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# Towards needs-based work environments

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## Towards needs-based work environments

Psychological needs affecting the use and appreciation of activity-based work environments

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Activity-Based Working (ABW) is supported by work environments that combine hot-desking with a variety of workplaces, designed to support different types of activities. While the advantages of these work environments in terms of efficiency are undisputed, their effectiveness with respect to job performance and satisfaction is still doubtful, at least as a one-size-fits-all solution. So far research has produced ambiguous and sometimes contradictory findings, indicating that situational factors (e.g. interior design, organisational culture, implementation process) may play an important role. Such factors cannot explain however, why we see major differences between individual users. Hence, the purpose of this research is to analyse individual differences in psychological needs and their effects on behavioural patterns and workplace satisfaction. Since workplace satisfaction has been found to be related to job satisfaction and job performance, we consider it as an indicator for the effectiveness of an ABW environment.

Repeated measurements were collected, using a mobile application. Participants reported their activities, the types of workplaces they used, and the degree of workplace satisfaction they experienced. They also filled out a questionnaire regarding (among others) their psychological characteristics: need for autonomy, need for structure, need for relatedness, need for privacy and need for competence. Data have been collected at four different organisations, resulting a total of 7457 measurements, reported by 214 participants. These data have been analysed using a logistic regression model.

Data analysis is still in progress; complete results will be available at the USE conference. Preliminary findings indicate significant impact of several psychological needs on the use and appreciation of activity-based workplaces. As expected, people high in need for structure appear to switch less often between different types of workplaces, whereas people high in need for autonomy appear to switch more often. When activities that require a high level of concentration are carried out in open work environments, a high need for privacy seems to predict workplace dissatisfaction, whereas a high need for relatedness seems to predict less negative satisfaction ratings.

Our preliminary findings clearly confirm the general idea that individual differences regarding psychological needs influence both behavioural patterns (choosing and switching between different types of workplaces) and workplace satisfaction. Further analysis of the dataset is needed to deepen and broaden the insights and to reveal the predictive value of these psychological needs regarding the use and appreciation of activity-based workplaces, also in comparison with other factors like activity type and job characteristics.

The aforementioned insights are highly relevant for both researchers and practitioners. The selected set of psychological needs seems to provide a useful framework for future research focusing on individual differences within the broader context of changing work styles and work environments. Such research may contribute to the development of evidence-based workplace theories and concepts that take into account the variety of psychological needs that have to be fulfilled in order to achieve goals regarding job performance and satisfaction. At a more basic level, research that demonstrates the importance of individual (psychological) differences regarding workplace needs may increase awareness within organisations and among users, stimulating them to pay more attention to assessing, discussing and facilitating these differences.

# Agenda

- Research context; activity-based work environments
- Individual differences within New Ways of Working
- Data collection and preliminary findings
- Implications for research and practice

# The psychology of activity-based working

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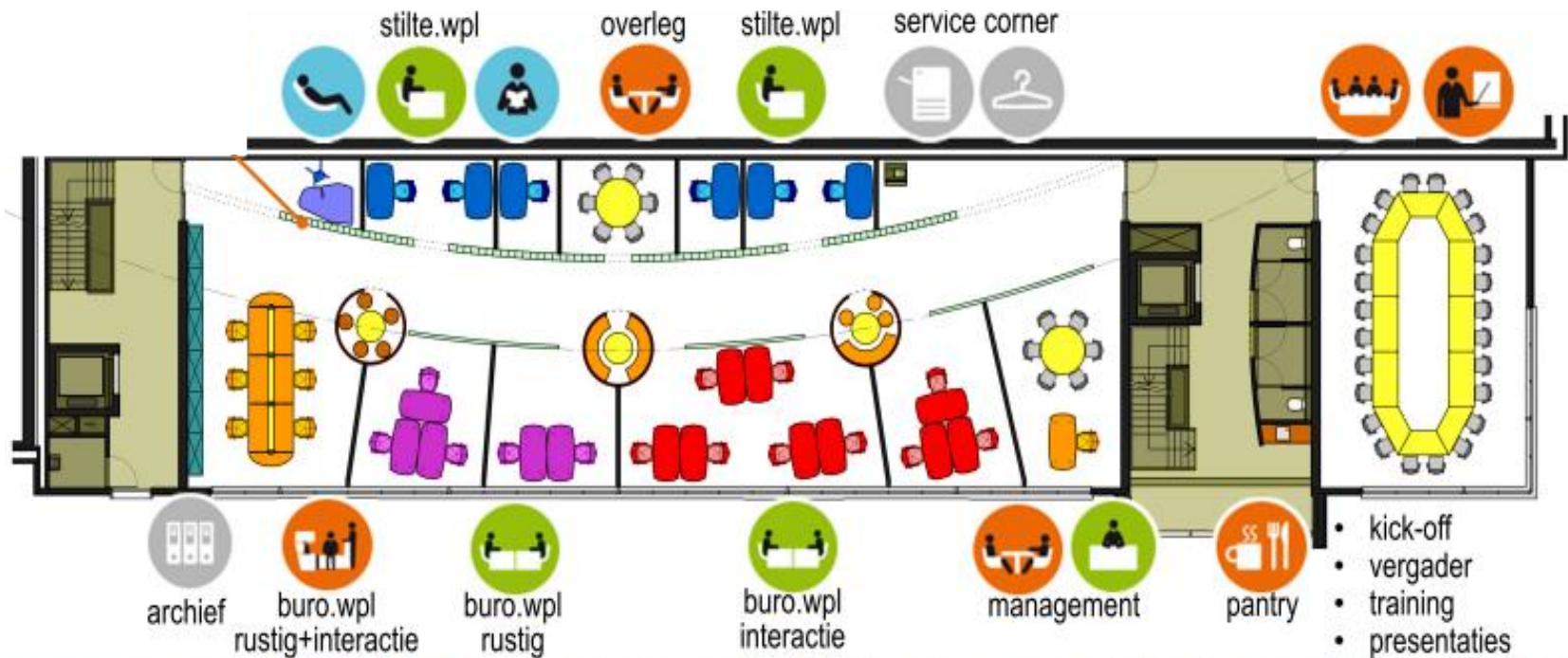
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# Activity-based work environment



