

**Visual Story: Smartphones as a double-edged sword in work life**

Lars Grüter

grueterl@googlemail.com



Original paper: Beginning the workday yet already depleted? Consequences of late-night smartphone use and sleep

Reference for the original paper: Lanaj, K., Johnson, R. E., & Barnes, C. M. (2014). Beginning the workday yet already depleted? Consequences of late-night smartphone use and sleep. *Organizational Behavior and Human Decision Processes*, 124(1), 11–23.

Link to original paper online: <http://dx.doi.org/10.1016/j.obhdp.2014.01.001>

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Tilburg University, Department of Communication and Cognition

Instructor: Neil Cohn, [neilcohn@visuallanguagelab.com](mailto:neilcohn@visuallanguagelab.com), [www.visuallanguagelab.com](http://www.visuallanguagelab.com)

# Research

RQ: Are the benefits of smartphone use for work offset by the disadvantages in sleep quality?

## Hypotheses



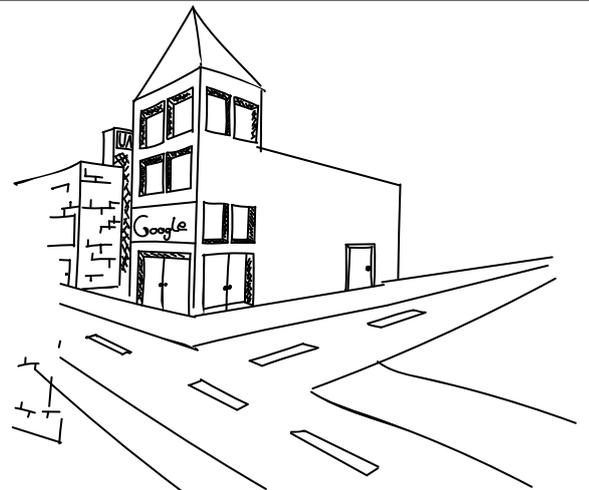
H1: Late night smartphone use will be positively related to low sleep quantity.

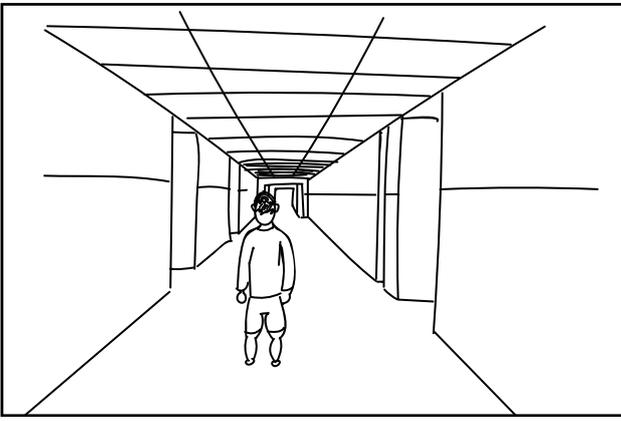


H2: Sleep quantity will be negatively related to morning depletion.



H3: Sleep quantity will mediate the effect of late night smartphone use with morning depletion.





H4: Morning depletion will be negatively related to daily work engagement.

H5: Sleep quantity and depletion will mediate the effect of late-night smartphone use on daily work engagement.



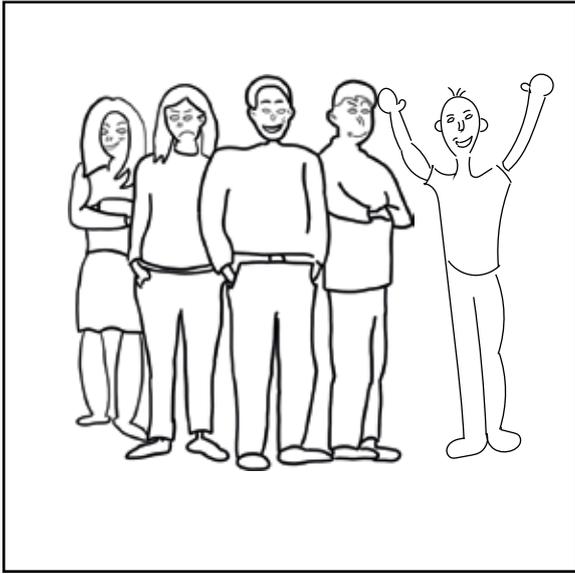
H6: Job control will moderate the negative relation of morning depletion with daily work engagement, such that the relationship is weaker when job control is high vs. low.

