SCHOOL OF ECONOMICS, BUSINESS AND COMPUTER SCIENCE

NUDGE: WHAT IS IN A WORD?: A CRITICAL APPRAISAL

SPYRIDON PARTHENIS

JANUARY/2023

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Dissertation which was submitted for obtaining a distance postgraduate degree in Public Administration (specialization General Administration) at Neapolis University

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This Dissertation was submitted for obtaining a distance postgraduate degree in Public Administration (specialization General Administration) at Neapolis University and was approved on February 11, 2023, by the members of the Examination Committee.

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DECLARATION

I, Spyridon Parthenis, being fully aware of the consequences of plagiarism, declare responsibly that this paper entitled “Nudge: What Is It In A Word?: A Critical Appraisal*”,* is strictly a product of my own personal work and all sources used have been duly stated in the bibliographic citations and references. Where I have used ideas, text and/or sources of other authors, they are clearly mentioned in the text with the appropriate citation and the relevant reference is included in the bibliographic references section with a full description.

The Declarant

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ΠΕΡΙΛΗΨΗ

Δεκαπέντε χρόνια μετά από την εισαγωγή στα συμπεριφορικά οικονομικά της Θεωρίας της Ώθησης, μιας κεντρώας πολιτικής και φιλοσοφικής θεωρίας, που περιγράφεται στο ομώνυμο βιβλίο *Nudge* των Richard Thaler και Cass Sunstein, που κυκλοφόρησε τον Απρίλιο του 2008, πέντε μήνες πριν από την κατάρρευση της Lehman Brothers, η ακαδημαϊκή έρευνα φαίνεται να παραμένει ακόμη διχασμένη όσον αφορά στο φιλοσοφικό, επιστημολογικό και πολιτικό υπόβαθρό της και τον πραγματισμό της (πρακτική στάση) απέναντι στη χάραξη δημοσίων πολιτικών. Η Θεωρία της Ώθησης βασίζεται στην οξύμωρη πολιτικό-φιλοσοφική έννοια του φιλελεύθερου πατερναλισμού, που επιχειρεί να συμφιλιώσει δύο διαμετρικά αντίθετες πολιτικές παραδόσεις. Από τη μια πλευρά, οι νεοφιλελεύθεροι (από την αριστερά και από τη δεξιά) δίνουν προτεραιότητα στην ατομική ελευθερία και απορρίπτουν την πατερναλιστική συνιστώσα της θεωρίας που δικαιολογεί την κρατική παρέμβαση στις ιδιωτικές υποθέσεις χωρίς τη συγκατάθεση των ατόμων ενώ από την άλλη πλευρά, οι πατερναλιστές ή σοσιαλδημοκράτες από την αριστερά δικαιολογούν τις πατερναλιστικές πολιτικές που μεταβάλλουν τη συμπεριφορά των ατόμων και περιορίζουν τις επιλογές των πολιτών για το δικό τους καλό. Ο σκοπός της παρούσας διατριβής είναι να γεφυρώσει αυτό το χάσμα, ανακεφαλαιώνοντας και ενσωματώνοντας τις τρέχουσες ερμηνείες των συμπεριφορικών οικονομικών ή οικονομικών της ώθησης προς μια θεωρητική σύνθεση. Ειδικότερα, στόχος είναι: α) να γίνει μια κριτική αξιολόγηση της Θεωρίας της Ώθησης, και β) να προσδιοριστεί η εγγενής αξία της, δηλαδή εάν και σε ποιο βαθμό οι δημόσιες πολιτικές ώθησης μπορούν να ωφελήσουν τους πολίτες, τους χαράσσοντες δημόσιες πολιτικές και την κοινωνία γενικά. Τα ευρήματά μας καταδεικνύουν ότι η Θεωρία της Ώθησης αποτελεί μια καινοτόμο, πρακτική και χρήσιμη θεωρία, που θα μπορούσε να βοηθήσει τα κράτη να εκπληρώσουν τους στόχους πολιτικής τους καθώς διασυνδέει την άποψη του κράτους για το δημόσιο συμφέρον με τα εικαζόμενα προσωπικά συμφέροντα. Οι ωθήσεις φαίνονται να αποτελούν ένα διαδεδομένο, οικονομικά αποδοτικό, επιτυχημένο εργαλείο πολιτικής, το οποίο δοκιμάζεται και εφαρμόζεται από κρατικούς φορείς σε συνδυασμό με τα παραδοσιακά εργαλεία πολιτικής καθώς οι πολίτες παρακινούνται διακριτικά να προσαρμόσουν τη συμπεριφορά τους σε πολιτικά προκαθορισμένες νόρμες. Ωστόσο, οι ωθήσεις πρέπει να εφαρμόζονται με εξαιρετική προσοχή. Σύμφωνα με τα ευρήματά μας, η Θεωρία της Ώθησης είναι σημασιολογικά χαλαρή, μεθοδολογικά και επιστημολογικά αδιαφανής, με ασαφείς έννοιες και μη διαφανείς αιτιώδεις μηχανισμούς. Η πρακτική αποτελεσματικότητα των ωθήσεων είναι ιδιαίτερα αβέβαιη και ευμετάβλητη καθώς υπάρχει αντιφατική εμπειρική υποστήριξη των υποθέσεων της θεωρίας. Τέλος, οι ωθήσεις δεν είναι πάντα διαφανείς, συνειδητές και αυτό-στοχαστικές, γεγονός που ενδεχομένως να υπονομεύει την ατομική αυτονομία και ελευθερία.

