SMI
SensoMotoric Instruments

Developmental Psychology & Linguistics

Unobtrusive eye tracking studies of infants and children

- Benefit from customizable infant calibration routines
- Use infant control tools for automated study procedures
- Rely on scientific grade data and free range of motion
- Analyze audio and visual stimuli including videos
- Integrate eye tracking with multimodal co-registration (e.g. EEG)

Prof. Dr. Sonia Frota, Lisbon Baby Lab:

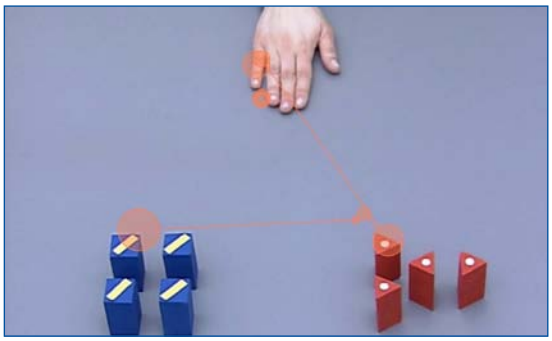
“ ... we have been using the SMI remote eye tracking system at our baby lab and we are quite happy with it. We find it easy to calibrate infants – especially with the customizable routines – and to achieve robust tracking during the course of the experiment. We would certainly recommend the SMI RED ...”

www.smivision.com

Solutions for Developmental Psychology & Linguistics

Unobtrusive eye tracking studies of infants and children

Study cognitive faculties (e.g. preferential looking paradigm) and language acquisition skills (e.g. visual world paradigm) of infants and children with eye tracking solutions by SensoMotoric Instruments (SMI).



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For developmental psychology and linguistics, we offer powerful hardware and software tools designed for eye tracking studies at baby labs and similar institutions.

Remote eye tracking with scientific grade data

Rely on free head movement and scientific grade data quality from the SMI remote eye tracking product line. The SMI RED is available with sampling rates ranging from low-speed to high-speed: 60Hz for recording of visual attention up to 500Hz for measuring oculomotric events such as saccades.

The products can be used with a 22" TFT monitor as well as TV screens and projectors to present captivating stimuli in natural setups.

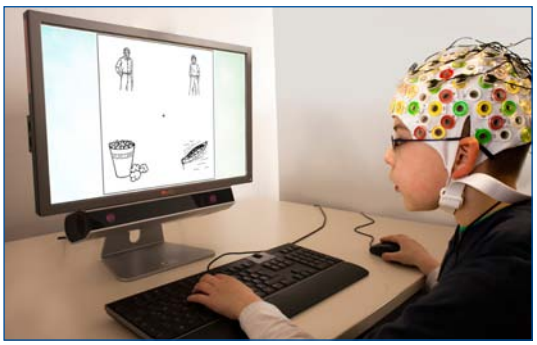
Infant calibration routines and control tools

SMI Experiment Suite™ 360° software makes it straightforward to design an experiment using special customizable infant calibration routines and infant control tools for automated study procedures. Due to its low latency, the SMI RED also support gaze contingent paradigms.

Multimodal co-registration with EEG

The SMI Software Development Kit (SMI SDK) facilitates the integration of the eye tracking data with individual setups including popular stimulus software (e.g. MATLAB, PST E-Prime®, Python, NBS Presentation®) and custom applications written e.g. in C/C++ or .NET.

The kit supports co-registration with other data, such as synchronization with EEG.



Co-registration with EEG data

Analyze audio and visual stimuli including videos

SMI BeGaze™ analysis software is an all in one advanced application that allows for the analysis and structuring of information within experiments and subjects.

SMI BeGaze™ supports audio and visual stimuli, e.g. to analyze eye movements initiated in reaction to spoken language. Within dynamic content such as HD videos, eye tracking data of several viewers can be related to dynamic objects or Areas of Interest (AOIs).

The software creates visualizations of aggregate data like heat maps, focus maps, and bee swarms. SMI BeGaze™ videos and images can easily be exported and added into reports and presentations.

More information on the possibilities to conduct gaze tracking experiments with SMI eye tracking solutions:

www.smivision.com/products

Solutions for Developmental Psychology & Linguistics

SMI RED Remote Eye Tracking

- Sampling rates ranging from 60Hz to 500Hz

SMI Experiment Suite™ 360° Professional

- The comprehensive suite bundles two powerful software tools: SMI Experiment Center™ for study design and SMI BeGaze™ for data analysis and visualization of results.
- Including customizable infant calibration routines and infant control tools

Extensions for SMI Experiment Suite™ 360°

- **Observation Package** - Record verbal and facial expressions of participants
- **Video Analysis Package** - Study movie clips with dynamic Areas of Interest (AOIs)

SMI Software Development Kit (SDK)

- SMI Software Development Kit with extensive documentation and sample code

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