

## How to form a habit

This has nothing to do with nuns' clothing. Habits are those behaviours that have become automatic, triggered by a cue in the environment rather than by conscious will. Health psychologists are interested for obvious reasons - they want to assist people in breaking unhealthy habits, while helping them adopt healthy ones. Remarkably, although there are plenty of habit-formation theories, before now, no-one had actually studied habits systematically as they are formed.

Phillippa Lally and her team recruited 96 undergrads (mean age 27) and asked them to adopt a new health-related behaviour, to be repeated once a day for the next 84 days. The new behaviour had to be linked to a daily cue. Examples chosen by the participants included going for a 15 minute run before dinner; eating a piece of fruit with lunch; and doing 50 sit-ups after morning coffee. The participants also logged onto a website each day, to report whether they'd performed the behaviour on the previous day, and to fill out a self-report measure of the behaviour's automaticity. Example items included 'I do it automatically', 'I do it without thinking' and 'I'd find it hard not to do'.

Of the 82 participants who saw the study through to the end, the most common pattern of habit formation was for early repetitions of the chosen behaviour to produce the largest increases in its automaticity. Over time, further increases in automaticity dwindled until a plateau was reached beyond which extra repetitions made no difference to the automaticity achieved.

The average time to reach maximum automaticity was 66 days, although this varied greatly between participants from 18 days to a predicted 254 days (assuming the still rising rate of change in automaticity at the study end were to be continued beyond the study's 84 days). This is much longer than most previous estimates of the time taken to acquire a new habit - for example a 1988 book claimed a behaviour is habitual once it's been performed at least twice a month, at least ten times. In fact, even after 84 days, about half of the current study participants had failed to achieve a high enough automaticity score for their new behaviour to be considered a habit.

Unsurprisingly perhaps, more complex behaviours were found to take longer to become habits. Participants who'd chosen an exercise behaviour took about one and a half times as long to reach their automaticity plateau compared with the participants who adopted new eating or drinking behaviours.

What about the effect of having a day off from the behaviour? Writing in 1890, William James said that a behaviour must be repeated without omission for it to become a habit. The new results found that a single missed day had little impact on later automaticity gains, either early in the study or later on, suggesting James may have overestimated the effect of a missed repetition. However, there was

some evidence that too many missed repeats of the behaviour, even if spread out over time, had a cumulative effect, reducing the maximum automaticity level that was ultimately reached.

It seems the message of this research for those seeking to establish a new habit is to repeat the behaviour every day if you can, but don't worry excessively if you miss a day or two. Also be prepared for the long haul - remember the average time to reach peak automaticity was 66 days.

This research has a serious shortcoming, acknowledged by the researchers, which is that it depended entirely on participants' ability to report the automaticity of their own behaviour. Also, the amount of data made it hard to form clear conclusions about the need for consistency in building a habit. However, the study provides an exciting new approach for exploring habit formation and future research could easily remedy these shortcomings.