



## Nudging

### Description

**Nudge** is a concept in [behavioral science](#), [political theory](#) and [behavioral economics](#) which proposes [positive reinforcement](#) and indirect suggestions as ways to [influence](#) the behavior and [decision making](#) of groups or individuals. Nudging contrasts with other ways to achieve compliance, such as [education](#), [legislation](#) or [enforcement](#). The concept has influenced British and American politicians. Several nudge units exist around the world at the national level (UK, Germany, Japan and others) as well as at the international level (e.g. [OECD](#), [World Bank](#), [UN](#)).

See also "[Cass Sunstein on Cognitive Infiltration](#)"

Marteau, T. M., Ogilvie, D., Roland, M., Suhrcke, M., & Kelly, M. P.. (2011). Judging nudging: Can nudging improve population health?. *BMJ*

Plain numerical DOI: 10.1136/bmj.d228

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### Show/hide publication abstract

"Nudging has captured the imagination of the public, researchers, and policy makers as a way of changing behaviour, with the uk and us governments embracing it. theresa marteau and colleagues ask whether it stands up to scientific scrutiny"

Sunstein, C. R.. (2014). Nudging: A Very Short Guide. *Journal of Consumer Policy*

Plain numerical DOI: 10.1007/s10603-014-9273-1

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### Show/hide publication abstract

"This brief essay offers a general introduction to the idea of nudging, along with a list of ten of the most



important 'nudges.' it also provides a short discussion of the question whether to create some kind of separate 'behavioral insights unit,' capable of conducting its own research, or instead to rely on existing institutions."

Weinmann, M., Schneider, C., & Brocke, J. vom. (2016). Digital Nudging. Business and Information Systems Engineering

Plain numerical DOI: 10.1007/s12599-016-0453-1

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## Show/hide publication abstract

"People's decisions are influenced by the decision environment. in fact, no choice is made in a vacuum, as there is no neutral way to present choices. presenting choices in certain ways — even if this happens unintendedly — can thus 'nudge' people and change their behavior in predictable ways. 'nudging' is a concept from behavioral economics that describes how relatively minor changes to decision environments (e.g., setting defaults) influence decision outcomes — which often remain unnoticed by the decision maker. we extend the nudging concept to the digital environment. we define 'digital nudging' as the use of user-interface design elements to guide people's behavior in digital choice environments. we propose a digital-nudging process and identify opportunities for future research."

Wilson, A. L., Buckley, E., Buckley, J. D., & Bogomolova, S.. (2016). Nudging healthier food and beverage choices through salience and priming. Evidence from a systematic review. Food Quality and Preference

Plain numerical DOI: 10.1016/j.foodqual.2016.02.009

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## Show/hide publication abstract

"High rates of overweight, obesity and chronic disease are partly attributable to an increased prevalence of poor dietary choices, which are in part due to the modern environment being conducive to the development of habitual unhealthy food and beverage choices. nudging aims to influence habitual behaviors by altering the presentation of options to consumers. this systematic literature review investigated nudging interventions, as attributed by the original authors, and their effectiveness for influencing healthier choices. eight bibliographic databases from the disciplines of psychology, business and health were searched. included studies were available in the english language and as full-text peer reviewed publication. studies used nudging or choice architecture interventions that influenced adult food and beverage choices. the number of papers reporting nudging interventions (as attributed by the authors) was low, with only thirteen articles included in the review (comprising 26 primary studies). all studies fall into 'salience' and 'priming' – type nudging interventions, which were tested across different adult populations and settings – including laboratories, canteens, cafeterias and restaurants. according to the nhmrc levels of evidence (nhmrc, 2007) only two interventions were of a high level of evidence, and the majority of articles received average or poor quality ratings, as per the scottish intercollegiate guidelines. combined 'salience' and 'priming' nudges showed consistent positive influence on healthier food and beverage choices. this review had limited ability to determine



effectiveness of nudging due to various populations and settings tested and the use and reporting of incomparable outcome measures. this is the first review to synthesize nudging interventions, finding minimal uptake of nudging in the academic literature, and mixed effectiveness of nudging for influencing healthier food and beverage choices. this review is registered with prospero – crd42013005056.”

