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Nudging for beginners

A shortlist of issues in urgent need of research

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Everybody is talking about it: the N word where N stands for nudging or gently directing

people to behave in the desired way. In UK the government installed the Behavioral Insight Unit ('the nudge unit') already guite a few years ago with psychologist David Halpern as its inspiring director to solve important problems relating to behavioral aspects of policy issues such as organ donation, payment of taxes, traffic behavior, and, indeed, health behavior. More recently, the US government installed a nudging officer to advise on similar issues. In the Netherlands where I live the government is reluctant to adopt the nudge concept despite recommendations to do so from important bodies on policy advice. Yet, also in the Netherlands nudging is a buzz word that attracts considerable attention from researchers and policy actors with a conference or a symposium on nudging virtually every week. These recent developments in nudging as a novel concept for influencing people's behavior have sparked debate among scholars and policy advisors alike some people becoming increasingly enthusiastic about the concept and others fierce opponents (e.g., Hansen & Jespersen, 2013; Hausman, & Welch, 2010; Loewenstein, Asch, Friedman, Melichar, & Volpp, 2012).

What is a nudge and why does the concept raise so much debate? Nudge is a concept introduced by lawyer Richard Thaler and behavioral economist Cas Sunstein several years ago. They published a concise book on nudging in 2008– Nudge. Improving decisions about health, wealth, and happiness - that was

qualified as a bestseller by the New York Times and best book of the year by The Economist. In fact, a quick Google search indicates that the N word now produces over 2000 hits with people commenting upon the nudge concept. Although the nudging term has been used previously, Thaler and Sunstein coined the term which they define as 'simple changes in the presentation of choice alternatives that make the desired choice the easy, automatic or default choice'. The nudge approach advocates libertarian paternalism: it respects freedom of choice (libertarian) but suggests sensible choices at the same time (paternalistic). Although inherent in the definition of nudges is autonomous choice, as exemplified in the libertarian part of the definition, opponents question the manipulative nature of nudges, which they qualify as smudge (Bonell, McKee, Fletcher, Haines, & Wilkinson, 2011), fudge (Yeung, 2012) or nag (The Lancet, 2012). Supporters, on the other hand, favor the subtle and gentle way nudges direct people in the desired way.

For psychologists as behavioral architects whose job it is to design and evaluate strategies for behavioral change, nudges are inspiring devices that question many important adages in understanding and explaining how people regulate their behavior. After having witnessed disappointing results of decades of persuasive communication to educate people about healthy behavior, we need something new – and maybe nudges could be part of these new ways of helping people to behave in a healthier manner. Importantly, nudges nicely align with recent insights that health behavior (as with most

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other behaviors) often is not so rational, deliberate or reasoned as we tend to believe but in many cases relies on habits, emotions or impulses (e.g., Loersch & Payne, 2011; Strack & Deutsch, 2004). Nudges may thus provide a sophisticated alternative to existing arrangements for promoting health behavior that typically encourage individuals to make effortful changes to their lifestyle which are difficult to sustain. Take for instance, the case of unhealthy eating. Many educational efforts on teaching people to eat a healthy diet have witnessed disappointing results that have proved insufficient to curb the overweight epidemic. Understanding that many people eat mindlessly (Wansink & Sobal, 2007), habitually (Verhoeven, Adriaanse, Evers, & De Ridder, 2012), or impulsively (Hofmann, Friese, & Wiers, 2008) may clarify why education is ineffectual. While many people may adopt the intention to eat more healthily, most of them forget about their intentions when they are confronted with delicious but unhealthy foods. Nudges may exploit the very nature of health behavior as automatic and reflexive, acknowledging the fact that people engage in unhealthy behavior without explicit intent.

To date, quite a few good examples exist as to how we can take advantage of health behavior as swift and intuitive in many instances. A convincing case is using distance to foods as a simple but effective way to lure people into healthy eating patterns, while leaving the alternative option still possible. Several studies have shown that increasing the distance to unhealthy food in a buffet style presentation with as little as 25cm decreased intake dramatically without any after effects on craving for food (Maas, De Ridder, De Vet, & De Wit, 2012; cf. Rozin, Scott, Dingley, Urbanek, Jiinang, & Kaltenbach, 2011; Wansink, Painter, & Lee, 2006). Recent research has demonstrated that also changes in the social (rather than the physical) environment may act as nudges, such as when the (alleged) behavior of other suggests social preference for a healthy option (De Ridder, De Vet, Stok, Adriaanse, & De Wit, 2013; Prinsen, De Ridder, & De Vet, 2013). Importantly, such effects of social nudges were also found when people had low self-control, which is commonly regarded as a risk factor for behaving (Salmon, unhealthilv Fennis, De Ridder, Adriaanse, & De Vet, 2014). Similar examples of nudging interventions that take advantage of the automatic nature of health behavior were documented in a recent Science publication advocating nudges as a superior alternative to existing health promoting interventions with additional benefits such as increased efficiency and decreased costs because the delivery of nudge-like interventions is generally cheaper and easier than the currently available public health solutions (Marteau, Hollands, & Fletcher, 2012).