(Erick Wuestman, [www.erick.nl](http://www.erick.nl))

## Why are ABW environments popular?



*Efficiency:* less workplaces are needed if these are shared, because more work is done at home and at third places.



*Effectiveness:* different types of workplaces are needed to facilitate the diversity of tasks that are carried out.



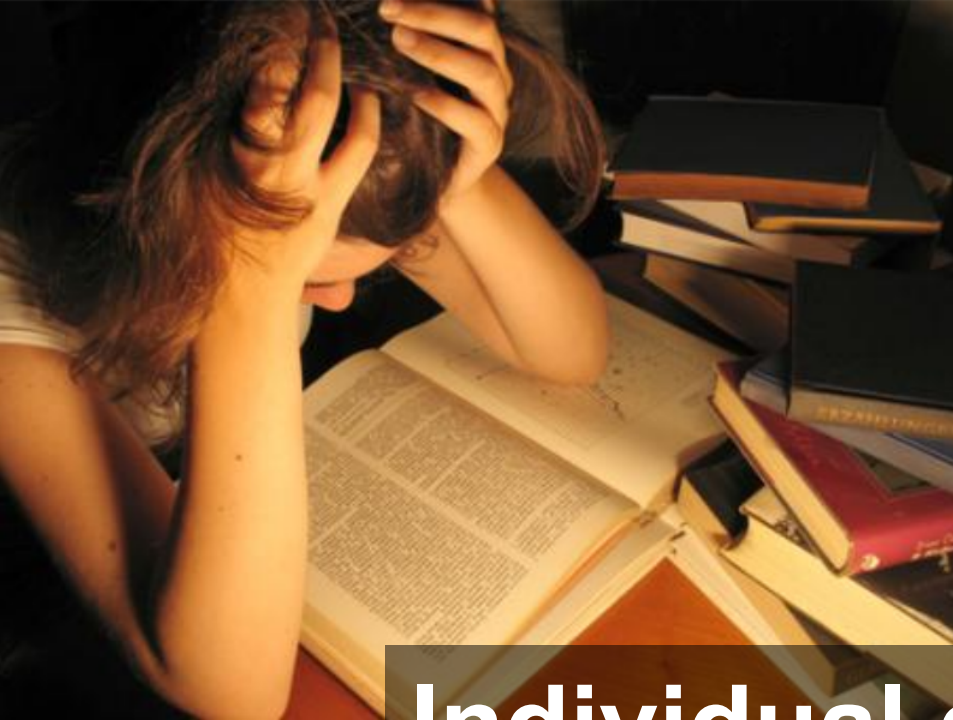
## Focus of the PhD project

Within ABW environments, people seem to frequently carry out activities at places that are not suitable for these activities, which may harm their performance and satisfaction.