Λέξεις κλειδιά: ώθηση, φιλελεύθερος πατερναλισμός, συμπεριφορικά οικονομικά, αρχιτεκτονική επιλογών, υπευθυνοποίηση των πολιτών

ABSTRACT

Fifteen years after the introduction of Nudge Theory in behavioral economics, a centrist political and philosophical doctrine, which is developed in Richard Thaler and Cass Sunstein's eponymous book *Nudge* (2008), existing scholarship still seems to be divided on its philosophical, epistemological, and political underpinnings and its pragmatism towards public policymaking. Nudge Theory is based on the oxymoronic political philosophy concept of libertarian paternalism, which seeks to reconcile two diametrically opposed political traditions. On the one hand, libertarians or neoliberals (from both left and right) prioritize individual freedom and rebuff the paternalistic component of the theory, which justifies state interference in people's affairs without their consent while on the other hand, paternalists or social democrats from the state left justify paternalistic policies which modify the behavior of individuals and restrict citizens' choices for their own good. The aim of this dissertation is to bridge this gap by summarizing and integrating current understandings of 'Nudge' (or behavioral) economics towards a theory synthesis. More specifically, it aims at a) critically appraising Nudge Theory; and b) defining its merit, that is to say whether and to what extent public nudge policies can benefit citizens, policymakers and society as a whole. Our findings show that Nudge Theory is an innovative, practical and useful theory, which could help governments fulfill their policy ambitions as it links the state's view of the public interest with assumed personal interests. Nudges seem to be a widespread, cost-effective, successful policy tool, which is tested and implemented by government agencies, along with conventional policy instruments as citizens are subtly incentivized to conform their behavior with politically defined norms and public policy goals. However, nudge interventions should be applied with extreme caution. According to our findings, nudge theory is semantically relaxed, methodologically and epistemologically opaque, with ill-defined concepts and non-transparent causal mechanisms. The policy effectiveness of nudges is highly uncertain and volatile as there is inconsistent empirical support for the theory's assumptions. Finally, nudges are not always transparent, conscious, and self-reflective, which may undermine individual autonomy and liberty.

Keywords: nudge, libertarian paternalism, behavioral economics, choice architecture, citizen responsibilization

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LIST OF ABBREVIATIONS AND ACRONYMS

AI	Artificial Intelligence
BE	Behavioral Economics
BETA	Behavioural Economics Team (Australian Government)
BI	Behavioral Insights
BIT	Behavioural Insight Team (UK)
BPA	Behavioral Public Administration
BPP	Behavioral Public Policy
CCBI	Competence Centre on Behavioural Insights (DG JRC)
DG JRC	Directorate-General Joint Research Centre (EC)
DG SANCO	Directorate-General for Health and Food Safety (EC)
EC	European Commission
EESC	European Economic and Social Committee (EU)
eMBeD	Mind, Behavior, and Development Unit (World Bank)
EOP	Executive Office of the US President
EU	European Union
FDA	US Food & Drug Administration
GSA	General Services Administration (US Government)
HOL STSC	House of Lords Science and Technology Select Committee (UK Government)
LP	Libertarian Paternalism
MSRP	Methodology of Scientific Research Programs
NE	Neoclassical Economics
NSLP	National School Lunch Program of USDA
NSTC	National Science and Technology Council (US Government)
OECD	Organization for Economic Cooperation and Development
OES	Office of the Evaluation Sciences (US Government)
OGP	Office of Government-wide Policy (US Government)
OIRA	Office of Information and Regulatory Affairs (US Government)
OPSI	Observatory of Public Sector Innovation (OECD)
OSTP	Office of Science and Technology Policy (US Government)
RCT	Randomized Control Trial
SSBS	Subcommittee on Social and Behavioral Sciences (US Government)
SNA	School Nutrition Association (US)
UK	United Kingdom
US	United States
USDA	US Department of Agriculture
4IR	Fourth Industrial Revolution

INTRODUCTION

There has been a spectacular technological progress and a fundamental change in the economy and society in recent years, which has been labeled as the Fourth Industrial Revolution (henceforth 4IR). 4IR "is not about smart and connected machines and systems. Its scope is much wider. Occurring simultaneously are waves of further breakthroughs in areas ranging from gene sequencing to nanotechnology, from renewables to quantum computing." (Schwab, 2016). The physical domain (materials, locations and machines), the digital environment and the biological domain (processes, human physiology and psychology) are fused with different types of technologies (e.g., AI, Cloud Computing, robotics, 3D printing) to produce new forms of intelligence, which blurs the boundaries between the three domains as well as the line between hardware and software systems (Skilton & Hovsepian, 2018, pp. 14-15; Maynard, 2015, p. 1005). 4IR has revolutionized how we live, work, and communicate with others. There is a constant interaction between humans and machines as we are surrounded and surveilled by technology in our daily lives: when we search on the Internet, when we make contactless payments for goods and services with our smartphone or smartwatch, when we order a book or buy a flight ticket online, when we use social media platforms (e.g., Facebook, Instagram), there is always an AI algorithm behind them which collects data and activities about our preferences and choices and exploits them to predict our human behavior and nudge us to a specific direction.

