

# Interference of mobile phones with electrophysiology and emotions

Citation for published version (APA):

Roggeveen, S. (2018). *Interference of mobile phones with electrophysiology and emotions: results from short-term experimental studies*. [Doctoral Thesis, Maastricht University]. Maastricht University. <https://doi.org/10.26481/dis.20180302sr>

## Document status and date:

Published: 01/01/2018

## DOI:

[10.26481/dis.20180302sr](https://doi.org/10.26481/dis.20180302sr)

## Document Version:

Publisher's PDF, also known as Version of record

## Please check the document version of this publication:

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## VALORIZATION

The target audience of this thesis is the (potential) mobile phone using community. The societal relevance of this thesis, exploring health effects associated with mobile phone use, is therefore potentially large. The outcomes add knowledge to how mobile phones and the electrophysiology and emotions of human beings interact in the short term. It helps to build a more stable basis of knowledge about this interaction. This thesis explicitly did not aim to investigate whether mobile phone usage is harmful to human health. Ultimately, that would be the goal of mobile phone research but in order to investigate health consequences long term explorative research is required.

There are no specific products or activities in which the outcomes of this thesis are being used. There were product developers of for example radiation shield materials who contacted us to prove the effects of their material, however at this stage of research these issues were not relevant.

What can be called innovative is to have treated a 3G radiation peak as an 'event', to investigate directly the electrical cerebral response following a radiation peak. Further, statistical methods like multilevel regression analyses were used only very rarely in electrophysiological research. Finally, experience sampling technology has not been used before to investigate mobile phone use.

At the moment of publication of this thesis, the ESM article was under review and it is expected to be published soon. Especially this part of the research deserves a continuation, since it only has been piloted so far with two test subjects. It would be relevant to use more variables like GPS information, add pre and post questionnaires about for example depression and test the subject's personality traits. It has been proposed in the literature that mobile phone usage can become more or less problematic, depending on certain personality traits.

Today, mobile phones are being used very frequent and at an increasingly younger age. So far there is not much knowledge about the influence of mobile phones in the development of children. Therefore it is important to gain more knowledge on the effects of mobile phones on children. We therefore think it is instructive to also set up long term research including children.