

The DEVCOM Lab

Newsletter 2025

About the Lab

The DEVCOM Lab belongs to the Department of Philosophy, Classics, History of Art and Ideas (IFIKK) at the University of Oslo. We are an interdisciplinary research group which combines insights from linguistics, psychology and philosophy to investigate how children's communicative abilities develop. The lab hosts the projects:



DEVCOM: The Developing Communicator: Pragmatics, Sense Conventions and Non-Literal Uses of Language with funding from the European Research Council, and Creativity and Convention in Pragmatic Development with funding from The Research Council of Norway.

The DEVCOM Lab has had a goal to fill a critical gap in cognitive theories on pragmatic development, that is, children's acquisition of the cognitive abilities enabling the expression and comprehension of communicative intentions, and has investigated the hypothesis that children's growing sensitivity to sense conventions, which determine the publicly accepted meaning of words in their language, impedes children's pragmatic reasoning with non-literal uses in the pre-school years.

Ingrid Lossius Falkum – Principal Investigator



I am the PI of The DEVCOM Lab, which over the course of the project periods have included 4 postdocs, 3 PhD students, 1 adjunct professor (Nicholas Allott) and several research assistants. In our lab, we use a variety of experimental techniques, including both offline measures (picture selection, questionnaires, verbal explanation tasks) and online measures (reaction times, eye-tracking pupillometry). The DEVCOM projects have ongoing collaborations with researchers in linguistics, philosophy and developmental psychology at University College London (Nausicaa Pouscoulous, Deirdre Wilson), CNRS (Ira Noveck), University of Cambridge (Elspeth Wilson), Manchester Metropolitan University (Ekaterina Ostaschenko), University Libre de Bruxelles (Mikhail Kissine) and University of the Basque Country (Agustín Vicente).

Results from the projects have been presented at several international conferences and workshops. We organized a panel on the topic of the projects at the 18th International Pragmatics Conference in Brussels 9-14 July 2023, and the project team hosted The Developing Communicator Conference at the University of Oslo 29-31 May 2024. Several papers emerging from these projects are currently in preparation or under review. A special issue on 'The development of metaphor comprehension' is under publication with for Language Development Research.

Our researchers

Claire Prendergast – Postdoctoral researcher

Investigating children's nonliteral language processing and comprehension and related factors using a Sequential Study design with Norwegian Speaking preschoolers



I have conducted a longitudinal study across 3 years with 3-5 and 5-7-year-old Norwegian speaking children. Mastery of non-literal language depends on the interplay of cognitive maturation (e.g., abstraction, rule learning), linguistic experience and social-pragmatic skills (e.g., feedback and epistemic trust). The many findings highlighted the complexity of figurative language acquisition and its reliance on multiple developmental cognitive components.

Camilo R. Ronderos – Postdoctoral researcher

Lexical meaning adjustment: processing and development

The social context and Theory of Mind

The processing and development of single and extended metaphors



My research is anchored in the field of Experimental Pragmatics. I make use of experimental methods such as cognitive pupillometry, eye-tracking, mouse-tracking and reaction times measures to test and advance theories on how we use and understand language, as well as how this ability develops with age. As part of the DEVCOM project, I have studied the acquisition and processing of the meaning of adjectives such as 'full' and 'empty', the development and processing of metaphors, as well as how the social context (e.g., whether the person speaking is an adult or a child) influences the derivation of pragmatic inferences.

Rebecca Kvisler Iversen – Postdoctoral researcher

Parodic irony comprehension: The impact of pretend play and perspective-taking skills

Parodic Irony comprehension in neurotypical and autistic children

They are wellies, not shoes: Does children's sensitivity to conventions grow stronger with age?

Sensitivity to sense conventions among autistic and neurotypical children



For the DEVCOM project, my research focused on how children understand social and language conventions, as well as how they begin to grasp parodic irony, a playful and exaggerated form of irony. In one study, we looked at how children aged 3 to 8 respond to social norms or "rules" across different areas like word meanings, categories, object functions, and pretend play. We found that younger children (around age 3) were more open to unusual or unconventional word meanings, while older children (ages 5-8) became increasingly sensitive to what's considered typical or expected. By around the age of 8, their responses were very similar to those of adults.