In order to measure these hypotheses the researchers conducted two studies.

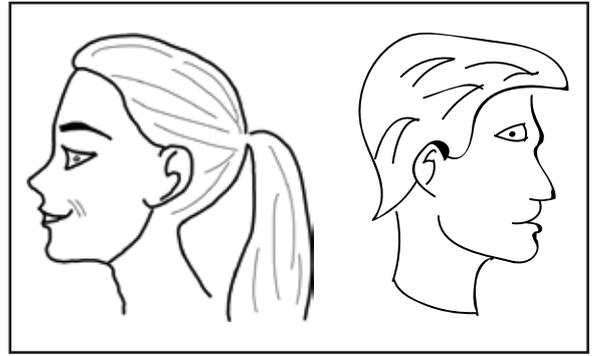


# Study 1

## Participants

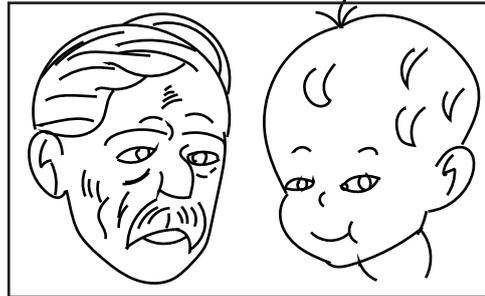


82 mid- to high-level managers



17 women

65 men



48% 31 - 40

34% 20 - 30

18% 41 - 50

### Age

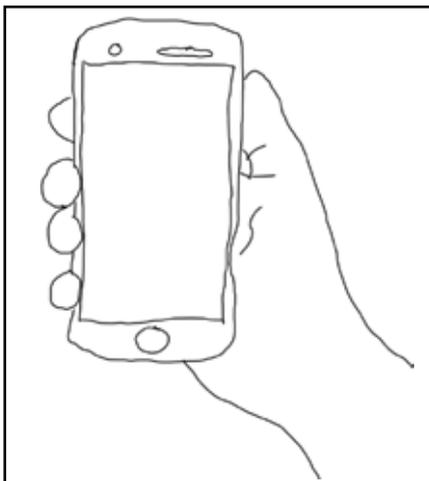
## Measures



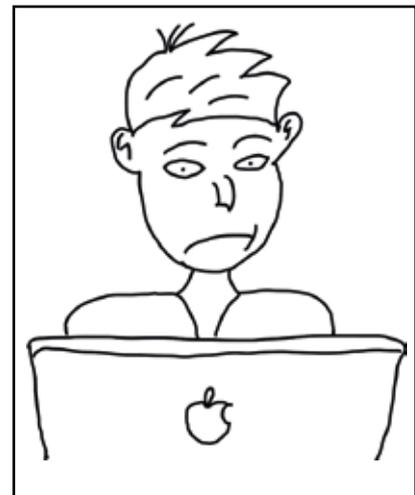
