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## Meta-nudging honesty: Past, present, and future of the research frontier

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# Meta-Nudging Honesty: Past, Present, and Future of the Research Frontier

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## Abstract

Achieving successful behavior change via nudging is hard. This is particularly true when choice architects attempt to change behavior that is collectively harmful but individually beneficial. In this paper, we review the state-of-the-art of the behavior change literature to assess both robust evidence on the motives for lying and promising interventions to curb lying. Existing literature points to combining simple behavioral interventions (e.g., norm-nudging) with interventions that contain pecuniary consequences (e.g., norm enforcement via punishment). In this context, we also discuss the idea of ‘meta-nudging’: rather than pursuing the classical approach to nudge targeted behavior *directly*, one may instead want to nudge behavior *indirectly* by targeting those who are in positions of power and have the ability to enforce norm adherence of others. Research suggests that delegating the enforcement of norm prescriptions can be a promising approach to nudge honesty.

*Keywords:* Behavior Change, Honesty, Lying, Nudging

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## Introduction

Research on nudging suggests that behavior change is difficult, often fails, and at times even backfires [1–4]. Evidently, this is not only the case when societal norms regarding the proper behavior are vague and contain wiggle-room [5], but also when norms are firmly established and followed by one’s peers [6–10]. Take for example, the norm of honest behavior, which

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is praised and socially desirable. Nonetheless, high-profile and systemic cases of dishonesty still persist (see, e.g., the recent Enron, Madoff, and Volkswagen scandals) [11]. Often, these instances are characterized by *collaborative dishonesty* in which the success of a dishonest act relies on successful coordination within groups [12–16].

In this article, we synthesize the research frontier at the intersection of honesty and behavior change. We focus on highlighting three aspects in particular:

1. How does cutting-edge research approach providing robust evidence that is useful to public policy?
2. What are the relevant individual, collective, and institutional factors that drive dishonesty, and why is nudging honesty not trivial?
3. What do we know about how to nudge honesty successfully, whom to target, and what pitfalls to avoid?

### **How does science inform public policy to reduce dishonesty?**

For behavioral public policy to be effective and to have “bite”, the underlying evidence that informs the policies needs to be robust. To achieve this, recent trends in the academic community include:

- (a) the use of prediction markets that harness the forecasting ability of individuals to predict the replicability of existing and effectiveness of future interventions [17–20]
- (b) so-called ‘megastudies’ in which independent teams of scholars test different interventions to achieve behavior change [21–23]
- (c) meta-analytical evaluation of existing research, published and unpublished, to identify impact and robustness of interventions while also accounting for publication bias as much as possible [24, 25].

These approaches are not necessarily distinct and often end up blending, for example, interventions with prediction markets and forecastings [25–27]. This avenue has been particularly promising in the context of the replication movement [18]. Research on dishonesty can – and often already does – leverage these methodological insights [16, 28, 29].

In what follows, we will discuss this research in more detail and provide an outlook for the most promising approaches to nudge honesty.

## Drivers of dishonesty

One line of research examining the mechanisms of and remedies for dishonesty has established that *individual* factors play an important role. These typically come in two forms: first, one’s ability to exploit moral wiggle-rooms via self-serving justification [30–33]. That is, individuals are able to abuse an existing moral wiggle-room by reinterpreting, distorting, or purposefully forgetting existing evidence favoring norms of honesty [5, 34–38]. Second is the purposely selective seeking and processing of relevant information, which allows individuals to remain ignorant and maintain plausible deniability [39–43]. This line of research emphasizes dishonesty as largely independent of others.

Another line of research emphasizes the role of *collective* factors in driving dishonesty. These include settings in which one finds justification for one’s own dishonesty in the dishonesty of peers [12, 15, 16]. The core insight here is that social reinforcement via observing and being observed by one’s peers is interpreted as a signal of the dominant social norm, which can accelerate the contagion of dishonesty [1, 8, 44, 45].

