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Balancing Autonomy and Decisional Enhancement: An Evidence-Based Approach

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Blumenthal-Barby and Burroughs (2012) discuss the ethical issues relevant to the use of several types of nudges (Thaler and Sunstein 2008) designed to help people make better health-care decisions. Prominent among these, given the high value in modern society placed upon freedom of the individual from external influence, is the notion that such strategies may infringe upon autonomy (House of Lords Science and Technology Select Committee 2011). How the public perceives the trade-off between the value that health care nudges afford and any infringement of autonomy that may obtain is unknown. We suggest that public perception of this balance is critical to any policy designed to improve individual decision making, health-related or otherwise.

Nudges are one form of “decisional enhancement”—strategies for improving decision making—that particularly target the well-described biases pervasive in human cognition. We find it useful to consider such decisional enhancement within the framework of a dual-process theory of cognition. This theory posits two distinct, interacting systems: System 1, which is heuristic-based, quick and inflexible, automatic, and relatively undemanding of cognitive capacity; and System 2, which is rational, relatively slow and flexible, and demanding of cognitive capacity (e.g., De Neys 2006; Evans 2003; Metcalfe and Mischel 1999; Sloman 1996; Smith and DeCoster 2000). This framework suggests a distinction between what we call *lower order nudges*, which intervene at the System 1 level, and *higher order nudges*, which intervene at the System 2 level. Lower order nudges, for example, those based on salience, affect, or subconscious priming, operate by engaging cognitive processes outside of conscious awareness; the resultant decisions would not be considered fully autonomous, as the notion is generally conceived (Felsen and Reiner 2011). Some nudges, such as default-

social norm-, and ego-based-nudges, engage elements of both System 1 and System 2, and may therefore represent an intermediate threat to autonomy. Finally, higher order nudges, for example, those based on incentives or commitments, operate by engaging deliberate consideration of the issue at hand. As recognized by Blumenthal-Barby and Burroughs (2012), higher order nudges would not seem to infringe unacceptably on an individual’s autonomy.

However, it is worth recalling that the brain has not evolved to maximize autonomous decision making, but rather to make decisions that are most likely to promote survival; in practice, heuristic-based, System 1 processes are often best suited for this purpose. This means that many decisions that appear to be deliberative and rational (i.e., System 2-based) may not be as autonomous as traditionally assumed (Felsen and Reiner 2011). In such instances, attempting to preserve autonomy by limiting the types of nudges employed may be impractical: To the extent that decisions are already covertly influenced outside of conscious awareness (via System 1 processes), full autonomy cannot be preserved, and we should therefore not be overly concerned with the autonomy-related effects of nudges. In any case, rather than speculating upon whether a particular nudge infringes on autonomy (the answer is often yes, irrespective of how well-meaning the nudger might be), we suggest that the relevant question is how *acceptable* the infringement on perceived autonomy might be. If an individual believes that her or his autonomy is threatened by a particular type of nudge, she or he may either disapprove of being nudged on the grounds that her or his sense of autonomy is undermined, or the individual may approve of being nudged, perhaps because she or he believes that the resulting “nudged” decision will lead to a better outcome. It

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may even be the case that certain classes of nudges—some lower order, some higher order—are more acceptable than others. Given that the public is an important stakeholder in any public health program, empirical data on how the public perceives the proper balance between decisional enhancement and autonomy will inform our understanding of the ethical implications of such programs.

In addition to these public opinion data, the *effectiveness* of both higher and lower order nudges is relevant here. There is already some evidence suggesting that the most effective nudges are lower order (Duffy and Verges 2008; Goldstein et al. 2008; Nolan et al. 2008), which appear (from the armchair) to represent the greatest threat to autonomy. It may be the case that obtaining data on the acceptability of autonomy infringement will result in an ethical public policy dilemma: If the most effective nudges are also the least acceptable to the public, whether they should be utilized is an open question (Gaylin and Jennings 2003). However, such data would only expose, not create, this dilemma. Alternatively, the data may reveal that the most effective health-care nudges are also the most acceptable, suggesting a route to an optimal, evidence-based policy. Regardless of the outcome, public policy can only be strengthened by the empirical evidence. ■

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