Cohen, S.. (2013). Nudging and Informed Consent. American Journal of Bioethics

Plain numerical DOI: 10.1080/15265161.2013.781704

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## Show/hide publication abstract

“Libertarian paternalism’s notion of ‘nudging’ refers to steering individual decision making so as to make choosers better off without breaching their free choice. if successful, this may offer an ideal synthesis between the duty to respect patient autonomy and that of beneficence, which at times favors paternalistic influence. a growing body of literature attempts to assess the merits of nudging in health care. however, this literature deals almost exclusively with health policy, while the question of the potential benefit of nudging for the practice of informed consent has escaped systematic analysis. this article focuses on this question. while it concedes that nudging could amount to improper exploitation of cognitive weaknesses, it defends the practice of nudging in a wide range of other conditions. the conclusion is that, when ethically legitimate, nudging offers an important new paradigm for informed consent, with a special potential to overcome the classical dilemma between paternalistic beneficence and respect for autonomy.”

Wilkinson, T. M.. (2013). Nudging and manipulation. Political Studies

Plain numerical DOI: 10.1111/j.1467-9248.2012.00974.x

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## Show/hide publication abstract

“Behavioural economics and social psychology have shown that humans have all sorts of psychological quirks. policy makers have become enthusiastic about taking advantage of these quirks through what thaler and sunstein call ‘nudges’. this article asks: when would nudging be manipulative? the article has six parts: (1) publicity and transparency, which claims that thaler and sunstein’s own attempt to deal with evil nudges is inadequate; (2) manipulation and autonomy, where the nature and wrongness of manipulation is connected to a conception of autonomy; (3) the perversion of the decision-making process – a piecemeal approach, which sorts nudges into easy and hard cases and assesses attempts to pick out certain methods, such as temptation, as manipulative; (4) the perversion of the decision-making process – general accounts, which shows why we do not have a clear, complete and correct account of what such perversion is; (5) intentions and nudging’s escape clause, where it is shown that governments that nudge as thaler and sunstein would wish do not manipulate because they do not have the intention to manipulate; and (6) consensual manipulation, where it is claimed that manipulation can, with the right consent, be consistent with autonomy.”

Benartzi, S., Beshears, J., Milkman, K. L., Sunstein, C. R., Thaler, R. H., Shankar, M., ... Galing, S.. ( 2017



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## ). Should Governments Invest More in Nudging?. Psychological Science

Plain numerical DOI: 10.1177/0956797617702501

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"Governments are increasingly adopting behavioral science techniques for changing individual behavior in pursuit of policy objectives. the types of 'nudge' interventions that governments are now adopting alter people's decisions without resorting to coercion or significant changes to economic incentives. we calculate ratios of impact to cost for nudge interventions and for traditional policy tools, such as tax incentives and other financial inducements, and we find that nudge interventions often compare favorably to traditional interventions. we conclude that nudging is a valuable approach that should be used more in conjunction with traditional policies, but more relative effectiveness calculations are needed."

Sunstein, C. R.. (2014). The Ethics of Nudging. SSRN

[doi.org/10.2139/ssrn.2526341](https://doi.org/10.2139/ssrn.2526341)

### Show/hide publication abstract

"This essay defends the following propositions. (1) it is pointless to object to choice architecture or nudging as such. choice architecture cannot be avoided. nature itself nudges; so does the weather; so do spontaneous orders and invisible hands. the private sector inevitably nudges, as does the government. it is reasonable to object to particular nudges, but not to nudging in general. (2) in this context, ethical abstractions (for example, about autonomy, dignity, and manipulation) can create serious confusion. to make progress, those abstractions must be brought into contact with concrete practices. nudging and choice architecture take diverse forms, and the force of an ethical objection depends on the specific form. (3) if welfare is our guide, much nudging is actually required on ethical grounds. (4) if autonomy is our guide, much nudging is also required on ethical grounds. (5) choice architecture should not, and need not, compromise either dignity or self-government, though imaginable forms could do both. (6) some nudges are objectionable because the choice architect has illicit ends. when the ends are legitimate, and when nudges are fully transparent and subject to public scrutiny, a convincing ethical objection is less likely to be available. (7) there is, however, room for ethical objections in the case of well-motivated but manipulative interventions, certainly if people have not consented to them; such nudges can undermine autonomy and dignity. it follows that both the concept and the practice of manipulation deserve careful attention. the concept of manipulation has a core and a periphery; some interventions fit within the core, others within the periphery, and others outside of both. "