→ *How can behaviour be better aligned to the environment?*

→ *How can workspace design be better aligned to needs and behaviour?*



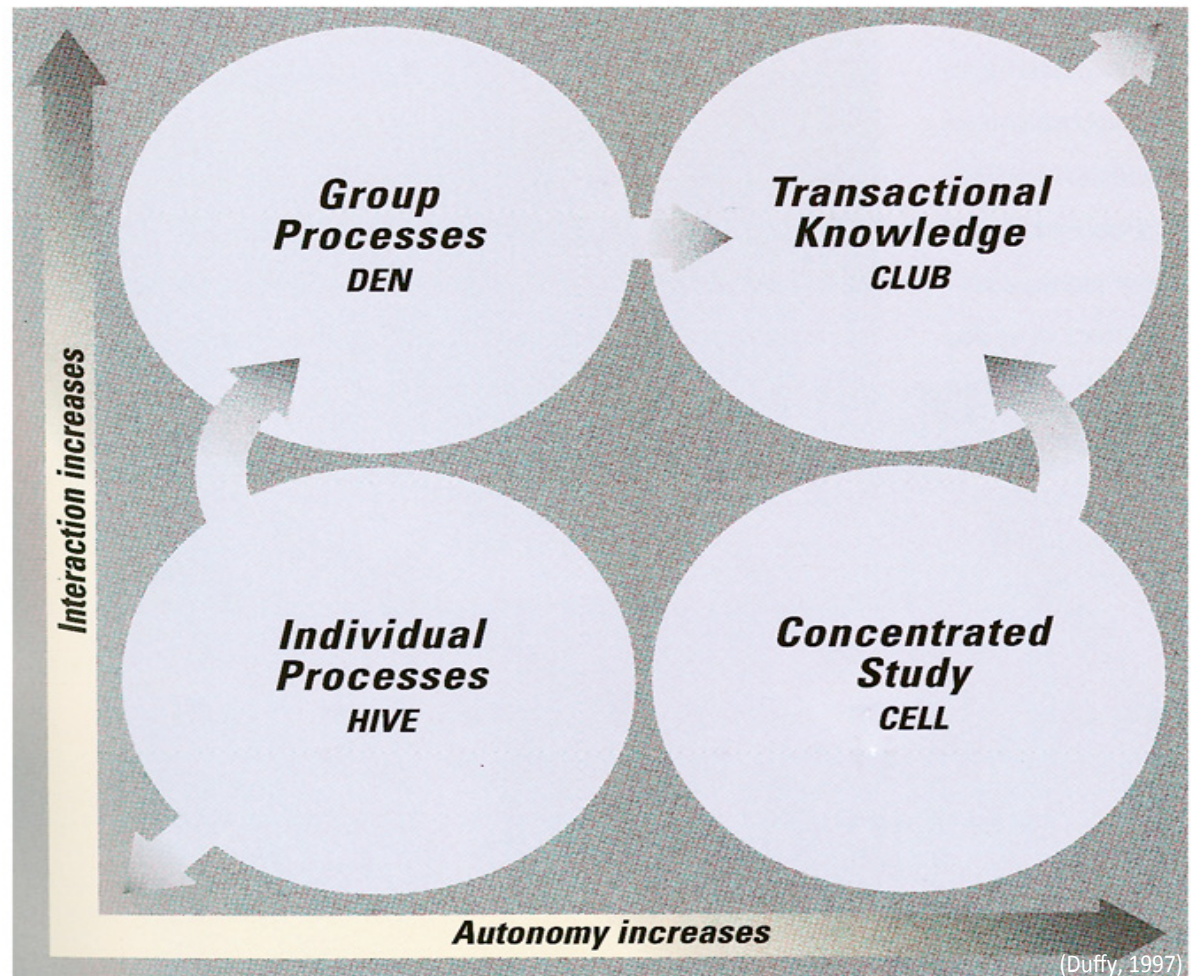


# Individual differences



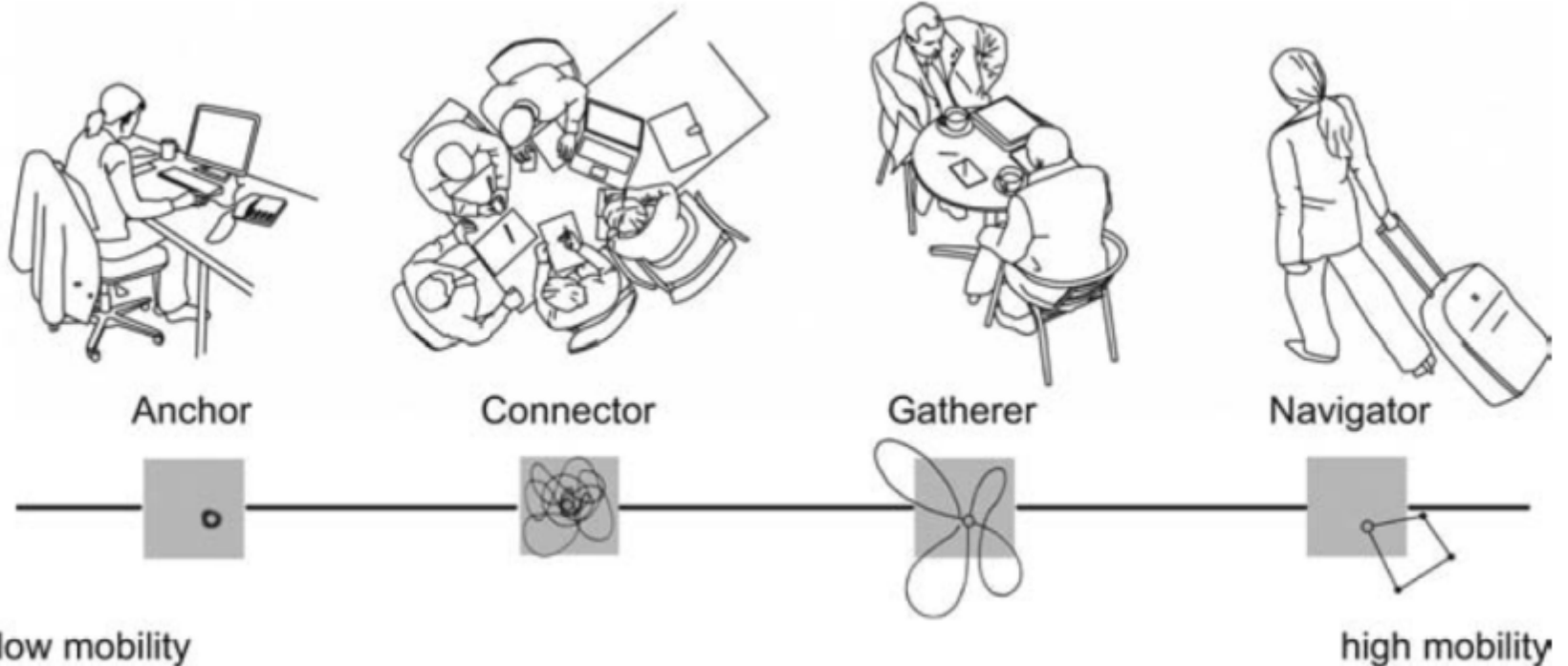
# Different types of work processes

(Duffy, 1997)



# Different types of knowledge workers

(Greene & Myerson, 2011)



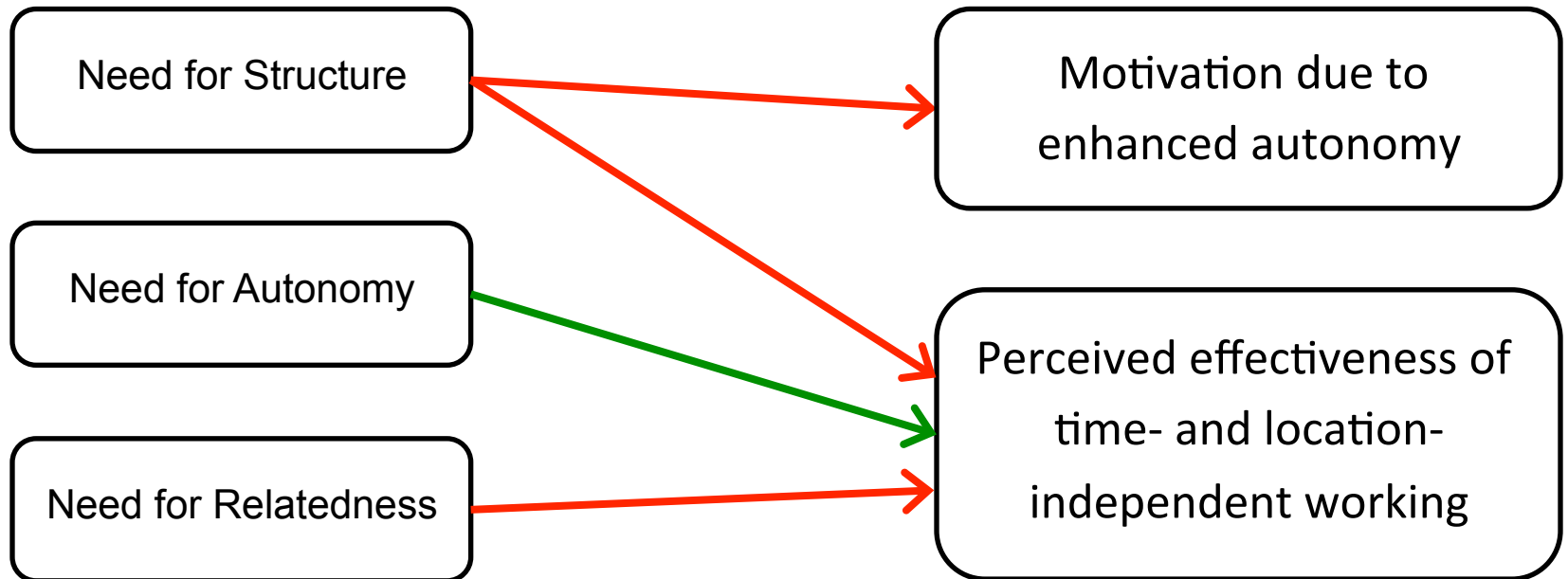
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## Different personality types

- Different 'Big 5' personality types prefer different settings for different types of interaction (Oseland, 2013)
- Individual values are related to attitudes and behaviour concerning activity-based working (Van der Kleij *et al.*, 2015).
- Introverts suffer more from noise distractions in open plan offices than extraverts (Compernelle, 2014).

