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BORSE DI STUDIO DI DOTTORATO DI RICERCA SU TEMATICHE INNOVAZIONE E GREEN

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Tematica Vincolata “Spinta gentile, formazione delle credenze e azioni sostenibili”

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Tematica: Green

The best scientific evidence on human cognition conveys a mixed message. On the downside, we seem to be far less rational than we like to think (Kahneman et al. 1982). On the upside, however, our irrationality turns out to be largely predictable and can hence be used to our advantage (Ariely 2008). *Nudging* has recently proved a very powerful tool for influencing people’s choices and behaviors both in the private and the public sphere. The basic insight of *nudge* theory is that small changes in people’s choice architecture can often have macroscopic effects both on their own welfare, and on the one of their social groups (Thaler, Sunstein 2008). As of today, behavioral interventions are widely recognized as pivotal in facing many of the local and global challenges of our time, such as low voter turnout or health emergencies like the ongoing COVID-19 pandemic. Many countries and political unions, including the EU, routinely rely on *behavioral insights teams* whose main function is to advise governments on which policies to implement, when and how, by drawing on cutting-edge behavioral science (Halpern 2015). In a similar scenario, so-called *green nudging* is bound to become an increasingly important weapon to confront the alarming global threat of climate change (Beckenbach, Kahlenborn 2016).

Research on nudging is a highly interdisciplinary effort, involving cross-fertilization among several fields. One of its main goals, at the moment, is to enhance the effectiveness and



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replicability of behavioral interventions. To this end, it has lately been emphasized the urgent need to reach a deeper theoretical understanding of the cognitive mechanism underlying the effectiveness (or lack thereof) of specific nudges. One and the same behavioral outcome – e.g., the renowned *default effect* – often admits of different explanations, each appealing to a different underlying mechanism. Figuring out which one of them is actually responsible for the observed behavior is of crucial importance in order to forecast which kinds of nudge are most likely to be effective in a given context (Grüne-Yanoff 2016). “When it comes to nudging” – as it has been put – “to know ‘what works’ you need to know why it works” (Hansen 2019: 11).

The planned research consists in a theoretical and experimental investigation of the as yet unclear interactions between *green nudging* and sustainability-relevant *beliefs* within the context of online environmental campaigns – it will involve a 6 months collaboration with *Antimatter*, a motion and animation studio that will contribute € 10.000 to the project.

Our behaviors are at least partly explainable and hence predictable in terms of our beliefs. As a consequence, it has lately been suggested that to design an effective nudge one should take into account the target population’s beliefs over and above their behaviors and the context within which they act – in the relevant literature, behavioral interventions that capitalize on this suggestion have been referred to as *budges* (Hauser et al. 2019). This hypothesis has so far proved fruitful. Some initial evidence coming from field experiments suggests that nudging is indeed less effective when the beliefs of a target population fail to align with the intended outcome of the behavioral intervention (Dewies et al. 2021). A question that is starting to receive more attention is consequently whether, and to which extent, nudging can have an impact not just on our behaviors, but on our conscious beliefs as well. The very nature of these mental states does indeed suggest the possibility of some form of *doxastic nudging* (Grundmann 2021). Our beliefs, after all, are automatic responses to the available evidence, and the control we have over their formation is typically of an indirect sort. If by entering a room we perceive the light to be off, we cannot intentionally form the belief that it is on, yet we can easily create the conditions for it to form by pushing the light switch. Theoretically, then, doxastic nudging seems clearly possible. Its underlying cognitive mechanisms, however, are arguably much less clear. An interesting suggestion, in this regard, comes from the current scientific and philosophical debate on *self-knowledge* – i.e., the knowledge of one’s own mental states. Traditionally, it has been more or less taken for granted that our attributions of mental states to ourselves and to others rely on fundamentally different cognitive mechanisms. Over the past century, however, this Cartesian ‘axiom’ has been radically questioned both theoretically (Ryle 1949) and empirically (Carruthers 2011). The main idea of Peter Carruthers *Interpretive Sensory-Access (ISA) Theory*, for instance, is that the epistemic access we normally have to our own mental states, just as the one we have to the mental states of others, is mainly inferential – i.e., based on evidence that is not introspective, but largely behavioral in kind. If Carruthers’ proposal is even roughly on the right track, then the prospects for using nudges to influence people’s beliefs have so far been underestimated – by influencing our behaviors, that is, a nudge should be able to indirectly affect our self-ascriptions of beliefs as well.



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The research proposal outlined above is in line with one of the Development Trajectories set by the Thematic Area ‘Digital Agenda, Smart Communities, Smart Mobility Systems’ of the National Smart Specialisation Strategy (SNSI 5.4.4). The Trajectory in question concerns ‘Smart Building Technologies, Energy Efficiency, Environmental Sustainability’ (SNSI 5.5.6). People’s beliefs about the last two items in this list will be specifically targeted by the planned research. The proposal is also congruent with the National Research Program (PNR) 2021-2027, as the latter explicitly identifies the promotion of interdisciplinary research as one of its system priorities (PNR 4.3) – “Il più delle volte, le scoperte scientifiche avvengono al confine delle tradizionali discipline accademiche, determinando una contaminazione positiva di competenze



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interdisciplinari e nuovi modi di produzione, diffusione e uso della conoscenza” (p.23). Current research on nudging, as already mentioned, has so far been a deeply interdisciplinary effort. The project’s main focus on green beliefs, in particular, pertains to a specific Area of Intervention – ‘cambiamento climatico, mitigazione e adattamento’ (PNR 5.5.2) – within the larger Area of Research and Innovation ‘clima, energia, mobilità sostenibile’ (PNR 5.5) One of the intended goals of this intervention reads as follows: “individuare azioni e progetti innovativi che portino ad una riduzione delle emissioni e dei fabbisogni energetici” (PNR 5.5.2, Articolazione 6, p. 124). This is precisely what choice architects aim at when implementing *green nudges* in public policy. As part of it will be carried out in collaboration with a motion and animation studio, the planned research will enable an exchange of knowledge and competences between the academic world and the production system. Moreover, as the studio in question is specialized in online campaigns, the results of the proposed research are expected to have a tangible impact on the development of innovative ways to conceive of climate action. Last but not least, advancing our understanding of nudging-related cognitive mechanisms holds the potential for averting both the environmental and social consequences of climate change.