Hansen, P. G., & Jespersen, A. M.. (2013). Nudge and the Manipulation of Choice. European Journal of Risk Regulation

Plain numerical DOI: 10.1017/S1867299X00002762

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In nudge (2008) richard thaler and cass sunstein suggested that public policy-makers arrange decision-making contexts in ways to promote behaviour change in the interest of individual citizens as well as that of society. however, in the public sphere and academia alike widespread discussions have appeared concerning the public acceptability of nudgebased behavioural policy. thaler and sunstein's own position is that the anti-nudge position is a literal non-starter, because citizens are always influenced by the decision making context anyway, and nudging is liberty preserving and acceptable if guided by libertarian paternalism and rawls' publicity principle. a persistent and central tenet in the criticism disputing the acceptability of the approach is that nudging works by manipulating citizens' choices. in this paper, we argue that both lines of argumentation are seriously flawed. we show how the anti-nudge position is not a literal non-starter due to the responsibilities that accrue on policy-makers by the intentional intervention in citizens' life, how nudging is not essentially liberty preserving and why the approach is not necessarily acceptable even if satisfying rawls' publicity principle. we then use the psychological dual process theory underlying the approach as well as an epistemic transparency criterion identified by thaler and sunstein themselves to show that nudging is not necessarily about 'manipulation', nor necessarily about influencing 'choice'. the result is a framework identifying four types of nudges that may be used to provide a central component for more nuanced normative considerations as well as a basis for policy recommendations.

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Ölander, F., & Thøgersen, J.. (2014). Informing Versus Nudging in Environmental Policy. *Journal of Consumer Policy*

Plain numerical DOI: 10.1007/s10603-014-9256-2

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“Information has not been proven a very successful means to promote voluntary behaviour change to protect the environment. on this backcloth, there is currently increasing interest in recommendations from behavioural economics focusing on making the choice architecture more facilitating for the desired behaviour. the authors present three studies demonstrating how mental shortcuts, based on subtle cues in the context, unconsciously influence human decision-making, with important consequences for the environment. two of our own studies illustrate the behavioural impacts of (a) anchoring (the design of the european energy label) and (b) default effect (the framing of a request to participate in the smart grid), and data from göckeritz et al. (*eur j soc psych* 40:514-523, 2010) are used to illustrate the impacts of (c) herding or descriptive norms (the social context of energy saving). the authors end by pointing at theoretical weaknesses in behavioural economics and calling for research to strengthening the theoretical underpinnings of this approach to behaviour change.”

Lehner, M., Mont, O., & Heiskanen, E.. (2016). Nudging – A promising tool for sustainable consumption behaviour?





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. Journal of Cleaner Production