## Different psychological needs

(Slijkhuis, 2012; Van Yperen *et al.*, 2014)



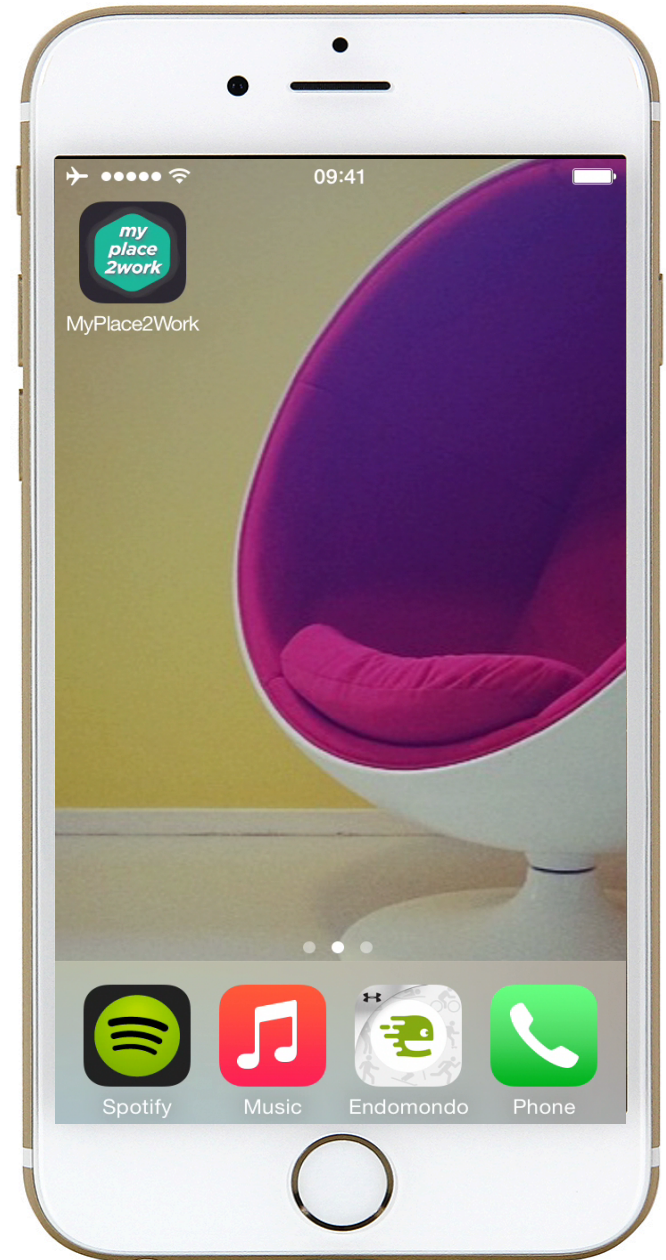
# Data collection

1. Online questionnaire & registration
2. Smartphone app
3. Individual feedback

*I can perform this activity at this workplace to my full content*

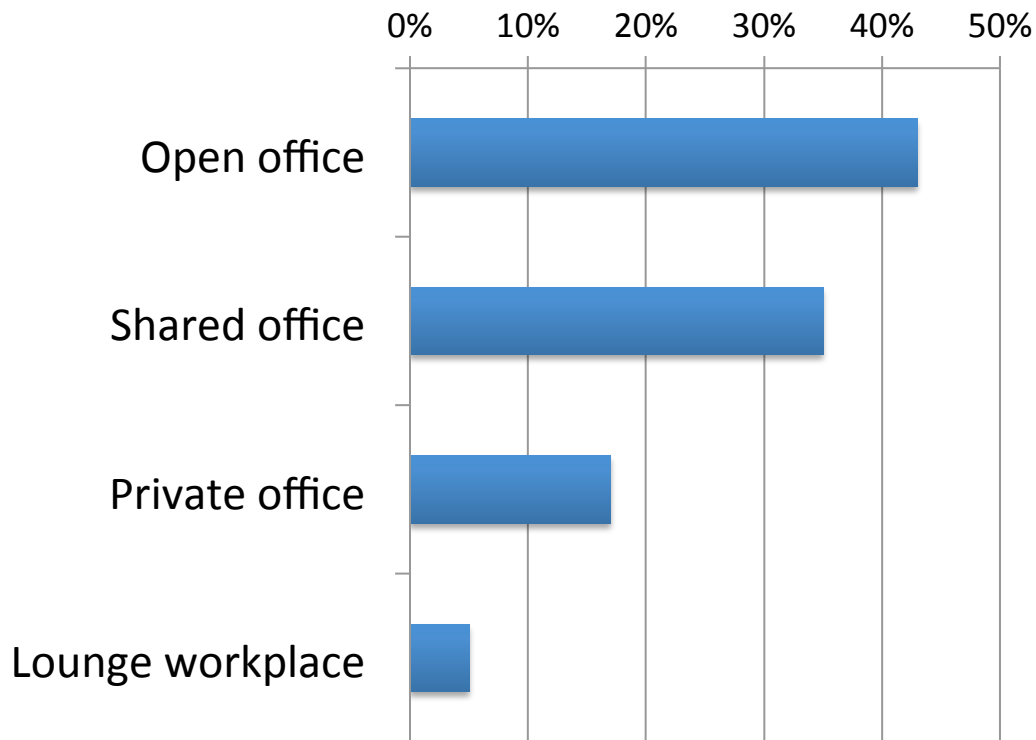
(activity type × workplace type)

