Report

Establishing a research agenda on habit: a reflection on the SYNERGY expert meeting 2019

Daniel Brown

The focus on researching habit has come in and out of vogue for decades. Definitions of habitual-

like processes can be seen as far back as Aristotle, however, have been formalised in the psychological and behavioural sciences since the 19th century (Barandiaran & Di Paolo, 2014; James, 1891; Triandis, 1977). Through the cognitive revolution of the late half of the 20th century, the importance of desire, motives, and "higher-order" cognitive processes eventually came to dominant models of behavioural prediction and psychology more broadly. This was epitomised by the theory of reasoned action (Fishbein & Ajzen, 1975) and later the theory of planned behaviour (Ajzen, 1991). Fishbein and Ajzen's contemporary Harry Triandis, however, proposed the theory of interpersonal behaviour (TIB) which included habit, recognising that behavioural performance is likely determined by both reasoned, deliberative processes as well as automatic, habitual processes (Triandis, 1977). More recently, the focus on habit and other variable reflecting non-conscious processes has again started to gain traction (Wood, 2017). Given the recent resurgence in habit research, the 2019 SYNERGY expert meeting set out to establish a research agenda on habit in health psychology.

To this end, the expert meeting, headed by Dr Benjamin Gardner and Dr Phillipa Lally, discussed a range of issues related to habit research over the two days preceding the 33rd annual EHPS conference in Dubrovnik, Croatia. Topics included defining habit (Hagger, 2020; Mazar & Wood, 2018), measuring habit (Gardner & Tang, 2014; Rebar et al., 2018), habit formation and disruption (Lally et al., 2010; Lally & Gardner, 2013), the role of habit (Brown et al., 2019; Wood, 2017), and habit-based interventions (Beeken et al., 2012; Hamilton et al., 2019). Day one began with introductions which quickly demonstrated the breadth and depth of expertise within the habit, health psychology, and behavioural medicine community that was being represented in the meeting. Next, the meeting agenda was set, starting with a discussion on how to define and measure habit and habitual behaviour. What quickly became clear is there were disparate opinions and significant gaps in the literature regarding these issues. Without having a consensus on the definition of habit, and in turn, having agreed-upon tools to measure habit, it is little wonder that there remain such gaps in the broader habit literature. Of particular concern was the lack of a unified theory of habit, combining the knowledge and perspective of learning theory (Watson & de Wit, 2018), neuroscience (Smith & Gravbiel, 2014), and social psychology (Wood, 2017). Similarly, the group identified a lack of qualitative research, integrating both expert and lay perspectives to understand the experience of habit (Gardner & Tang, 2014). After exploring current measures of habit, the group discussed the potential need to develop objective measures habit, as well as measures of the different components of the habit process (e.g., implicit measures of the mental 'cue-response' association, measure of the habit impulse, or measures of the subjective experience of behavioural automaticity). Many participants agreed that innovations in technology provides great utility in being able to advance habit measures, such as using ecological momentary assessments on mobile phones (Kwasnicka et al., 2018).

A number of other topics similarly provided significant fodder for debates and discussions including the relatively recent distinction between habitually instigating a behaviour (e.g., habitually dressing in exercise clothes after work) compared executing habitually a behaviour to (e.q., habitually engaging in a specific routine once at the gym; Gardner et al., 2016; Phillips & Gardner, 2016); the existence and role of dormant habits (e.g., an existing mental cue-behaviour link that has not activated behaviour; Gardner, 2012); and the time it takes and way in which habits form, be disrupted, or completely extinguished (Lally & Gardner, 2013; Marien et al., 2018). Through individual reflection, small group, and large group discussions, participants were able to explore each of these topics to identify what is known, unknown, and likely the best avenue of future research.

The SYNERGY meeting was a great opportunity for many reasons. First, rarely opportunities exist whereby researchers from all over the world with an interest in a specific area are able to intensively work together towards shared goals. There is a special, albeit geeky, excitement that brews when one knows they can discuss, in-depth, their topic of interest with people who are genuinely interested. Second, while many of the participants had established relationships, there were still many more who only knew each other by name and had never met. This meeting, therefore, provided an incredible opportunity to establish and strengthen those professional relationships as well as create new research agendas or plans. Last, and perhaps most importantly, it was fun, engaging, and provided an opportunity to establish friends and create lifelong memories. EHPS is one of the friendliest and supportive professional organisations I have been a part of and the SYNERGY expert meeting epitomises that culture.