4IR raises numerous difficult philosophical, moral and practical questions about the future of humanity (Peckham, 2021, Tanguay, 2021). 4IR is taking place in the age of 'surveillance capitalism', which signals the persistent goal of potent high-tech businesses to buy and sell forecasts about our behavior in menacing new 'behavioral futures markets' even if they have to confront governments (Zuboff, 2019). We all remember Mark Zuckerberg's, Facebook's chief executive, testimony to US Congress in 2018 amid the Facebook–Cambridge Analytica data sharing scandal (Watson, 2018). Former US Secretary of State, Madeleine Albright, has aptly noted that governments have been assigned with understanding and responding to a variety of 21st-century challenges, equipped with a 20th-century mentality and 19th-century institutions (Elmi & Davis, 2018). This means that governments, more than ever, should grasp the new complex role they are asked to play in the globalized and ever-changing digital transformation reality. They should design public policies which

will help humanity to effectively address ‘black swan’ events, unprecedented, unpredictable, low-probability, rare events with extreme impact (e.g., COVID-19 pandemic) (Taleb, 2017) or ‘grey rhino’ events, highly probable, high impact events which we could have anticipated as there was a series of warnings and visible evidence, but which was neglected or ignored (e.g., the 2008 financial crisis) (Wucker, 2016).

Today human behavior is the biggest threat not only to us but also to humanity as the causes of many big social problems like climate change are anthropogenic. We keep on eating more than we have to and we become obese, although we know that this is not good for our health. We keep consuming more electric energy than is needed, although we know that there is a high risk of depleting the earth’s energy resources soon. We keep driving at very high speeds although we know that there is an increased risk of being killed in a car accident. Nevertheless, this does not mean that we intend to change our behavior; for human behavior to change, what is needed is reasonable design solutions that take on board the basic human instincts, flaws and habits.

It is at this point that the nudging technique comes in. Nudges are an additional government policy instrument to help citizens make responsible decisions and improve their quality of life. For example, governments may subtly push and encourage people to amend their eating habits, consume less energy and drive at lower speeds. Over the following years, behavioral[1] sciences and behavioral economics in particular are expected to play a crucial role in the smooth transition of society amid dramatic changes which accompany 4IR. Behavioral economics is a relatively recent discipline which studies the factors that influence individual behavior as well as the reasons for the gap between individuals’ actions and intentions (EESC, 2017, p. C75/29). Behavioral insights could help governments successfully tackle urgent economic, social and environmental challenges and wicked policy problems (e.g., energy, food and geopolitical crisis because of the ongoing war in Ukraine).

The title of this dissertation pertains mainly to the broad field of behavioral science, an umbrella label for disciplines that study the way that human behavior affects

[1] American spelling is used throughout this paper unless authors who use British spelling are quoted. Citations are cited in the original spelling.

personal thoughts, decisions, choices and actions. Therefore, the title is inherently multifaceted and interdisciplinary as it falls under the following traditional and new (sub)disciplines and fields of science:

- Decision, Marketing & Management Sciences (e.g., management, marketing, psychology and statistics)
- Economics
  - Mainstream Behavioral Economics
  - Strands of Behavioral Economics (e.g., Behavioral Finance, Psychological Economics, Experimental Economics, Evolutionary Theory)
  - History of Economic Thought
- (Behavioral) Law and Economics (economic analysis of law)
- Philosophy of Science
- Moral Philosophy
- Cognitive & Brain Sciences (study of the mind including cognitive psychology, neuroeconomics [economics and neuroscience], computation, biology)
- Political Science
  - Political Philosophy
  - Behavioral Public Policy (BPP)
  - Behavioral Public Administration (BPA)

The aim of this dissertation is a) to make a critical appraisal of Thaler and Sunstein's Nudge Theory; and b) to define the merit of said theory, that is the degree to which nudge policies can help citizens lead better lives. Critical appraisal is evaluating the strong and weak points of published work (e.g., theories, studies, journal articles, books) (Crombie, 2022, p. 1). All published work has blemishes so the question is not if there are deficiencies but whether these are likely to be significant.

The period after the 2007-2008 Great Recession was marked by many questions about the role of standard economics. Policymakers and part of the civil society started wondering about the shortcomings of neoclassical economic specialists, who were unable to foresee this crisis, or even to propose practical solutions to get out of it (Servet, 2018). Therefore, the public usefulness of the expertise of these mainstream economists began to be contested by behavioral economists like Richard Thaler, who, together with the legal scholar Cass Sunstein, developed

‘Libertarian Paternalism’, a Third Way, centrist political and philosophical doctrine, which is described in their eponymous book *Nudge* (2008).

