

Habits as barriers to the adoption of new energy efficient behaviors - Implications for intervention

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Sustainable energy use is an important step to meet international climate protection targets. In Germany approximately one quarter of the annual primary energy demand and 12 % of the total CO₂-emissions originate from the tertiary sector including public services (Statistisches Bundesamt 2009), and there is now increasing recognition that the behaviour of individuals has the potential to significantly reduce energy consumption in these buildings with estimated potential savings up to 20 %. At the same time knowledge on how to tap this potential is not well developed. In their review of 38 psychological intervention studies into everyday energy consumption Abrahamse and colleagues (Abrahamse et al. 2005) report that information only strategies (strategies that are most frequently applied e.g. in universities to encourage energy efficient user behavior) are not sufficient to effect behavior change. One line of argument to explain these findings takes into account that good intentions may be blocked by bad habits. According to Ouellette and Wood (1998) behavior becomes habitual (which means that it is carried out automatically, overruling deliberate decisions) when it is repeated very often under the same circumstances. This is true for most of the energy relevant behaviors at the work place (e.g. manual ventilation, use of computer). Against this background it can be assumed that intervention techniques which enhance attention and salience of motives are more effective to break up habitualized energy relevant behaviors than traditional information techniques. To test this assumption a field experiment was carried

out. Data from staff members in 15 buildings at four German universities were collected in winter 2008/2009 (N = 913) using a quasi-experimental pre-post design with control group. Habitualization of three repetitive behaviors (manual ventilation, shutting off computers, shutting off lights) was measured by an adjusted version of SRHI measure (Verplanken & Orbell, 2003). Two variations of interventions were applied to selected groups/buildings: A standard intervention package including informational strategies, and a habit intervention package including prompts, commitment, a feedback tool, and change of situation. Results of a MANOVA indicate that only the habit intervention package effected changes in habitualization. Findings are contextualized with consumption and behavior observation data (only available on the level of buildings). Implications for the further development of interventions are discussed.

References

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