We also looked at how this awareness develops in children with Autism Spectrum Condition (ASC). This was particularly interesting because ASC is often linked with more rigid thinking styles and challenges with non-literal language use. This raises the possibility that a strong adherence to language rules can account for some of the difficulties with non-literal uses of language. Interestingly, while the overall responses of autistic children weren't significantly different from those of neurotypical children, individual differences such as how flexible a child tends to be, played a role in how they processed unconventional options.

In a separate study, we explored how children understand parodic irony. By age 6, most children could grasp the ironic meaning in the tasks, and those who had been reported to engage more in pretend play tended to perform better. This suggests that imagination and play might help children develop a stronger understanding of non-literal language.

We also examined how autistic children responded to the irony tasks. We didn't see the same age-related improvement in this group. Instead, their performance was more closely linked to their verbal mental age. Unlike the neurotypical group, pretend play didn't seem to be linked to better understanding of irony among the children with ASC.

Together, these studies help us better understand how neurotypical and autistic children develop sensitivity to language and communication cues. They also suggest possible ways we might support children who find these areas more challenging.

Kristen Schroeder – Postdoctoral researcher

Literalist bias and language processing in autism: exploring non-literal language understanding, language variability, and cognitive influences



My research has focused on exploring literalist interpretations of non-literal language (e.g., metonymy and metaphor) among both autistic and neurotypical children. We have used eye-tracking measures to gain insights into real-time processing and picture selection tasks to reveal an individual's final interpretation. Our goal has been to understand whether the literalist bias—typically observed in childhood among neurotypical children and more pervasive across the lifespan in autism—stems from similar or differing sources. This research has been conducted in collaboration with the Language in Neurodiversity Lab at the University of the Basque Country.

A second facet of my research is dedicated to developing a theoretical framework to better understand potential differences in language processing between autistic and neurotypical populations. This work investigates whether variations in language processing mechanisms might account for the observed patterns of strengths and weaknesses across the autism spectrum. Additionally, we explore how these differences in language processing could give rise to diverse "surface" presentations, depending on global cognitive abilities and the methods used to assess language abilities.

Biu Rainey – Ph.D. Fellow

Learning to verb, nouning to learn: selfhood and acquisition at the syntax-pragmatics interface



I'm a PhD candidate researching the ways context affects the grammatical structures we use in our language. I'm working on a theoretical model proposing that a lot of what we think of as 'grammar', or think of as part of a word's innate 'meaning' (e.g., whether it's a noun or a verb) is actually something that arises from 'pragmatics' - interaction during conversations and paying attention to the mental states of others. I'm taking that proposal and looking at what questions it creates for the developing communicator and how she learns to use language creatively. How do kids learn to make verbs from nouns, if they don't actually learn that nouns are nouns in the first place?

Mary Beth Neff – Ph.D. Fellow

Against the Metaphor Deficit: Unpacking Children's 'Literally Biased' Communicative Development



Throughout early childhood, children sometimes go through a 'literal phase.' You may have noticed when talking to children around 4-7 that they become fixated on speaking correctly and often take what people say literally, even when it may not make sense to do so. For example, when driving in an area with penguins, a colleague told the kids she was babysitting to "keep their eyes peeled for penguins," only to turn around and find that the youngest was trying to literally peel their eyes with their hands! My PhD research aimed to understand why children go through this literal phase and how it affects their ability to understand metaphors and other non-literal language.

In the first part of the dissertation, we looked at how 3- to 7-year-olds and adults understand novel metaphors (like "Frosken med paraplyen"/"The frog with the umbrella" or "Treet med armene"/"The tree with the arms"). While children could get the meaning of metaphors when no literal options were given, both children and adults preferred literal meanings. We then examined if children could use context to reject nonsensical literal meanings (like the literal translation of "The tree with the arms"). Children could understand metaphorical meanings in context, and appreciate that a tree with actual arms would be pretty weird, but were still more influenced by literal interpretations than adults. Finally, we explored how 3- to 5-year-olds and adults rated speakers who used literal versus metaphorical speech. Both groups preferred literal, accurate statements, but older children were better at accepting metaphors than younger children. Younger children often protested and corrected metaphorical language, telling the experimenter they were saying things "wrong." Taken together, while children could understand metaphorical statements when prompted, they ultimately treated literal communication as "best."