Sleep Quantity



Morning Depletion



Smartphone Use

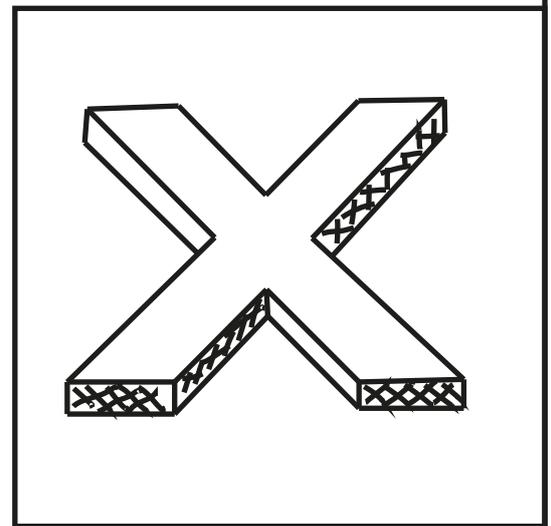
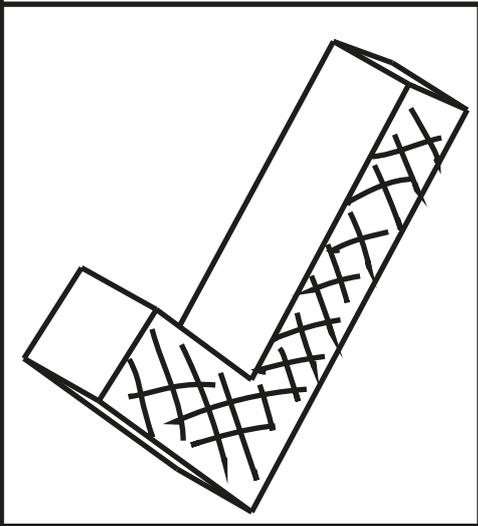
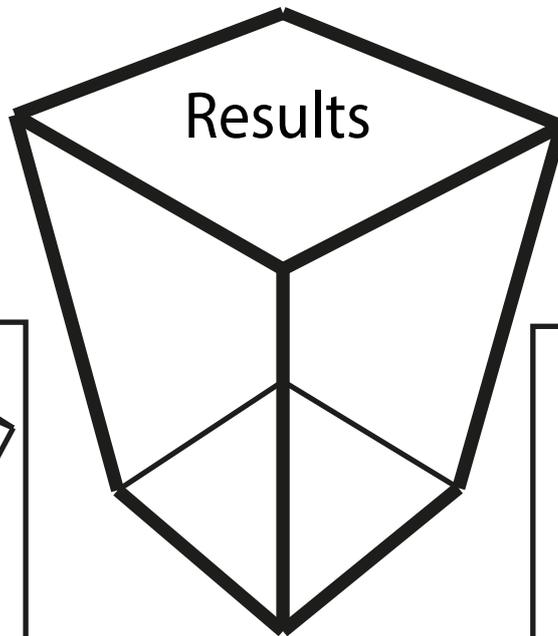


Work Engagement

# Study 2



For this second study 161 employees were surveyed for ten days.

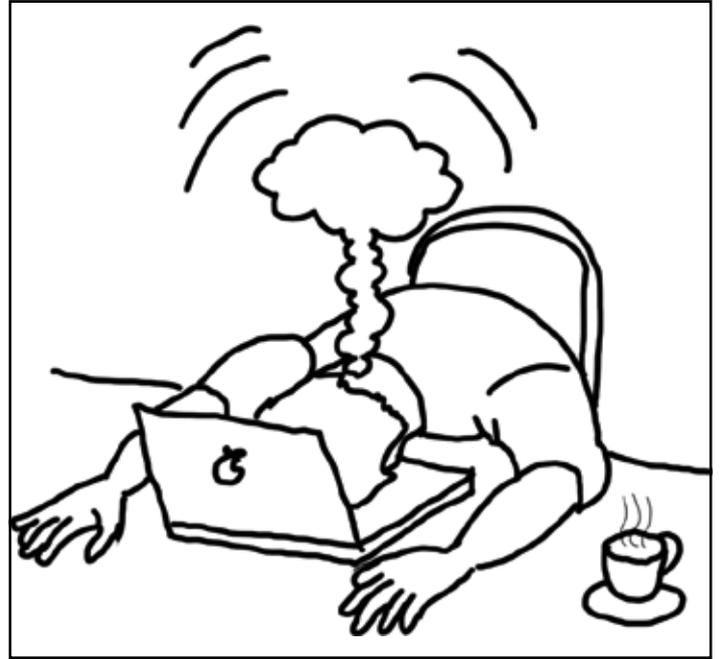
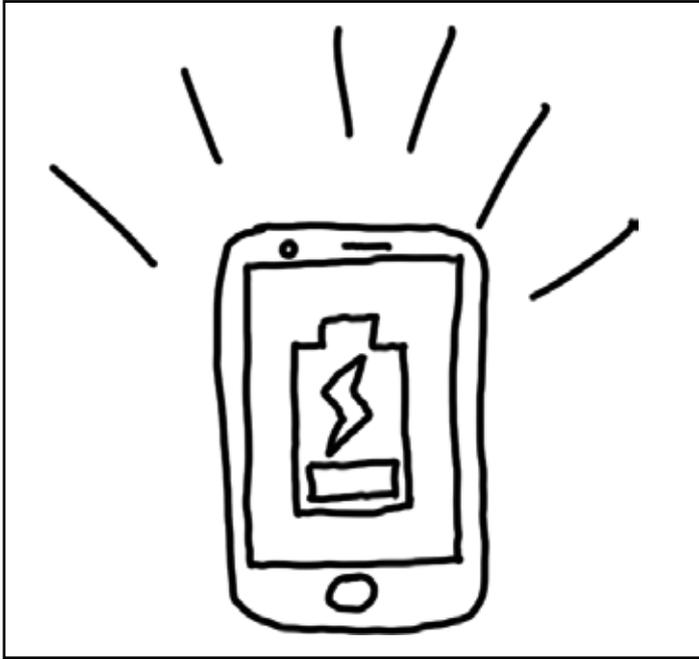