Plain numerical DOI: 10.1016/j.jclepro.2015.11.086

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"Success of strategies for solving problems of climate change, resource efficiency and environmental impacts increasingly depend on whether changes in public behaviour can and will supplement the technical solutions available to date. a renewed perspective on existing policy tools and potential strategies for behaviour change are entering public debate that have implications for behaviour of individuals, but that also raise critical questions about the role of the government in the society and transition to sustainability. the guiding question is whether it is possible to help individuals make better decisions for themselves and society at large by overcoming limitations of human cognitive capacity and behavioural biases? in order to answer these questions, this article 1) analyses existing academic knowledge on nudging and choice architecture; 2) investigates lessons about effectiveness of applied nudging tools and approaches in consumption domains of energy use in the home, food and mobility; 3) discusses opportunities and limitations for devising more successful nudges in the three consumption domains; and 4) outlines critical issues concerning the legitimacy of nudging. the article shows that lately applications of behavioural sciences and behavioural economics, such as nudge, have been helping policy makers in different countries and sectors to more systematically integrate behavioural insights into policy design and implementation. however, the size of the effects of policy interventions and the actual outcomes of interventions in different contexts are very diverse. results from one experiment cannot be indiscriminately generalised to a different context or to a wider population. the problem is the complexity of human behaviour and the diversity of factors that influence it. despite that, nudging is a useful strategy for inducing changes in context-specific behaviour. nudge tools are seen as a complement to the traditional policy instruments rather than as a substitute for laws and regulations and economic tools. the article is based on the project funded by the swedish epa (environmental protection agency) that resulted in a report 'nudging. advancing swedish policy making with academic insights and practical experiences of changing behaviour' (mont et al., 2014), which served as an input to the swedish epa' recommendations to the swedish government on policy measures for sustainable consumption (naturvårdsverket, 2014)."

Marchiori, D. R., Adriaanse, M. A., & De Ridder, D. T. D.. (2017). Unresolved questions in nudging research: Putting the psychology back in nudging. *Social and Personality Psychology Compass*

Plain numerical DOI: 10.1111/spc3.12297

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"Nudging interventions are broadly defined as a rearrangement of a choice context that gently suggests a specific choice. their increasing popularity has attracted attention and discussion from researchers, policy makers, and practitioners alike. after some applications to domains such as health, environmental issues, and retirement savings, the next step in nudging is to understand the psychological boundary conditions when applied to varied domains of daily life. it is yet unclear for



example to what extent nudging interventions can be transparent without losing effectiveness, or how permanent the effects are. these unresolved questions may have contributed to heated political and scientific discussions, on for example the ethics of using nudges in the public health domain, due to the missing scientific evidence. indeed, this popularity may have led to forget how nudging harnesses insights from decades of research in psychology to change people's behavior. the aim of this paper is to shift the focus back to the psychological premises nudges were built upon. it summarizes several outstanding questions that future research in the psychology of nudging should address. advancing research in nudging will help to improve our understanding of applied nudging interventions and provide clarity to debates such as ethical appropriateness, effectiveness, and public approval." Bowden, J. H., Otte, T. L., Nolte, C. G., & Otte, M. J.. (2012). Examining interior grid nudging techniques using two-way nesting in the WRF model for regional climate modeling. Journal of Climate

Plain numerical DOI: 10.1175/JCLI-D-11-00167.1

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"AbstractThis study evaluates interior nudging techniques using the weather research and forecasting (wrf) model for regional climate modeling over the conterminous united states (conus) using a two-way nested configuration. ncep–department of energy atmospheric model intercomparison project (amip-ii) reanalysis (r-2) data are downscaled to 36 km × 36 km by nudging only at the lateral boundaries, using gridpoint (i.e., analysis) nudging and using spectral nudging. seven annual simulations are conducted and evaluated for 1988 by comparing 2-m temperature, precipitation, 500-hpa geopotential height, and 850-hpa meridional wind to the 32-km north american regional reanalysis (narr). using interior nudging reduces the mean biases for those fields throughout the conus compared to the simulation without interior nudging. the predictions of 2-m temperature and fields aloft behave similarly when either analysis or spectral nudging is used. for precipitation, however, analysis nudging generates monthly precipitatio..."

Rayner, G., & Lang, T.. (2011). Is nudge an effective public health strategy to tackle obesity? No. BMJ

Plain numerical DOI: 10.1136/bmj.d2177

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"The article presents the views of several health experts on the effectiveness of the british government's approach of nudging in combating obesity. according to adam oliver, nudge policies of the government may enable the people to make healthier choices. he believes that there is no restriction for the people under the nudging approach and can freely involve in the behaviour change mechanism. geof rayner and tim lang criticizes the nudging approach of the government. as per them, this strategy of public health is more than a publicly endorsed marketing strategy. they also reflect on the book 'nudge,' by richard thaler and cass sunstein, with special reference to the nudging approach of great britain's government."