However, in order to be implemented in health promotion approaches much more research is needed to understand how nudges operate and, importantly, how they operate without harming autonomous choices that would make people victims of manipulation. In fact, debate amongst opponents and proponents of the nudge concept has reached a point where it is no longer productive to discuss if there is no information available about when, how and for whom nudges are effective in steering behavior. From my experience as a researcher in selfregulation and from participating in discussions with psychologists, economists, lawyers, philosophers, and health professionals, I have learned that there are several critical issues that require empirical consideration. Here is my short list of issues that are in urgent need of further investigation.

Let's take Thaler and Sunstein's showcase example of Amsterdam Schiphol Airport men's rooms as point of departure. In order to decrease

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spilling, Schiphol management decided to install toilets with the image of an etched black housefly into each urinal to subtly encourage men to aim better; something men usually do not pay much attention to, according to Schiphol management. The result of this simple nudge was a reduction of spillage by 80 percent. While not coming close to most health behavior interventions, the Schiphol nudge example demonstrates three important principles of nudging that challenge our thoughts about nudges in the health domain: it respects autonomous choice because the alternative choice remains possible; there is some sense of awareness that people are being nudged; and the desired choice should be default as in being easy and perhaps even attractive.

Autonomy

Visitors of Schiphol men's rooms had the opportunity to ignore the subtle hint of the black fly and act otherwise than suggested, thus meeting the important requirement of nudges that alternative options must remain available. Respecting this criterion of nudges is, however, easier said than done. Take again encouragement of healthy eating as an example. Inspired by notions of environmental psychology, many people regard banning unhealthy foods from the environment as a meaningful way to make healthy choices easier. By reasoning that making unhealthy food unavailable the healthy choice is easy to implement, they overlook the very fact that the strategy of banning foods precludes a choice because the alternative option becomes impossible. Taxing unhealthy foods, another popular strategy in health promotion policies, would not qualify as a nudge either because it makes the undesired choice virtually impossible for people who cannot afford to spend money on expensive fatty foods. Taxing unhealthy foods thus qualifies as a brute shove rather than a gentle nudge. Putting unhealthy food at a distance, in contrast, does qualify as a nudge because it makes the unhealthy choice less obvious (less accessible) but not impossible (still available). Taking the autonomy criterion of nudges seriously means that health professionals should accept that people can decide to behave in an unhealthy manner if they truly wish to. Examining how nudges affect feelings of autonomous decision making is therefore an important avenue for psychological research on nudging.

Awareness

Although no research exists that has examined whether users of Schiphol men's rooms were aware of being nudged I suspect that most male visitors noticed the fly but not in such a way that they consciously deliberated about using it as a target. The issue of awareness raises important questions about nudges. On the one hand, we may argue that awareness of being nudged might ruin the nudge effect and even cause reactance because of feeling manipulated. On the other hand, it may well be that a slight suspicion of being nudged contributes to nudges' acceptability. If people would be completely unaware of being nudged and realize ex post facto that they were tricked, this would threaten the definition of nudges as respecting autonomous choice. Right now, we don't know whether and how awareness of being nudged affects effectiveness of nudges although I would speculate that some sense of awareness might contribute to feelings of agency and thus help rather than harm nudging effectiveness. The issue of awareness thus constitutes an important topic for future research on nudges.

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According to Schiphol Airport director Ad Kieboom an etched black fly in the urinal makes the desired choice of not spilling easier: "If a man sees a fly, he aims at it", he explains. If we only knew how we could take advantage of natural inclinations to behave in a certain way, designing good nudges in the health domain would be easy. Unfortunately, in many cases we don't know about these natural preferences. Making choices easier is not so simple and as a result we continue to rely on persuasion when health behavior is involved. A popular strategy make healthy choices easier is emphasizing that this particular choice is healthy by, for example, placing little stickers ("Healthy Choice!") on the product. Although this seems a reasonable way to make it easier for people to make the desired choice, research suggests the opposite effect. When stating that a choice is healthy and therefore the right thing to do, it is unintendedly emphasized that this choice is not default but exceptional. Research from Avelet Fishbach and her team demonstrated that people reported more hunger after having chosen the healthy option, probably because emphasizing the healthy qualities of a food product signals that healthy choices are not default but something people need to be convinced of (Finkelstein & Fischbach, 2010). Such ironic effects of emphasizing the healthy choice have been reported previously (Provencher, Polivy, & Herman, 2009), warning us that simply stating that a choice is healthy doesn't make the choice easy and probably even backfires. Apparently it is not so simple to communicate the easy default choice. We thus are in urgent need to know more about strategies promoting default healthy choices that go beyond the traditional epithet "this is healthy".