The two conducted studies were able to support the hypotheses 1 - 5.

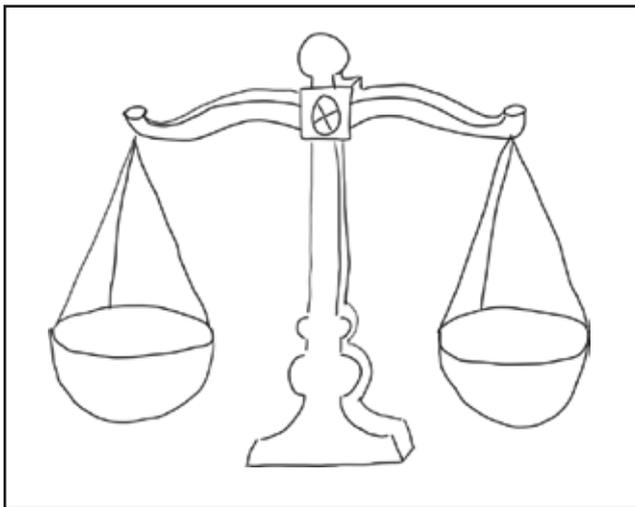
For hypothesis six the results indicated that morning depletion is only related to work engagement in low job control conditions.

# Implications

Employees are using their smartphones more and more outside their work hours. This may increase their overall work performance, but does this behavior have any other downsides?



The increased use of their smartphone leads to less recovery activities and results in a decrease in sleep quality and quantity.



Smartphone use is a double-edged sword.

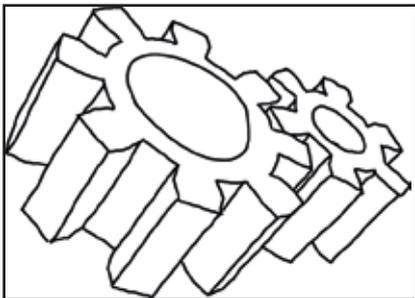
Do the costs that are associated with smartphone use for work outweigh the gains in productivity related to this smartphone use?

## Limitations



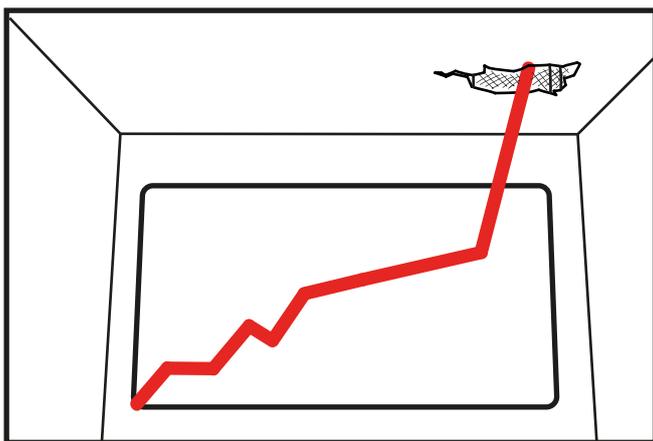
Some relations have been biased because only self-reports were used.

Late night technology use was defined as the time participants used mobile devices after 9 pm.



The underlying mechanisms for the “effects of smartphone usage on depletion and engagement” (Lanaj et al., 2014) should be investigated further.

## Conclusion



Smartphones are becoming increasingly popular.

However, they should be handled with care because it may harm employee`s sleep and their work performance.