	Workstation in an open workspace	Workstation in a semi-enclosed workspace	Workstation in a shared office	Workstation in a private office	Meeting room	Company restaurant or coffee corner	Lounge workstation	Touchdown workstation
Individual work that requires high concentration	-2,0	-	1,0	2,0	-	-1,5	-	-
Individual work that requires low concentration	0,5	2,0	-	-	-	-	1,6	-
Planned face-to-face communication	-	-	-	-	1,2	0,8	-	-
Non-planned face-to-face communication	-0,6	-	-1,0	1,8	-	1,8	-	-
Communication through phone or videoconference	-1,5	-	-	1,0	-	-	2,0	-1,0
Break	-	-	-	-	-	1,5	-	-

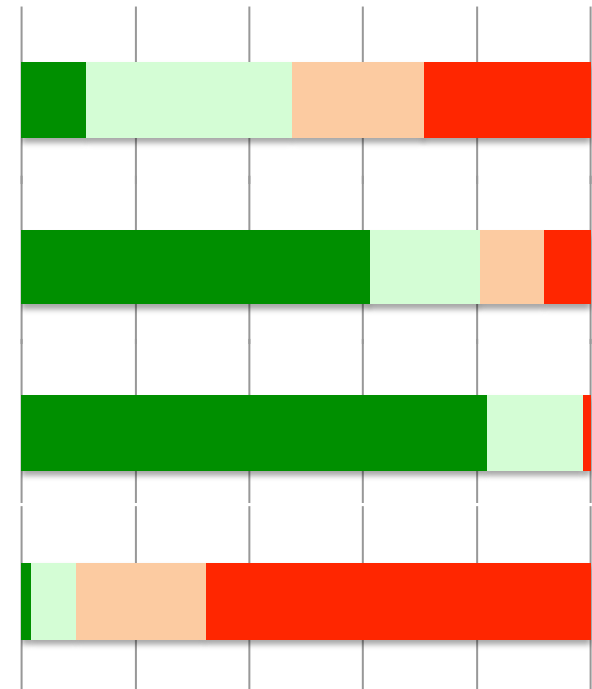


# Preliminary results

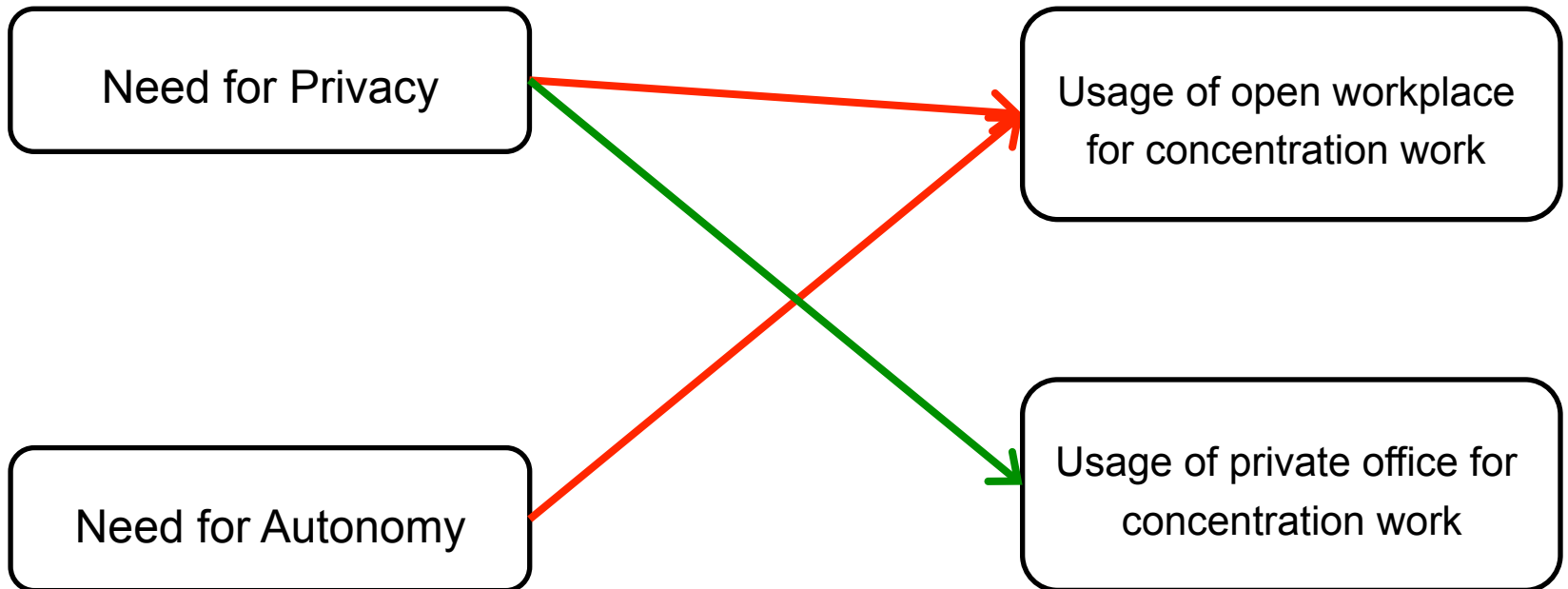
## Workplaces used for concentrated work