In the aftermath of the financial crisis, governments worldwide adopted libertarian paternalistic approaches to remedy social ills, by constructing “shared responsibilities between state and society” (Peeters, 2013, p. 589). To this end, governments sought to mobilize, incentivize, responsibilize, nudge citizens on the state’s terms and view them “as both part of the problem and part of the solution” to diverse public policy problems (Peeters, 2013, pp. 587-588). Behavioral field test interventions gained traction and came into the limelight after January 2020 because of the Coronavirus disease (COVID-19) pandemic burst as they were readily and massively implemented by many governments to increase vaccination and curb the diffusion of the virus. It is uncommon for theories emerging from the academia to have such a noticeable and sweeping impact on policy and practice; therefore, Nudge Theory deserves to be investigated.

The structure of the dissertation is as follows:
In Chapter 1 a summary of Richard Thaler and Cass Sunstein’s Nudge Theory is presented, and the central concepts contained in their book *Nudge* (2008) are described: ‘homo economicus’, ‘choice architecture’, ‘nudge’ and ‘libertarian paternalism’.

In Chapter 2 the main principles and assumptions of behavioral economics are displayed and the question of whether behavioral economics is a new paradigm or scientific revolution in relation to neoclassical economics is examined. Moreover, the behavioral insights approach is described, and it is shown how it is different from nudges. In addition to this, we seek to elucidate the interrelationship between behavioral sciences, behavioral economics, behavioral insights, behavioral public policy, behavioral public administration, and nudges in a neuroliberal or behavioral government framework. Finally, we inquire into how governments around the world strive to incorporate the findings and evidence of behavioral science experiments into all the stages of the policy process, by setting up behavioral insights teams, nudge units or public sector innovation labs under various labels, administrative structures, and tasks, to reach their policy goals.

In Chapter 3 we explain how supranational, intergovernmental, and international institutions as well as national governments have applied behavioral insights to address enduring global societal issues (e.g., global warming, poverty, water scarcity) and bring tangible changes. The cases of the United Kingdom's and the United States' innovative 'nudge units' are presented: their origins, their paths, their organizational structures, their functions and how they put innovation to work to improve public outcomes and respond to emerging challenges.

In Chapter 4 a critical assessment of both the libertarian paternalism philosophy and nudge interventions is made by responding to pertinent questions through the following lens:

- from a political and moral philosophy lens (i.e., Is libertarian paternalism distinct from political liberalism? Is the individuals' freedom of choice preserved in libertarian paternalism?; Are nudges easy and cheap to withstand? Do they preserve individual autonomy? Does libertarian paternalism foster neoliberalism?);
- from an epistemological and methodological lens (i.e., Do people make choices reliably for their benefit? Are public choice architects/nudgers conscientious and well-intended? Is libertarian paternalism inevitable?);
- from a policy effectiveness lens (i.e., Are nudging effects sustained over time after the nudge has been removed? Are there any limitations to the transformative power of nudges? Does transparency and awareness of nudges influence their effectiveness?).

CHAPTER 1

THE NUDGE THEORY: AN OVERVIEW

> "*Surveillance capitalism commandeered the wonders of the digital world to meet our needs for effective life, promising the magic of unlimited information and a thousand ways to anticipate our needs and ease the complexities of our harried lives […] thanks to surveillance capitalism the resources for effective life that we seek in the digital realm now come encumbered with a new breed of menace. Under this new regime, the precise moment at which our needs are met is also the precise moment at which our lives are plundered for behavioral data, and all for the sake of others' gain. The result is a perverse amalgam of empowerment inextricably layered with diminishment*." (Zuboff, 2019)

1.1 Introduction

Richard Thaler[2] and Cass Sunstein's[3] best-selling book entitled *Nudge: Improving Decisions About Health, Wealth and Happiness*, came out on April 8, 2008, at a critical juncture for the world economy.[4] The 2007-2008 financial crisis, triggered by the US sub-prime mortgage crisis and the ensuing credit crunch, eventually led to the deepest recession the world has experienced since the Great Depression of the 1930s (Clark, 2016; Johnstone *et al*., 2019). Thaler and Sunstein's book, given the juncture, published five months before the Lehman Brothers' bankruptcy, could be regarded as an alarm for the mainstream neoclassical theory of perfectly efficient financial markets, rather than being an analysis that reflects the real world. It constitutes an ideal, utopian model of the market's workings, incapable of interpreting and explaining the financial meltdown.

Thaler and Sunstein's analysis has been developed on the basis of the notion of 'Libertarian Paternalism' (henceforth LP): the very idea that institutions should affect and shape individuals' behavior and choices in a way that improves people's well-being. Actually, the origination of the concept of LP can be traced back to Sunstein and Thaler's two sequential seminal articles, namely "Libertarian Paternalism Is Not an Oxymoron" (Sunstein & Thaler, 2003) and "Libertarian Paternalism" (Thaler & Sunstein, 2003), where the authors suggest an innovative institutional proposal, i.e., LP, to public regulation. LP both as a notion and as a policy proposal commits to

[2] Richard Thaler is the Charles R. Walgreen Distinguished Service Professor of Behavioral Science and Economics at the University of Chicago Booth School of Business.
[3] Cass R. Sunstein is currently the Robert Walmsley University Professor at Harvard Law School. He is the founder and director of the Program on Behavioral Economics and Public Policy at Harvard Law School.
[4] Critical junctures are short periods of institutional changes, which punctuate "relatively long periods of path-dependent institutional stability and reproduction" (Capoccia & Kelemen, 2007, p. 341).