Overall, our research suggests that children's literal phase is not due to difficulty understanding metaphors but rather a developmental stage where they prioritize clear, accurate communication. This challenges earlier ideas of an early metaphor deficit and encourages a new approach to studying how children develop their communication skills

Line Sjøtun Helganger – Ph.D. Fellow

Children's acquisition of the pragmatics of intonation



My project investigates how preschool children's mastery of intonation as a communicative device develops: Do they use intonation to convey their intended meaning, and are they sensitive to the intonational cues of others?

The findings from our production study showed that already from the age of two children are able to use intonation to signal their attitude (of endorsement or denial) towards an attributed thought. This suggests that young children have the capacity to mentally represent thoughts, to take the perspective of others, and to be attentive to, assess and express their attitude towards the truth-conditional content of utterances.

In our comprehension study, we investigated children's sensitivity to intonational cues when interpreting utterances containing the Norwegian additive focus particle "også" in a postverbal position. These are utterances that signal that either an additional subject or object, dependent on the intonational realization, is to be included in the context. The results showed that children from the age of three years were sensitive to the intonational cues in this ambiguity resolution, suggesting that they are able to use intonational cues to understand the communicative intentions of others

Nicholas E. Allott – Research associate



Nicholas Allott is Senior Lecturer in English language at the University of Oslo. He works on pragmatics – the study of how we communicate – where his interests include the way that word meanings are adjusted in communication (e.g. the meaning of 'cut' in 'cut cake', 'cut grass', 'cut hair') and the distinction between literal and figurative uses of language (e.g. all the previous uses of 'cut' are literal, while 'cut taxes' is metaphorical). As well as contributing research to the project, his role includes providing advice and mentoring to other participants.

Our research assistants

The research assistants have collected data for the different projects in schools and kindergartens, at the Natural History Museum, and in the lab at UiO. Here are the assistants who have worked at the DEVCOM Lab:

Emma Krane Mathisen
Margareta Berg
Iris Stenseth
Ana Boscovic
Amelie Marie Ilje-Lien
Greta Schimanski
Henrik Johansen
John Mikkell Kong Karlsen
Maria Flaate
Marius Beck
María Baglietto
Henrik Torgersen
Selma Mikalsen Kollstrøm
Henriette Johansen
Håkon Bjørn Due
Eline Løvstakken
Tyler Green
Halvor Tyseng
Håkon Atle Jakobsen
Serine Kirkebø Landa

DEVCOM in Numbers

Children tested for our projects:

2600+

Adults tested for our projects:

1500+

Articles published and in preparation:

40

Presentations at conferences and workshops:

44

Number of children had by the researchers during the project:

6

Highlights from the project

SEPTEMBER 2020

The DEVCOM Lab is established, with funding from the ERC and RCN FINNUT.

JANUARY 2021

The DEVCOM kick-off workshop

Lab members present their work and plans for their projects. We have a guest lecture from our project partner Lindy Lab.

JULY 2021

XPrag 2021: The DEVCOM team presents their work at the conference in Turin, Italy.

FEBUARY 2022

The end of the Covid 19 restrictions, allowing us to finally recruit participants for our studies.

MAY 2022

ELM2 2022: Ingrid, Line and Camilo present their work at the conference in Pennsylvania.

SEPTEMBER 2022

XPrag 2022: Members from the DEVCOM Lab present their work at the conference in Pavia, Italy.

DECEMBER 2022

DEVCOM Christmas workshop

We have a workshop with visitors from Université Paris Cité and Università di Genova.

MARCH 2023

Ingrid presents her work at a workshop on polysemy in Oxford.

JUNE 2023

We have a workshop with the Scientific Advisory Board. The DEVCOM team presents projects for important researchers within our field.

JULY 2023

IPra 2023 and CogSci 2023:

Members from the lab present their work at IPra in Brussels and CogSci in Sydney.

SEPTEMBER 2023

XPrag 2023: The DEVCOM team presents their work at the conference in Paris, France.

DECEMBER 2023

DEVCOM Christmas workshop

Lab members present the work they have done this year.

MAY 2024

The DEVCOM Closing Conference

We have a closing conference where all the members of the lab present their work.