I want to thank the EHPS for the grant that enable me to attend the SYNERGY meeting. Flying from Australia to Europe is a great financial burden that I would not have been able to bear without the grant. Further, the meeting allowed me to establish relationships that have gone on to directly support me with a number of habit-focused papers. I look forward to further strengthening those relationships and participants in future EHPS and SYNERGY events.

Daniel Brown Danielbrown.psych@gmail.com

References

- Ajzen, I. (1991). The theory of planned behaviour. Organizational Behaviour and Human Decision Processes, 50, 179–211. https://doi.org/doi: 10.1016/0749-5978(91)90020-T
- Barandiaran, X. E., & Di Paolo, E. A. (2014). A genealogical map of the concept of habit. *Frontiers in Human Neuroscience, 8*. https:// doi.org/10.3389/fnhum.2014.00522
- Beeken, R. J., Croker, H., Morris, S., Leurent, B., Omar, R., Nazareth, I., & Wardle, J. (2012).
 Study protocol for the 10 Top Tips (10TT) Trial: Randomised controlled trial of habit-based advice for weight control in general practice. *BMC Public Health*, 12(1), 667.
- Brown, D. J., Hagger, M. S., & Hamilton, K. (2019).The Mediating Role of Reasoned-Action and Automatic Processes from Past-to-Future Behavior. psyarxiv.com/qrm5b
- Fishbein, M., & Ajzen, I. (1975). Belief, attitude, intention, and behavior: An introduction to theory and research. Addison-Wesley.
- Gardner, B. (2012). Habit as automaticity, not frequency. European Health Psychologist, 14(2), 32–36.
- Gardner, B., Phillips, L. A., & Judah, G. (2016).Habitual instigation and habitual execution: Definition, measurement, and effects on

behaviour frequency. British Journal of Health Psychology, 21(3), 613–630.

Gardner, B., & Tang, V. (2014). Reflecting on nonreflective action: An exploratory think-aloud study of self-report habit measures. *British Journal of Health Psychology*, 19(2), 258–273. https://doi.org/10.1111/bjhp.12060

Hagger, M. S. (2020). Redefining habits and linking habits with other implicit processes. *Psychology* of Sport and Exercise, 46, 101606. https:// doi.org/10.1016/j.psychsport.2019.101606

Hamilton, K., Fraser, E., & Hannan, T. (2019). Habitbased workplace physical activity intervention: A pilot study. *Occupational Medicine*.

James, W. (1891). *The principles of psychology*. Macmillan.

Kwasnicka, D., Konrad, B. M., Kronish, I. M., & Davidson, K. W. (2018). Using N-of-1 Methods to Explore Habit Formation. *In The Psychology of Habit* (pp. 231–245). Springer.

Lally, P., & Gardner, B. (2013). Promoting habit formation. *Health Psychology Review*, 7(sup1), S137–S158. https://doi.org/ 10.1080/17437199.2011.603640

Lally, P., van Jaarsveld, C. H. M., Potts, H. W. W., & Wardle, J. (2010). How are habits formed: Modelling habit formation in the real world. *European Journal of Social Psychology*, 40(6), 998–1009. https://doi.org/10.1002/ejsp.674

Marien, H., Custers, R., & Aarts, H. (2018).
Understanding the formation of human habits:
An analysis of mechanisms of habitual
behaviour. *In The psychology of habit* (pp. 51–69). Springer.

Mazar, A., & Wood, W. (2018). Defining habit in psychology. *In The psychology of habit* (pp. 13–29). Springer.

Phillips, L. A., & Gardner, B. (2016). Habitual exercise instigation (vs. Execution) predicts healthy adults' exercise frequency. *Health Psychology*, 35(1), 69.

Rebar, A. L., Gardner, B., Rhodes, R. E., & Verplanken, B. (2018). The measurement of habit. *In The psychology of habit* (pp. 31–49). Springer.

Smith, K. S., & Graybiel, A. M. (2014). Investigating habits: Strategies, technologies and models. *Frontiers in Behavioral Neuroscience*, 8, 39.

Triandis, H. C. (1977). *Interpersonal behavior*. Brooks/Cole Pub. Co.

Watson, P., & de Wit, S. (2018). Current limits of experimental research into habits and future directions. *Current Opinion in Behavioral Sciences, 20*, 33–39.

Wood, W. (2017). Habit in personality and social psychology. *Personality and Social Psychology Review, 21*(4), 389–403.

Daniel Brown

Danielbrown.psych@gmail.com

Brown