

*As part of an on-going collaboration between the Institute of Psychology and LIACS, we are looking for an excellent student interested in applying (and possibly developing) state-of-the-art machine learning and data mining techniques to the complex data (e.g., heart rate and skin conductance) that was gathered as part of a study on social anxiety.*

### **Social Anxiety, Public Speaking Anxiety and Stress Responses Before and During a Speech**

This project is part of a comprehensive longitudinal study on Social Anxiety and Normal Development (SAND) in adolescence. Social anxiety can be considered as “fear or anxiety about one or more social situations in which the individual is exposed to possible scrutiny by others” (APA, 2013, p. 203). Among socially anxious adolescents, public speaking is the situation that is most commonly feared (Essau, Conradt, & Petermann, 1999). People’s levels of social (and public speaking) anxiety vary on a continuum (Rapee & Spence, 2004). It has often been hypothesized that individuals with high levels of social anxiety show elevated physiological responses to public speaking. However, support for this hypothesis has not consistently been found (see e.g. Mauss, Wilhelm, & Gross, 2004, for an overview). Some studies have suggested that differences occur before rather than during public speaking (e.g. Cornwell, Johnson, Berardi, & Grillon, 2006). Other studies have suggested that stress responses are elevated only in people with a specific fear of public speaking (Hofmann, Newman, Ehlers, & Roth, 1995; Levin et al., 1993). We are currently investigating the (differential) effects of social anxiety and public speaking anxiety on the detailed time-course of heart rate and skin conductance during the Leiden Public Speaking Task (Westenberg et al., 2009). The relation between physiological responses and time may take different forms, depending on the levels of social anxiety and public speaking anxiety. The current project aims to explore these possible relations.

<http://www.adolescentdevelopment-leidenuniversity.nl/index.php>

For more information, please contact the project supervisors:

- Dr. Esther van den Bos (Institute of Psychology), [bosejvanden@fsw.leidenuniv.nl](mailto:bosejvanden@fsw.leidenuniv.nl)
- Dr. Matthijs van Leeuwen (LIACS), [m.van.leeuwen@liacs.leidenuniv.nl](mailto:m.van.leeuwen@liacs.leidenuniv.nl)