addressing both societal and individual inefficiencies seeking to enhance citizens' welfare without jeopardizing their freedom and autonomy. Thaler and Sunstein's book contains novel LP policy recommendations that fit well in the turbulent period of the financial meltdown. The book came out right on time as 'manna from heaven' for policymakers in liberal democracy countries who were under tremendous pressure to legitimize their veiled neoliberal austerity policies from that moment forth: decrease public fiscal debts, lessen the size and role of the state while enhancing the voluntary sector and accommodate the need to bargain ideological positions admissible to both the Left (liberal) and Right (conservative) parties (Hayton & McEnhill, 2014, p. 101). Thaler and Sunstein (2008, p. 252) propose a 'real Third Way', "a viable middle ground", one that will allow governments to successfully deal with the unruly, 'wicked' policy problems (Rittel & Webber, 1973, p. 155), marked by differences in values and perspectives and improved through stakeholder engagement (Head, 2022, p. 25).

The authors start their analysis with a highly cited fictional scenario, that aims to introduce the readers into the authors' concepts and rationale. Carolyn, the food service director for a big city school system, and her friend Adam, a management consultant, inspired by marketing studies which emphasized the influence of the merchandize arrangement on the shelves of supermarkets and large retail stores on sales, decided to conduct some experiments in her schools to ascertain whether the way the food is arranged on shelves might impact on the kids' choices. She instructed the managers of dozens of school cafeterias on presenting healthy and unhealthy food choices, without modifying their menus. The arrangement of the food items differed from one school to another (i.e., different food items were placed first, last and at eye level).[5] Carlolyn's assumption that choices can be largely shaped by small contextual changes was corroborated as she managed to raise or reduce the consumption of numerous food items by as much as 25 per cent (Thaler & Sunstein, 2008, p. 1). Thus, Carolyn can be labeled as a *choice architect*. Choice architects are in charge of (re)arranging the context where people make decisions smartly. Many people become choice architects, most without being aware of it. For instance, if you are a gym manager and you set up weekly workout schedules, then you are a choice architect. Arguably, the example mentioned above illustrates and stresses from the

[5] Retail experts split shelf space in four vertical zones, one of which is eye level (4-5 ft) (Ebster & Garaus, 2015, p. 25). Mobile eye-tracking studies have shown that shoppers "signs, products, and other objects in the store that are located far above or far below eye level are very likely to go unnoticed." (Hendrickson & Ailawadi, 2014, p. 61). A marketing adage goes like this "Eye level is buy level", which reveals the importance of consumer attention (Wilkie, 1994, p. 220).

outset the authors' core idea that choice architects, with even minimum, trivial daily changes can considerably shape people's behavior, in a way that may make them better off.

In what follows, the main concepts in Thaler and Sunstein's book *Nudge* and their two articles mentioned above are presented: 'homo economicus', 'choice architecture', 'nudge' and 'libertarian paternalism'.

1.2 Homo economicus (Econs) vs. Homo sapiens (Humans)

The term 'econs' (*homo economicus*) and 'humans' are two significant concepts upon which Thaler and Sunstein build their whole theoretical edifice. The above terms are not included in Sunstein and Thaler's texts (2003). In Thaler and Sunstein's book (2008), the term 'econs' appears thirty-six times, the term 'homo economicus' appears three times and its synonym 'economic man' once while the term 'humans' appears fifty-six times.

Thaler and Sunstein right at the beginning of the book strive to dispel the fallacy that "many people seem at least implicitly committed to the idea of homo economicus, or economic man – the notion that each of us thinks and chooses unfailingly well, and thus fits in within the textbook picture of human beings offered by economists" (Thaler & Sunstein, 2008, p. 6). This is a critical assertion because it allows the readers to comprehend better the nudging agenda, which is the book's core idea. The authors argue that 'homo economicus' is a myth and does not exist in the real world. They claim that most people are strongly influenced by the deceitful information contained in textbook economic theories and the dominant discourse of neoclassical economists. It is mistakenly assumed that each of us is a fully rational human being (rational economic man), with perfect knowledge, information and memory and self-control, who always performs a cost-benefit analysis before making an optimal choice or decision to pursue subjectively determined ends, who never errs, who makes intertemporally consistent choices, the ultimate goal being the maximization of their individual self-interest and utility as a consumer and profit as a producer. The 'homo economicus' traditional neoclassical economics model is the core concept of the rational choice theory which originates from the eighteenth-century Scottish political economist Adam Smith who sought to understand how

people come to make (economic) decisions. The rational choice theory has only recently started to be contested by behavioral economists.