We can turn to meta-studies to better understand what robustly predicts dishonest behavior. A recent meta-analysis [16] on collaborative dishonesty analyzed 87,771 decisions across 21 behavioral tasks by 10,923 participants. Meta-analytical results revealed various factors that increase collaborative dishonesty, including higher financial incentives, conducting a lab experiment rather than a field experiment, and absence of negative externalities of one’s lies on others. Collaborative dishonesty is also higher in studies using no experimental deception, and when groups consist of younger individuals and more males. The latter is also consistent with previous research, suggesting that men are more dishonest than women [29, 46, 47]. Perhaps most relevant to our discussion here, however, is the finding the behavior of different group members is correlated when they interact repeatedly. That is, participants are more likely to lie when their partners lie, and lying increases as the task progresses. This is consistent with the findings that deviance breeds deviance [48, 49] and that norms of good behavior are quick to deteriorate over time [8].

Interestingly, some of the findings on collaborative dishonesty [16] also emerge in individual decision making settings. For example, the correlations suggest that older people are also more honest [28, 29], lack of experimental deception leads to higher levels of dishonesty [29], and lying is more pronounced in the lab than in the field [29]. That said, in individual settings, no effect was found for financial incentives on the level of dishonesty [28, 29]. Taken together, those three meta-studies inform our understanding on the settings

in which people may lie and conversely - when they would be most likely to act honestly.

From this, it is evident that the decision to engage in (dis)honest behavior is driven by an interplay of factors at both the individual and collective level. This, in turn, suggests that nudging honesty is not a trivial proposition. In what follows, we will unpack a few nudging approaches that have shown promise to tackle dishonesty successfully.

### **Challenges with and promising approaches for nudging honesty**

Nudges can be a potent way to achieve behavior change [6, 50]. Importantly, however, nudges that target honesty are frequently unsuccessful and their effectiveness varies, thus highlighting that nudging honesty is not trivial. This is supported by empirical research, both in the lab and in the field, indicating that mitigating dishonest behavior through behavioral interventions alone, e.g. norm-nudges or defaults, is challenging [6, 9, 35, 50–53]. This is further augmented by theoretical arguments stressing that the *nudgeability* of individuals matters, which is often overlooked in existing research and deserves more scholarly attention moving forward [54]. That is, an individual’s predisposition towards the targeted behavior is a strong determinant of how effective an intervention ultimately is. Opposing attitudes can effectively render individuals ‘unnudgeable’, thus calling for more ‘forceful’ interventions (such as monetary incentives) – on top of the more light-touch behavioral interventions discussed above – to reduce dishonesty [9, 26, 47, 55, 56].

Arguably, mitigating dishonesty is more challenging at the collaborative level since the social settings involve a number of additional layers that can act as catalysts, such as peer pressure to engage in and fear of retaliation when not conforming to the norm of dishonesty behavior [57, 58]. Thus, behavioral interventions that show promise at the individual level may or may not translate to the more complex collaborative environment in which peer effects are at play. To achieve success, one may have to draw on behavioral interventions that target mechanisms on both the individual and collective level.

One such promising new approach has been coined ‘meta-nudging’ and suggests that one can also successfully nudge individuals *indirectly* by harnessing the power of social norms enforcement [56]. That is, by targeting those who enforce behavior – rather than those whose behavior one wants to alter – behavioral interventions would aim at nudging individuals in positions of power who have the ability to enforce the transgressors’ adherence to social norms. Arguably, behavioral interventions that rely on delegated policing (“hired gun”) might both be perceived less intrusive and more successful in that they would

capitalize on existing peer mechanisms [59] and can complement nudging directly at the individual level [21–23, 60–62]. Thus far, this approach has been mostly tested successfully in individual-decision environments [56, 63]. Investigating whether these interventions are also successful in collaborative environments that are characterized by social interactions remains an empirical question.

## **Conclusion**

Behavior change is hard. This is even true when individuals are ‘nudgeable’ and have a pre-disposition that favors behaviors that one can generally agree on is largely beneficial, such as eating healthier. However, it is arguably even harder to try to change behavior that – even though it is detrimental on a collective level and potentially also violates existing social norms – is beneficial at the individual level. That is, a collective understanding of what is ‘right’ alone is insufficient in mitigating such behavior. In this paper, we have reviewed behavioral interventions that are at the forefront of successfully nudging honesty. Our main insight is that, while various approaches have shown promise, future research may want to put emphasis on developing a more fine-grained understanding of the interplay of motives for lying on both the individual and the collective level.

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