

## **Appendix A**

Info and consent letter sent to the caregivers of the participants (translated version)

Do you want to participate in the “infants sensitivity to nonverbal communicative signal” study?

This is a request for your participation in a study that aims at studying whether infants between the ages of 6 to 18 months old recognize the “eyebrow flash” as an ostensive signal. The study is subject to the institute of psychology at University of Tromsø and will accumulate in the final paper of a psychology student. In this letter you will be oriented about what participating would mean for you.

### **Who can participate?**

The child in question needs to be between 6 and 18 months and not be diagnosed with any sensory or neurological disabilities.

### **The aim of the study**

Nonverbal communicative signals can be signals from an addresser that makes the addressee realize that the following information is going to be of significance to them. An example is eye contact which maintain the addressee’s attention for further communication. For infants these nonverbal communicative signals are important for development of cultural, linguistic, and social skills. Infants will therefore naturally orient towards them. “Eyebrow flash” has been suggested to be such a signal that infants naturally orient towards. If this is the case eyebrows can be used in social situations to help make clear to the infants that the information being communicated is worthy of attention. There has been little exploration of

this topic in research, this study can thus be an important starter for a complete understanding of infant social understanding and learning, and its facilitation.

The data for this study will be gathered and analyzed by student Emilie Suhr and used for the final paper (hovedoppgave) in her psychology degree at the university of Tromsø. The project is overseen by professor Mikołaj Hernik.

The study is done at a group level, so there will not be given individual feedback on any particular child's performance, and no developmental or diagnostical evaluation will take place during any point.

### **Who is responsible for the project?**

The institute for psychology at UiT Norway's arctic university.

### **What is needed to participate?**

Ideally the number of participants for this study is 33 infants, but the data gathering will be stopped in the middle of November.

All data will be gathered over Zoom, participation will last about 1-3 minutes. If you would like to participate, a time that fits your schedule will be agreed upon. The child must sit at your lap and the web camera must be pointed at the child's face so that the child's eyes are clearly visible on video. You will be sent a link to a Youtube video. The video has two figures that contains two lines that moves. There will also be shown colors and patterns to maintain the child's attention. As the caregiver there is no need for interaction with the child during the trial. As long as the child's attention is directed towards the screen in the

beginning, no more help should be given. The surrounding area during the trial should contain as little distraction as possible, a room with no other people would be best. During the trial you will be filmed through your web camera.

The child's age and gender will be registered in the data, but no further information about you or your child will be necessary.

### **Consent and privacy:**

Participation is voluntary and you can at any point withdraw your consent, also after filming. If you want to withdraw consent after filming, the film and the analysis of your film will be deleted, this will not lead to any negative consequences for you.

The film will be stored on an encrypted USB housed at UiT. The student and supervisor will have access to this USB. The videos will be deleted after at least 5 years after the paper is handed in, this is in line with the recommendations of American psychological association. And is because the data might need to be reanalyzed at some point if the paper is to be published. If this happens, no personal data will be shared, and you will not be identifiable through the paper. In the analysis your information will be transformed to numbers, in other words you will be anonymous. The data will not be used for other purposes than this study. The people who treat your data before it is made anonymous have a duty of confidentiality.

We will be handling the information provided by you based on your consent. NSD – Norsk senter for forskningsdata (Norwegian center for science data) have deemed the consideration made to privacy in this study to be in line with the privacy laws.

### **Your rights**

As long as you and your child can be identified in the data set you are in your rights to:

- - Know about the info we are processing about you and get a copy of those data.
- - Change the information about you and your child should you deem them as misinterpreted.
- - Have the information about you and your child deleted
- - Send a formal complaint to Datatilsynet about the processing of the information about you and your child.

**Contact:**

If you have questions about the study or want to know more about your rights you can contact:

- Supervisor Mikołaj Hernik, professor at the institute for psychology at UiT:  
[mikolaj.l.hernik@uit.no](mailto:mikolaj.l.hernik@uit.no)
- Psychology student Emilie Suhr, [esu014@uit.no](mailto:esu014@uit.no)

If you have questions about how NSDs assessment of the project you can contact:

- NSD – Norsk senter for forskningsdata AS at [personverntjenester@nsd.no](mailto:personverntjenester@nsd.no) or by

phone: +47 55 58 21 17

Sincerely,

Mikołaj Hernik  
Professor Psychology

Emilie Suhr  
student.

