The influence of self-quantification on individuals' power perceptions

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During the last decade the number of consumers tracking their body parameters and behaviours has seen a steep increase. The main motive of so-called QSelfers is to eventually increase subjective wellbeing or personal efficiency. Self-quantification enables consumers to reflect on their behaviour, make self-discoveries, and identify self-benefitting possibilities for change (Choe et al. 2014). Research to date suggests that self-quantification assists reflective learning and is capable of empowering users to achieve their goals (Choe et al. 2014; Mantwill et al. 2015; Rivera-Pelayo et al. 2012; Tengland 2012).

We know little about what else self-quantification may do with those embracing the practice. Building on the main benefit thought by adopting self-quantification, we suggest that it may have far reaching effects. Self-quantification empowers because it helps to have control over the determinants of users' quality of life (Pratto 2015; Prince 2014; Tengland 2012). Given that it tends to be a habit, it potentially yields these outcomes on a regular basis. Consequently, it seems possible that QSelfers eventually come to feel more powerful in general.

For human beings, power is of great importance. Power is among the fundamental needs of our species (e.g., Maslow 1943). Its experience characterizes (e.g., Hofstede 1983) and affects us in both beneficial and harmful ways. It affects those experiencing it but also all those interacting with them. Being powerful is, for example, capable of influencing the quality and length of people's lives, but also how communities function (Pratto 2015). Any possible effect of self-quantification on power perceptions could have far-reaching consequences. The diffusion of self-quantification might go as far as to influence consumer behaviour patterns (Galinsky et al. 2008; Rucker et al. 2011), social interactions (Galinsky et al. 2006) and dynamics in the professional world (Osborn 1953; Smith et al. 2008).

To explore whether we are likely to see any of these potential consequences, we investigate (a) whether an effect of self-quantification on power perceptions exists, (b) if so, which aspects of the varied facets of power (Lammers et al. 2016) are concerned specifically, and (c) whether the exact mechanism of self-quantification (automatic versus manual) makes a difference.

To tackle these questions, we are about to run a longitudinal field experiment in which we compare outcomes of automatic self-quantification (a mobile app tracking sleeping pattern), to manual self-quantification (a sleep diary), and to a control group (daily cognitive tasks). Participants will be randomly assigned to these groups. They will report on beneficial and harmful facets of power and related-experiences, such as autonomy (Lammers et al. 2016) and sense of control (Fast et al. 2009), before and after they use the respective tool for eight consecutive days. We expect that participants feel more powerful after tracking their own behaviour and interacting with their "own" data. A test of this proposition provides much needed information on whether self-tracking benefits consumers or whether there are grounds for intervention to protect QSelfers and society from its extended use.