As the authors put it “To qualify as Econs, people are not required to make perfect forecasts (that would require omniscience), but they are required to make unbiased forecasts. That is, the forecasts can be wrong, but they can’t be systematically wrong in a predictable direction. Unlike Econs, Humans predictably err” (Thaler & Sunstein, 2008, p. 7). The authors seek to pinpoint one basic difference between Econs and Humans (i.e., real-world, not fictional people). Econs are only allowed to make unbiased forecasts, that is to say they should always ensure that they use methods which are free from any human bias, and when forecasts fail, this will not be accounted for by systematic errors, that is errors which consistently change in the same direction. Humans, on the other hand, have unavoidably a strong influence on the outcome of a forecast, because they suffer from cognitive biases and limitations and are easily influenced by social norms and emotions. This means that the wiring of the human brain is responsible for the systematic and predictable errors that real-world people make, and it impedes them from making rational decisions and choices; thus, they are predictably irrational, and their behavior is easy to predict.

“Econs respond primarily to incentives. […] Humans respond to incentives too, but they are also influenced by nudges.” (Thaler & Sunstein, 2008, p. 8). The authors underline here another major discrepancy between Econs and Humans. Econs are thought to be rational actors with consistent preferences, who do not allow to be influenced in their decisions by third party behaviorally informed interventions because they know that the calculated choices that they make are assuredly in their best interest. However, Humans are prone to nudges, that is they can tolerate the effect that a subtle intervention might have on their behavior. This is because sometimes “people choose not to choose [and] want other people to choose for them” (Sunstein, 2014a, p. 1).

“Econs […] are pretty unsociable creatures. They communicate with each other if they can gain something from the encounter, they care about their reputations, and they will learn from others if actual information can be obtained, but Econs are not followers of fashion. […] Humans, on the other hand, are frequently nudged by other Humans.” (Thaler & Sunstein, 2008, p. 53). “Humans are easily nudged [because] we

like to conform." (p. 55). Econs are thought to be reclusive, solitary, emotionless creatures, who behave in a considerate, lucid way and who are not affected by the herd mentality as they do not like following the herd, doing what most other people do. They only interact with others if they expect to gain valuable information from this social or business interaction, which they will use to maximize their utility. At the same time, they make efforts to build, maintain and protect their reputations, and adjust their behavior to be and appear moral, thus calculating future benefits. Humans, on the contrary, like social proof and conformity, and when they are unsure about what action to take, they turn to similar others who influence them to do something they would not otherwise do (peer pressure). This means that real-world people, unlike the economic man, may change their behavior at any time to fit in with the people around them, who might be experts, more knowledgeable and more experienced (i.e., authorities) than they are, which might be helpful and enlightening.

Thaler and Sunstein pinpoint the inherent contradiction of human beings whose acts and behavior can be rational and irrational at the same time and wonder "[h]ow can people be simultaneously so smart and so dumb" (2008, p. 19). Although humankind has always been able to achieve ingenuous things, like traveling to the moon, creating the internet, inventing the wheel and the light bulb, manufacturing vaccines to combat diseases and pandemics, real world humans are remarkably unable to predict correctly and decide which choice is the optimal one for them. Thaler and Sunstein explain this stark contradiction, referring to:

a) Tversky & Kahneman[6] (1974), who identified three heuristics: 'anchoring', 'availability', and 'representativeness', which can result in systematic biases (Thaler & Sunstein, 2008, pp. 23-31) and

b) Kahneman & Tversky's (1979) *Prospect Theory*, an alternative theory of choice to the dominant theory of expected utility, summarized in the expression "losses loom larger than gains" (p. 279) and the term 'loss aversion', which "operates as a kind of cognitive nudge, pressing us not to make changes, even when changes are very much in our interests" (Thaler & Sunstein, 2008, p. 34) and explains phenomena like 'status quo bias' or endowment effect.

Thaler and Sunstein (pp. 19, 33), drawing on Kahneman's (2002; 2003, p. 698) two types of cognitive processes, argue that the aforementioned heuristics and biases

[6] His empirical findings question the dominant assumption of human rationality in modern economics.

result from the interaction between two different cognitive systems underlying reasoning, “the Automatic System and the Reflective System” which coexist in the human brain, “two kinds of thinking, one that is intuitive and automatic, and another that is reflective and rational”. This assertion is based on psychology and cognitive neuroscience evidence, encapsulated in ‘the dual process theory of thought’ (Sloman, 1996; Kahneman & Frederick, 2005; Evans, 2003). The Automatic System or System 1 is impulsive, quick, unconscious, associative, instinctive, uncontrolled, effortless, often emotional, and affective (Kahneman, 2003, p. 698). It processes automatic activities (e.g., detecting that one object is more distant than another, driving a car on an empty road). On the contrary, the Reflective System or System 2 is more deliberative, more calculative, slower, deductive, conscious, controlled, flexible, effortful, and less intuitive (ibid.). It processes activities requiring attention (e.g., filling a tax or choosing a pension scheme). The two thought systems are separate but linked, which means that fast and slow thinking happen simultaneously or consecutively, and they reach different results, even though they are provided with the same inputs. Nevertheless, “ill-considered or improvident decisions” with long-term harmful effects are usually caused by individuals who automatically, by default, use the automatic system and decide “in the heat of the moment” (Thaler & Sunstein, 2008, p. 250) instead of using the reflective system, which allows individuals to think more deeply about their situation and make better informed, sound decisions (‘hot-cold empathy gap’).