## Consent form

Consent will be given orally via Zoom. I have received and understood the information about the study “spedbarns sensitivitet til nonverbale kommunikative signaler”, and I have had the opportunity to ask questions.

I formally consent to:

- - to me and my child participating in the study as described above.
- - That the video of me and my child will be analyzed by the student and the supervising professor, and another student that is blind to the hypothesis (who also is obliged to the code of confidentiality).
- - That our contribution will be transformed to numbers that will be a part of an analysis at group level.
- - That information about my child will be processed until the study concludes.
- - That the video tape is stored for 5 years until they are deleted.

I can confirm that:

- - My child is in between the ages 6 to 18 months at the testing date.
- - That my child is of typical neurological and sensory development.

## **Appendix B**

The script the participants were read before administration (translated version)

Did you get a chance to read the info and consent letter you were sent before this meeting?

### **If yes:**

I will start the recording shortly. Do you have any questions about participation?

I will now ask for your oral consent to:

- That your child participates in this study
- That you and your child is visible on a screen recording that is going to be analyzed by me in relations to my main thesis.
- That the information gathered on your child will be transformed to data that will be worked on until the end of this semester.
- That the videos of you will be stored on an encrypted USB until it is deleted at after at least five years.

### **If no:**

This study is being conducted in relation to my final thesis that I will hand in as my last paper written at my psychology schooling. It will be about young children's sensitivity to ostensive signals. Ostensive signals are social signals we can pick up on during interactions with others, that makes it clear to us that we are the ones being addressed in this situation. Young children naturally orient towards these kinds of signals, and this study will investigate if children between the ages of 6 to 18 months are sensitive to the eyebrow flash as an ostensive signal. Do you have any additional questions about the scope for this study?

I will start the recording shortly. Do you have any questions about participation?

I will now ask for your oral consent to:

- That your child participates in this study
- That you and your child is visible on a screen recording that is going to be analyzed by me in relations to my main thesis.
- That the information gathered on your child will be transformed to data that will be worked on until the end of this semester.
- That the videos of you will be stored on an encrypted USB until it is deleted at after at least five years.

#### **Administrator checklist**

- Check the angle
- send the appropriate video
- tell the parent to check the volume on the computer
- remind them to press full screen
- remind the parent to close their eyes
- tell them that you will alert them when the video is over
- tell them to press play when ready

#### **After administration**

Thank you for participating in this study. Before we log off, I will remind you that you can still contact me or my supervisor on e-mail if you were to have questions about this study or participation after this call has ended

## Appendix C

**Table 1**

*Summary of homogeneity of variance using the Lavene's statistic*

PS	<i>F</i>	<i>df</i> 1	<i>df</i> 2	<i>p</i>
Test trial 1 + 2	0.04	3	13	.99
Test trial 3 + 4	0.72	3	13	.56
Target to the left first	0.45	1	6	.53
Target to the right first	2.04	1	7	.20
Looking left	1.75	3	13	.21
Looking right	1.98	3	13	.17
Target as disc	0.96	1	8	.36
Target as square	0.31	1	5	.60
Looking at disc	1.56	3	13	.25
Looking at square	1.76	3	13	.21
Test trial 1	0.79	3	13	.52
Test trial 2	1.50	3	12	.27
Test trial 3	0.41	3	12	.75
Test trial 4	2.16	3	12	.15

*Note.* Here the PS variables are presented in the order in which they were presented in the text.

**Table 2***Summary of normality tests using the Shapiro-Wilk statistic*

PS	<i>W</i>	<i>df</i>	<i>p</i>
Test trial 1 + 2 – Test trial 3 + 4	.97	16	.88
Target first to the left – Target first to the right	.91	8	.33
Looking left	.95	17	.50
Looking right	.94	17	.31
Target as disc	.87	7	.25
Target as square	.92	7	.53
Looking at disc	.97	17	.83
Looking at square	.96	17	.69
Test trial 1	.95	16	.45
Test trial 2	.96	16	.74
Test trial 3	.97	16	.77
Test trial 4	.94	16	.32

*Note.* The PS variables presented in the order they are mentioned in the text. For the PS variables that were used to do paired sample t-tests the normality is assessed for their differences.

