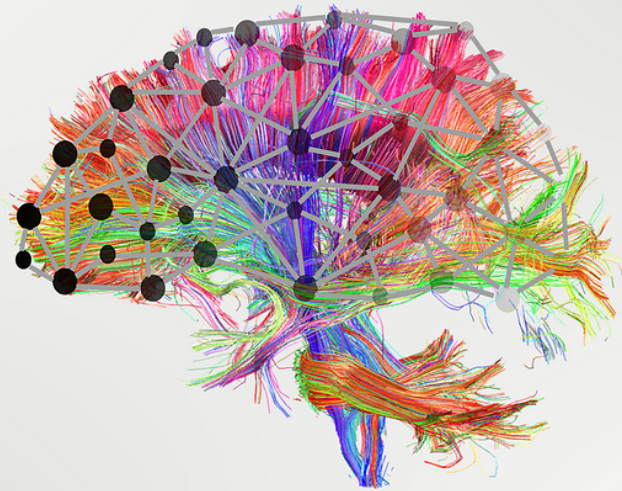
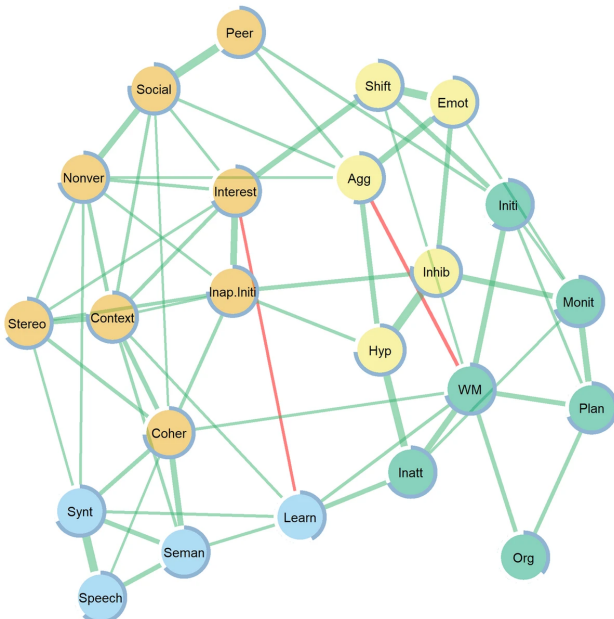




# CENTRE FOR ATTENTION LEARNING AND MEMORY

SPRING 2021

A Newsletter from the CALM clinic located at the University of Cambridge's  
MRC Cognition and Brain Sciences Unit



Mareva, S., the CALM team. & Holmes, J. (2019). Transdiagnostic associations across communication, cognitive, and behavioural problems in a developmentally at-risk population: a network approach. *BMC Pediatrics* 19, 452 (Left).

Siugzdaite, R., Bathelt, J., Holmes, J., & Astle, D. E. (2020). Transdiagnostic brain mapping in developmental disorders. *Current Biology*, 30(7), 1245-1257 (Right).

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We have seen over 1000 children at the Centre for Attention, Learning and Memory (CALM) at the MRC Cognition and Brain Sciences Unit, University of Cambridge.

We are trying to understand why some children struggle at school by working with a large and varied group of children. Most studies about struggling learners focus on children with a single diagnosis, such as Autism, ADHD, or dyslexia. This means children with no diagnoses, or more than one diagnosis, are often not included.

At CALM, we are doing things differently. We asked education and health professionals to refer children whom they thought were struggling at school, regardless of whether they had a diagnosis or not. Some of our participants have a diagnosis, some have more than one diagnosis, however, most have none at all. This means we have been able to find out about children who have mild learning needs, as well as those whose needs are more complex.

# Research Highlights

We have used the information at CALM to ask important questions about the characteristics of children who are struggling at school. Here are some of our key findings:



The cognitive skills supporting learning in children who are struggling at school are similar to those supporting learning in those who are not struggling. Phonological processing, (i.e., the ability hear, remember and produce speech sounds) is closely tied to language learning, and goal-directed skills (e.g., mentally planning and switching between tasks) to maths outcomes.



Children's diagnoses (e.g. ADHD, dyslexia) do not predict their cognitive strengths and weaknesses. Diagnoses do not predict the particular ways in which information travels through the brain (neural characteristics).



Children's behavioural problems do not align with their diagnoses. Children with different diagnoses, or with no diagnosis, can have similar profiles of behavioural and mental health symptoms to one another.



Girls who are referred to the CALM clinic as struggling learners have fewer behavioural challenges than boys, but their cognitive skills are weaker.

Overall, we have shown that children ***with and without*** **diagnosed developmental disorders** of learning can experience the **same cognitive and behavioural difficulties** as one another and have similar neural profiles.

**Children's diagnoses do not map on to underlying difficulties and differences**, which calls for a radical **rethink about how we define developmental disorders** of learning.

To learn more about these exciting findings, please visit  
**<https://calm.mrc-cbu.cam.ac.uk/>**

# Covid Precautions

## SPECIAL ADAPTATIONS TO MAKE TESTING SAFE

We have been working hard to continue our research safely during the COVID-19 pandemic.

Read on to find out about the changes we've made to ensure everyone's safety.

### Booking an appointment:

Only one adult is allowed to accompany each child to CALM. Standard COVID screening questions are asked at the time of booking.

### Arrival:

Upon arrival at Reception everyone must use the handwashing station. Any person aged 11 or over will be asked to put on a face mask that we provide.

COVID screening questions are asked, and temperatures are checked. To keep everyone safe, we cannot proceed with the appointment if anyone presents with suspected symptoms or has a high temperature.

### The assessment:

The CALM building will look somewhat different from the last time you visited because we have removed all unnecessary and communal items to reduce the risk of contamination.

Only one family is allowed into CALM at a time, and the building is cleaned between families. Masks must be worn by families in the waiting room.

Children complete their assessments in a clean room in CALM with a researcher. The room is cleaned between sessions, and all surfaces and objects are disinfected. The room is arranged to allow for social distancing.

Both the researcher and any child over the age of 11 will be asked to wear a visor for the duration of the session. Visors are used so the researcher and child can see each other's faces and understand each other more easily for speech-based tasks.

### Questions:

If you have any questions, feel free to contact us by email ([calm@mrc-cbu.cam.ac.uk](mailto:calm@mrc-cbu.cam.ac.uk)) or phone (01223 769492).



**Interested in  
coming back to  
CALM?**

**We're running a  
follow-up study  
and would like to  
see families 3-5  
years from the  
first time they  
visited CALM.**

**Please get in  
touch for more  
information:  
[calm@mrc-  
cbu.cam.ac.uk](mailto:calm@mrc-cbu.cam.ac.uk)**



# What are families saying about CALM?

*"Taking part in this programme reinforced my argument that my child needed to be taught in a special needs school to enable her to access the school curriculum."*

"The experience has been very helpful in learning about our son's difficulties, learning and social, and how to cope with them as a parent."

**" CALM is a fantastic programme. Results are taken very seriously by both clinicians and educationalists. They are also understandable and insightful for parents."**

"Everything was friendly and relaxing."

**"When we first came, life was difficult. I remember feeling that CALM made me feel not alone and that maybe this experience could help others!"**