In the light of the above, Thaler and Sunstein doubt the rationality of real-world people’s decisions because too often their ability to judge is characterized by a fundamental weakness, imperfection or bias and their decisions prove not to be in their own best interest in the long term. This is crucial when we consider that people are often asked to take critical decisions for their lives and select choices about important issues such as social security, pension plans, savings, and healthcare. Thaler & Sunstein (2008, p. 42) propose nudges as a way to assist farsighted, determined “Planners” and myopic, impetuous “Doers” to get out of the inertia they are stuck in and correct these flawed decisions and biased judgments so that they can improve their health, their wealth and their happiness.

1.3 The concept of Choice Architecture

The concept of ‘choice architecture’ has been known under different names since the 1990s in the fields of computer engineering and marketing. The terms ‘choice architecture’ and ‘choice architect(s)’ appeared for the first time in Thaler & Sunstein’s book (2008) (sixty-five times and forty-four times respectively). These terms are the backbone of their nudge theory. Actually, the word ‘choice architect’ - used nineteen times in Sunstein & Thaler’s article (2003), is a synonym for the word ‘planner’ (private or public) understood as “anyone who faces the job of designing institutional features such as rules, procedures, information packages, and the like” (2003, p. 1162, footnote 14).

“A choice architect has the responsibility for organizing the context in which people make decisions” […] Choice architects can make major improvements to the lives of others by designing user-friendly environments. […] To produce a user-friendly design, the architect needs to understand how to help Humans.” (Thaler & Sunstein, 2008, pp. 3, 11, 174). ‘Choice architecture’ is understood as design with intent, purposeful shaping or “the background against which choices are made” (Sunstein, 2014b, p. 14). Private and public choice architects, having studied how the human brain works, seek to design convenient, intelligible and practical settings to help people make better choices and improve their lives significantly. The ultimate goal of uncomplicated, easy-to-use, smart ‘choice architecture’ is to minimize humans’ predictable biases and errors that result from bounded rationality, by ‘nudging’, gently pushing consumers and citizens towards personal and social decisions that are beneficial to them without limiting their choices. The authors admit that “[i]n offering supposedly helpful nudges, choice architects may have their own agendas” (Thaler & Sunstein, 2008, pp. 239), illicit ends and may advance evil and bad nudges. That is why nudgers, private and public choice architects, should always consider two guiding principles, transparency and publicity of the nudges (pp. 244-245). This will ensure an ethical choice design, promoting human autonomy, welfare and dignity, while respecting heterogeneity and nudgees’ freedom of choice.

“Choice architecture and its effects cannot be avoided” […] It is not possible to avoid choice architecture, and in that sense it is not possible to avoid influencing people.” (Thaler & Sunstein, 2008, pp. 72, 247). The unavoidability of choice architecture and influence is an axiom, a premise on which Thaler and Sunstein construct their

nudging philosophy. Choice architecture influences to a large extent the outcomes of choices we make, whether or not we realize it and it can be conclusive as it effectually makes numerous decisions on our behalf, and it influences many others, by pushing as subtly us in one direction or another (Sunstein, 2014b, p. 14). A benevolent design with predictable consequences is preferable to a random design, which also influences people with unpredictable consequences. Each person is entitled to make decisions and has choices about how he/she lives his/her life. Having a life without choices is meaningless and dull. Decisions are not taken in a vacuum. People cannot make choice architecture to stop or disappear as it is inexorably linked with human life and the environment in which we live. We all become choice architects in our own lives and in the lives of those around us. Simply put, we all occasionally produce nudges that trigger those around us to act in a specific way. As a public administrator, parent or teacher you are invariably a choice architect for those under your supervision. The social environment affects choices, and we cannot do without a social environment (Sunstein, 2014b, p. 118). Without a social background with readily available choices about complex or boring issues, our autonomy and freedom would disappear because we would have much less time to plot our course (Sunstein, 2014b, p. 131). Choice architecture is also necessary to compensate for behavioral market failures derived from the human proneness to make mistakes (Sunstein, 2014b, p. 16).

“Attention to choice architecture has become increasingly important over the years because plans have greatly increased the number of options they offer, making it even harder for people to choose well.” (Thaler & Sunstein, 2008, p. 129). Choice architecture is omnipresent and pervasive in everyday life. The world around us is becoming increasingly complex and there is a growing number of options available from which to choose, which makes decision-making more and more difficult. This situation should be reflected in the design of sound and thoughtful choice architecture. People are involuntarily subject to a series of frames of choice, which present them with different alternatives with noticed and unnoticed features, and they are asked to make incessantly optimal crucial decisions about their lives, their health, their work, their property, their savings, their investment, or their well-being.

“When choice is complicated and difficult, people might greatly appreciate a sensible default.” (Thaler & Sunstein, 2008, p. 87). Humans need to be nudged almost all the

time because they have limited time, attention and information and are overwhelmed by biases and heuristics which hinder them from making the best possible decisions, by their own standards. Nudging enables them to navigate the maze-like choice structure of the modern world. Every decision has its own consequences which people cannot avoid, so a wrong decision at a specific time of an individual's life cycle may have detrimental and irreversible impacts on their lives, their happiness, their health and their wealth. In any situation, the choice architect has to decide what happens in a system if the user does nothing because of status-quo bias or uncertainty in decision-making. This is where they introduce the default option (pre-set course of action) in the form of opt-in (choose to join or permit something) and opt-out (choose not to participate in something), which requires no effort by the user, and which begins to produce results if nothing is specified by the user.