## Workplace satisfaction

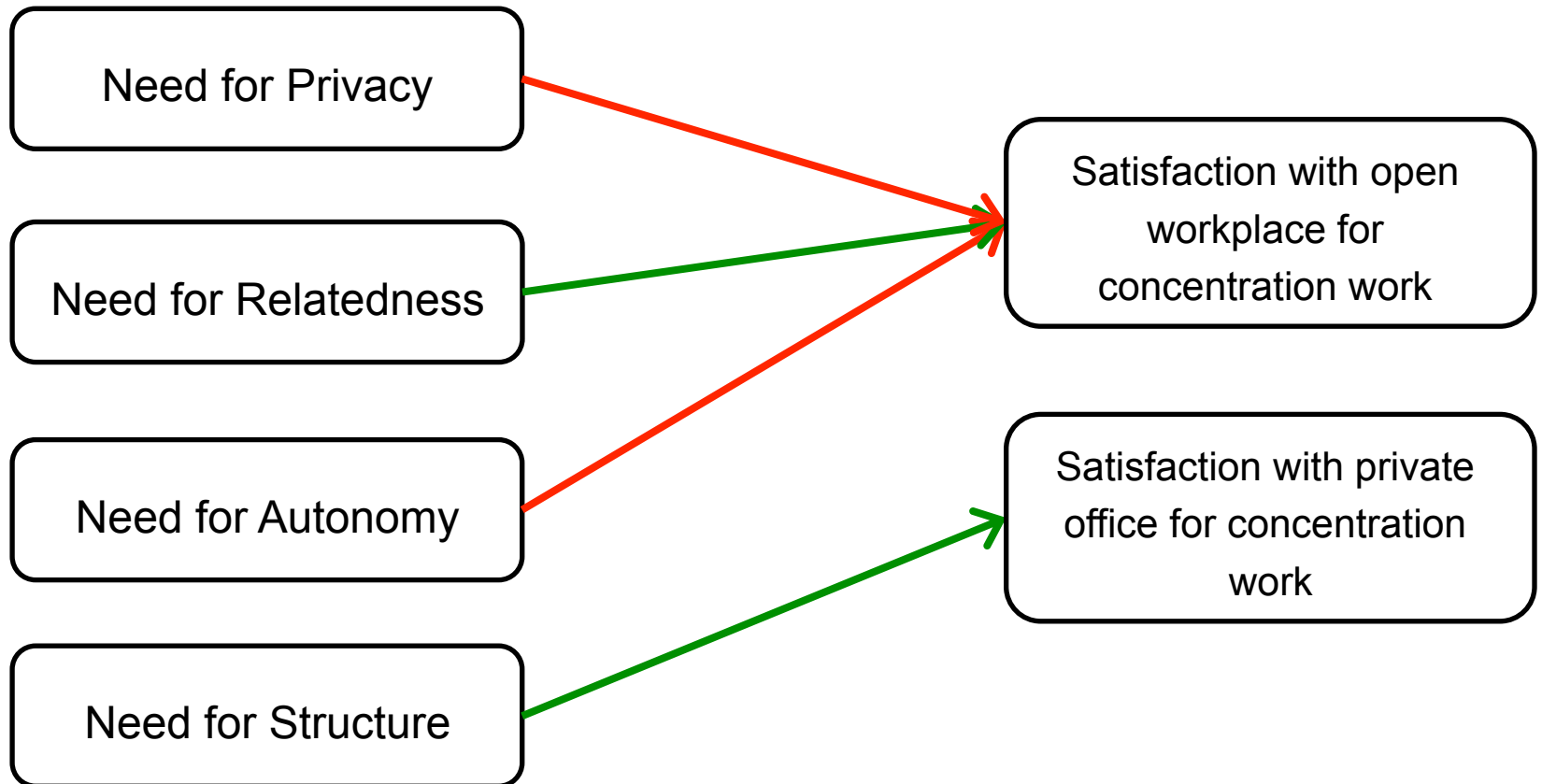


## Preliminary results

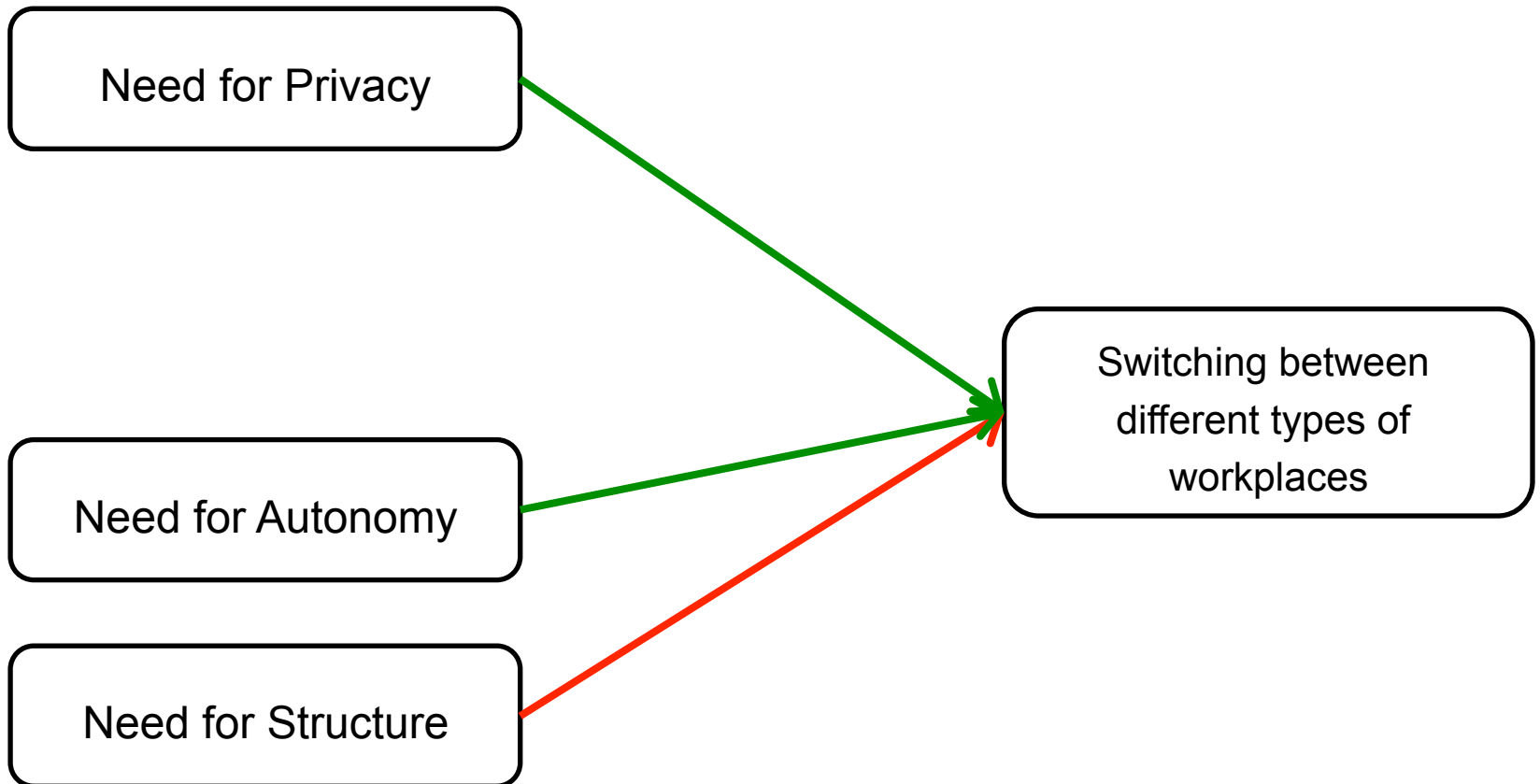




## Preliminary results



## Preliminary results



## Implications for research and practice

- Place does not – and should not – simply follow activity, since individual needs differ significantly.
- Need for workplace theory and concepts that take into account the variety of psychological needs that have to be fulfilled
- Awareness among workers and their managers regarding psychological needs and individual differences should increase.



**Let's move from  
activity-based  
towards  
needs-based  
work environments**

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