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Acquisti, A.. (2009). Nudging Privacy. Citeseer

Plain numerical DOI: 10.1109/MSP.2009.163

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"Privacy decisions often involve balancing competing interests. as such, they're a natural field of study for economics. but traditional economic models have made overly restrictive assumptions about the stability and nature of individual privacy preferences. approaches drawing on existing research in behavioral economics and psychology can offer complementary tools for understanding privacy decision making. er -"

Mols, F., Haslam, S. A., Jetten, J., & Steffens, N. K.. (2015). Why a nudge is not enough: A social identity critique of governance by stealth. European Journal of Political Research

Plain numerical DOI: 10.1111/1475-6765.12073

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"Policy makers can use four different modes of governance: 'hierarchy', 'markets', 'networks' and 'persuasion'. in this article, it is argued that 'nudging' represents a distinct (fifth) mode of governance. the effectiveness of nudging as a means of bringing about lasting behaviour change is questioned and it is argued that evidence for its success ignores the facts that many successful nudges are not in fact nudges; that there are instances when nudges backfire; and that there may be ethical concerns associated with nudges. instead, and in contrast to nudging, behaviour change is more likely to be enduring where it involves social identity change and norm internalisation. the article concludes by urging public policy scholars to engage with the social identity literature on 'social influence', and the idea that those promoting lasting behaviour change need to engage with people not as individual cognitive misers, but as members of groups whose norms they internalise and enact."

Liu, P., Tsimpidi, A. P., Hu, Y., Stone, B., Russell, A. G., & Nenes, A.. (2012). Differences between downscaling with spectral and grid nudging using WRF. Atmospheric Chemistry and Physics

Plain numerical DOI: 10.5194/acp-12-3601-2012

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"Dynamical downscaling has been extensively used to study regional climate forced by large-scale global climate models. during the downscaling process, however, the simulation of regional climate models (rcms) tends to drift away from the driving fields. developing a solution that addresses this issue, by retaining the large scale features (from the large-scale fields) and the small-scale features (from the rcms) has led to the development of 'nudging' techniques. here, we examine the performance





of two nudging techniques, grid and spectral nudging, in the downscaling of ncep/ncar data with the weather research and forecasting (wrf) model. the simulations are compared against the results with north america regional reanalysis (narr) data set at different scales of interest using the concept of similarity. we show that with the appropriate choice of wave numbers, spectral nudging outperforms grid nudging in the capacity of balancing the performance of simulation at the large and small scales." von Storch, H., Langenberg, H., & Feser, F.. (2000). A Spectral Nudging Technique for Dynamical Downscaling Purposes. Monthly Weather Review

Plain numerical DOI: 10.1175/1520-0493(2000)128<3664:ASNTFD>2.0.CO;2

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"Abstract the 'spectral nudging' method imposes time-variable large-scale atmospheric states on a regional atmospheric model. it is based on the idea that regional-scale climate statistics are conditioned by the interplay between continental-scale atmospheric conditions and such regional features as marginal seas and mountain ranges. following this 'downscaling' idea, the regional model is forced to satisfy not only boundary conditions, possibly in a boundary sponge region, but also large-scale flow conditions inside the integration area. in the present paper the performance of spectral nudging in an extended climate simulation is examined. its success in keeping the simulated state close to the driving state at larger scales, while generating smaller-scale features is demonstrated, and it is also shown that the standard boundary forcing technique in current use allows the regional model to develop internal states conflicting with the large-scale state. it is concluded that spectral nudging may be seen as ..."