There is one other lesson the Schiphol black fly teaches. Although the idea of an etched fly in the urinal seems quite simple, it is also creative and convincing. We as psychologists are perhaps not in the best position to design such creative solutions to health problems. Psychologists may have good ideas about the underlying principles of human behavior change but need some assistance from creative agencies to translate these behavioral principles into effective nudges that truly rearrange the choice context and make healthy choices easy and attractive while leaving the alternative open for people who are dedicated to unhealthy behavior.

References

Bonell, C., McKee, M., Fletcher, A., Haines, A., & Wilkinson, P. (2011). Nudge smudge: UK government misrepresent 'nudge'. *The Lancet*, 377, 2158-2159.

De Ridder, D. T. D., De Vet, E., Stok, F. M., Adriaanse, M. A., & De Wit, J. B. F. (2013). Obesity, overconsumption and self-regulation failure: The unsung role of eating appropriateness standards. *Health Psychology Review*, 7,146-165.

Finkelstein, S.R., & Fishbach, A. (2010). When healthy food makes you hungry. *Journal of Consumer Research*, 37, 357-367.

Hansen, P.G., & Jespersen, A.M. (2013). Nudge and the manipulation of choice: A framework for the responsible use of the nudge approach to behavior change in public policy. *European Journal of Risk Regulation*, 1, 3-28.

Hausman, D. M, & Welch, B. (2010). Debate: To nudge or not to nudge. *Journal of Political Philosophy*, 18, 123-136.

Hofmann, W., Friese, M. & Wiers, R.W. (2008). Impulsive versus reflective influences on health behavior: A theoretical framework and empirical review. *Health Psychology Review*, 2, 111-137.

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- Loersch, C., & Payne, B.K. (2011). The situated inference model: An integrative account of the effects of primes on perception, behavior, and motivation. *Perspectives on Psychological Science*, 6, 234-252.
- Loewenstein, G., Asch, D.A., Friedman, J.Y., Melichar, L.A., & Volpp, K.G. (2012). Can behavioral economics make us healthier? *BMJ*, 344, e3482.
- Maas, J., De Ridder, D.T.D., De Vet, E., & De Wit, J. (2012). Do distant foods decrease intake? The effect of food accessibility on eating behavior. *Psychology & Health*, *27*(S2), 59-73.
- Marteau, T.M., Hollands, G.J., & Fletcher, P.C. (2012). Changing human behavior to prevent disease: The importance of targeting automatic processes. *Science*, 337, 1492-1495.
- Prinsen, S., De Ridder, D., & De Vet, E. (2013). Eating by example. Effects of social normative cues on dietary decisions. *Appetite*. 70, 1-5.
- Provencher, V., Polivy, J., & Herman, C.P. (2009). Perceived healthiness of food: If it's healthy you can eat more! *Appetite*, *52*, 340-344.
- Rozin, P., Scott, S., Dingley, M., Urbanek, J.K., Jinang, H., & Kaltenbach, M. (2011). Nudgeto nobesity I: Minor changes in accessibility decrease food intake. *Judgment and Decision Making*, 6, 323-332.
- Salmon, S., Fennis, B.M., De Ridder, D.T.D., Adriaanse, M.A., & De Vet, E. (in press). Health on impulse: When low self-control promotes healthy food choices. *Health Psychology*.
- Strack, F.,& Deutsch, R. (2004). Reflective and impulsive determinants of social behavior. *Personality and Social Psychology Review*, 8, 220-247.
- Thaler, R.H., & Sunstein, C.R. (2008). *Nudge: Improving decisions about health, wealth, and happiness.* Yale University Press.
- The Lancet (2012). Public health in England: From nudge to nag. *The Lancet*, *379*, 194. Verhoeven, A.C.C., Adriaanse, M.A., Evers, C., &

- De Ridder, D.T.D. (2012). The power of habits: Unhealthy snacking is primarily predicted by habit strength. *British Journal of Health Psychology*, 17, 758-770.
- Wansink, B., Painter, J.E., & Lee, Y.K. (2006). The office candy dish: Proximity's influence on estimated and actual consumption.

 International Journal of Obesity, 30, 871-875.
- Wansink, B., & Sobal, J. (2007). Mindless eating: The 200 daily decisions we overlook. *Environment and Behavior, 39,* 106-123.
- Yeung, K. (2012). Nudge as fudge. *The Modern Law Review*, 75, 122-148.



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