict and cooperation
- Ho, S., Foulsham, T., & Kingstone, A. (2015). Speaking and listening with the eyes: gaze signaling during dyadic interactions. *PLoS One*, 10(8), e0136905.
- Kendon, A. (1967). Some functions of gaze-direction in social interaction. *Acta psychologica*, 26, 22-63.
- Rogers, S. L., Speelman, C. P., Guidetti, O., & Longmuir, M. (2018). Using dual eye tracking to uncover personal gaze patterns during social interaction. *Scientific reports*, 8(1), 1-9.
- Ten Bosch, L., Oostdijk, N., & Boves, L. (2005). On temporal aspects of turn taking in conversational dialogues. *Speech Communication*, 47(1-2), 80-86.
- Schegloff, E. A. (1998). Reflections on studying prosody in talk-in-interaction. *Language and speech*, 41(3-4), 235-263.

Section 3: Hypotheses

In this section, please provide your research hypotheses. For each hypothesis:

- Be as specific as possible
- Provide the anticipated outcomes for accepting and/or rejecting the hypothesis

Hypotheses

We do not have specific hypotheses that will be tested statistically. Our goal is to uncover and describe patterns of gaze behavior, turn-taking and their relation to conversation topic and speech content. That is, the in-depth descriptions of patterns of gaze and speech behavior are the goal of the paper.

Section 4: Methods

In this section, you should make clear how the hypotheses are tested. Be as specific as possible.

Please describe:

- The study design and study population (Which data do you require from which subjects?)
- The general processing steps (to prepare the data for analysis)
- The analysis steps (How are the data analysed to address the hypotheses? If possible, link each description to a specific hypothesis)
- Any additional aspects that need to be described to clarify the methodological approach (optional)

Study design, study population and sample size (e.g. cross-sectional or longitudinal; entire population or a subset; substantiate your choices)

Study population: Children (age 8-10 year old) and their parents. We will use a subset of the CHDUALET data.

This study consists of two short conversational-scenarios, one conflict and one cooperation scenario, of five minutes per conversation.

General processing steps to prepare the data for analysis

We have already processed most of the data relevant to this project. As stated previously, we will look at a subset of the CHDUALET dataset and pick 5-8 sets for further analyses. For these sets, we already have processed the raw eye-tracking data and the video-data. Gaze data has been analyzed using methods developed by Hessels, Benjamins, Cornelissen & Hooge (2018), see Hessels et al. (2019) for an example.

For this study, several additional processing steps will be necessary for the audio files. Specifically, we need to annotate and transcribe the audio-recordings of the conversations. See below for more details.

Specific processing and analysis steps to address the hypotheses

To obtain specific variables regarding turn-variables and their relation to the topic and content of the conversation (i.e. what is being said), we will manually transcribe and annotate specific turn-taking variables from transcriptions of the conversations. To this end, we will use the turn-variables and their definitions offered by Duncan & Fiske (2015) and Ten Bosch, Oostdijk & Boves (2005). This will be done by two coders to assess inter-rater reliability.

Turn variables

- 1) Turn-length
- 2) Number of turns
- 3) Turn-transitions periods (e.g. gaps, overlap, simultaneous starts)
- 4) Fillers, back-channels

These variables are based on previous work on turn-taking by Duncan & Fiske (1977) and Ten Bosch et al. (2005).

Speech-content variables

- 1) Annotation of speech acts: questions, answers, demands.
- 2) Transcriptions of speech acts to label emotional/affective content: interpersonal affect, parental style.
- 3) Analysis of prosodic information in speech acts with speech-content: emphasis, intonation.

These variables are based on previous work by Duncan & Fiske (1977), Caspers (2003) and Schegloff (1998).

Additional methodological aspects (optional)

Section 5: Data request

In this section, please specify as detailed as possible which data (and from which subjects) you request.

Data requested

CHDUALET (subset).

Data request for the purpose of:

- Analyses in order to publish
 Analyses for data assessment only (results will not be published)

Publication type (in case of analyses in order to publish):

- Article or report
 PhD thesis
 Article that will also be part of a PhD thesis

Would you like to be notified when a new data lock is available?

Yes

No

Upon approval of a data request, the complete request will be made publicly available on our researcher's website by default.

Do you agree with publishing the complete request on our researcher's website after it is approved?

Yes

No. Please provide a rationale