French, J.. (2011). Why nudging is not enough. Journal of Social Marketing

Plain numerical DOI: 10.1108/20426761111141896

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"The purpose of this paper is to review the possible contribution of 'nudging' as a tactic and 'form' of exchange and suggest two new frameworks to aid in the description of four 'forms' of exchange and 'types' of intervention that can be used in social marketing. discursive review of the contemporary impact of liberal paternalistic thinking on policy and operational delivery of social change programmes. the paper also considers the tensions within social marketing regarding voluntary and involuntary change including the use of incentives and disincentives in social change programmes and presents a model that seeks to describe the range of options available. it is concluded that in addition to restricted, generalised and complex exchanges, as defined by bagozzi there are basically four basic 'forms' of exchange that can be used by governments and public institutions who apply a marketing approach to brining about positive social change. these 'forms' of exchange includes 'nudging' but also other legitimate 'forms' of exchange that can be called 'shoving', 'hugging' and 'smacking'. it is further suggested that together with these four 'forms' of exchange there are five basic 'types' of intervention that can be used to bring about change, these two elements can all be brought together in a proposed intervention matrix. the paper makes the case that a key advantage of adopting a marketing mind-set



(i.e. one that is driven by consumer-centric thinking and based on the creation of value) in the selection of 'forms' of exchange and 'types' of intervention is that the selected mix will be much more likely to bring about the socially desired change because it is informed by the preferences and consent of the majority of citizens. this paper does not explicitly address the nature of social marketing. a position is taken that social marketing is what gallie has defined as an "essentially contested concept " and what peters would term a 'field of study'. this means that social marketing will by its nature just like many other fields of endeavour be subject to continuous debate and development. consequently, in adopting this position, the paper tacitly accepts a broad and inclusive definition of social marketing. the proposed exchange matrix and intervention matrix, together with the decides framework outlined in the paper need to be tested to discover if these models have utility in being able to accommodate existing social marketing practice and inform the select..."

Hanks, A. S., Just, D. R., Smith, L. E., & Wansink, B.. (2012). Healthy convenience: Nudging students toward healthier choices in the lunchroom. *Journal of Public Health (United Kingdom)*

Plain numerical DOI: 10.1093/pubmed/fds003

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"BACKGROUND: in the context of food, convenience is generally associated with less healthy foods. given the reality of present-biased preferences, if convenience was associated with healthier foods and less healthy foods were less convenient, people would likely consume healthier foods. this study examines the application of this principle in a school lunchroom where healthier foods were made more convenient relative to less healthy foods.nnmethods: one of two lunch lines in a cafeteria was arranged so as to display only healthier foods and flavored milk. trained field researchers collected purchase and consumption data before and after the conversion. mean comparisons were used to identify differences in selection and consumption of healthier foods, less healthy foods and chocolate milk.nnresults: sales of healthier foods increased by 18% and grams of less healthy foods consumed decreased by nearly 28%. also, healthier foods' share of total consumption increased from 33 to 36%. lastly, we find that students increased their consumption of flavored milk, but flavored milk's share of total consumption did not increase.nnconclusions: in a school lunchroom, a convenience line that offered only healthier food options nudged students to consume fewer unhealthy foods. this result has key implications for encouraging healthy behavior in public schools nation wide, cafeterias and other food establishments."

Hansen, P. G., Skov, L. R., & Skov, K. L.. (2016). Making Healthy Choices Easier: Regulation versus Nudging. *Annual Review of Public Health*

Plain numerical DOI: 10.1146/annurev-publhealth-032315-021537

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"In recent years, the nudge approach to behavior change has emerged from the behavioral sciences to challenge the traditional use of regulation in public health strategies to address modifiable individual-level behaviors related to the rise of noncommunicable diseases and their treatment. however,



integration and testing of the nudge approach as part of more comprehensive public health strategies aimed at making healthy choices easier are being threatened by inadequate understandings of its scientific character, its relationship with regulation, and its ethical implications. this article reviews this character and its ethical implication with a special emphasis on the compatibility of nudging with traditional regulation, special domains of experience, and the need for a more nuanced approach to the ethical debate. the aim is to advance readers' understanding and give guidance to those who have considered working with or incorporating the nudge approach into programs or policies aimed at making healthful choices easier."

### **Category**

1. General

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web45