"Public-spirited choice architects […] know that it's good to nudge people in directions that they might not have specifically chosen in advance. Structuring choice sometimes means helping people to learn, so they can later make better choices on their own." (Thaler & Sunstein, 2008, p. 97). It would be wise when policymakers and economists as choice architecture experts or 'nudgers' design a policy intervention or opportunities in a specific policy area that they take into account the findings of research in behavioral economics, social and cognitive psychology and neuroscience to grasp the actual economic life and the human economic behavior in the real world. This will allow them to develop a choice structure with good alternatives or default rules. This structure will encourage people to explore these alternatives and go on with particular options that they would have never selected beforehand or that are completely new to them. Given that people have specific options to choose from, they are required to experiment themselves, reflect, bargain the benefits and costs of each alternative, understand their true preferences and pick the option that they believe is appropriate for them, as judged by the people themselves. This is a learning process which allows people to accumulate knowledge gradually, broaden their horizons and facilitates in improving their decision-making ability.

1.4 The concept of Nudge

The term 'nudge' was first formulated by the philosopher and scientist James Wilk (1999) in the field of cybernetics. However, it was coined and popularized in Thaler & Sunstein's book *Nudge* (2008). The book title was inspired by the mother elephant

who nudges, gently pushes her baby with her trunk to make it walk (see Figure 1). Nudge is a simplified term for soft paternalistic interventions aiming to change individual behavior towards a particular advantageous course of action, cited in Sunstein & Thaler's scientific articles on LP, published in 2003. Nudging is one type of application of the science of behavioral economics in various policy areas, like mortgage markets, pension schemes, environmental protection, and family law, which seeks to explain why we make irrational decisions and remedy this flaw.

Figure 1. Part of the book cover of Thaler and Sunstein's *Nudge* (2008 edition)

Nudges should be viewed as the original and creative contribution of LP (the overarching normative policy program) into public policymaking (Schubert, 2015, p. 5).

Thaler and Sunstein provide two definitions for 'nudge", which complement one another:

1. "A nudge […] is any aspect of the choice architecture that alters people's behavior in a predictable way without forbidding any options or significantly changing their economic incentives." (Thaler & Sunstein, 2008, p. 6). Here, 'nudge' means "an intervention that interferes with the choice conditions minimally" (Mongin & Kozic, 2018, p. 108)

2. "In accordance with *our definition*, a nudge is any factor that significantly alters the behavior of Humans, even though it would be ignored by Econs." (Thaler & Sunstein, 2008, p. 8, our emphasis). Here, 'nudge' is understood as "an intervention that uses rationality failures instrumentally' (idem).

The authors also suggest a third definition, which links the other two: “a welfare-promoting intervention that tries to reduce the negative effects of rationality failures”. This distinction is hardly made in nudging literature.

Mongin & Kozic (2018, pp. 108-109) underline that ‘nudge’ is an inherently ambiguous idea, a semantically heterogeneous and manifold concept, which has diffused chaotically in behavioral economics and policy research. Nudging is used intensely by behavioral economists and policy scholars for various government interventions, bundled under the same umbrella label, along with definitions and terms which are most of the times arbitrary, a far cry from the standard scholarship. This is exacerbated by the authors’ deliberately intrinsic semantic looseness, vagueness and obscurity of the critical concepts of the LP political theory.

The concept of ‘nudge’ is inextricably associated with the other core concepts of the book: LP and choice architecture. Nudge is a behavioral science technique, used by the public and private sector agents in the framework of LP, to alter noticeably real human behavior into preferred, wise courses of action. Thaler and Sunstein think that nudges are necessary in our lives in this complex world we live in because they help people, who commit systematic mistakes due to their cognitive restrictions, lack of self-control or inertia, to make choices that make them subjectively better off when they face difficult and rare decisions. Nudges are small design changes that influence individual behavior by altering the ‘architecture’ of the context in which people act. A nudge is a behavioral policy intervention in the psychological, social and economic environment (choice architecture), which is intelligently designed to urge a decision-maker without coercion to select the option that someone else wants them to select in a desirable direction while maintaining their freedom of choice and without considerably altering their monetary motivations. A nudge is not a mandate, and no one must adhere to it. You either accept the nudging or ignore it. So, the authors indirectly presume that the decision-makers have apparent preferences that cannot be swayed by the nudge and/or that the decision-makers are involved in a cogitation process to select the course of action to follow.

Bovens (2009, p. 209) argues that social advertisement (or social marketing) as a form of government intervention or campaign which is used to influence our behavior and our emotions toward social ills (e.g., drug abuse, alcohol abuse, domestic

violence) can be a form of nudge, but that not all social advertisement is a nudge. In Table 1 we can see the similarities and differences between social advertisement and nudges.

Table 1. Similarities and differences between social advertisement and nudge

Author's elaboration

Features	Social advertisement	Nudge
The aim is to increase social welfare	Yes	Yes
It is costly	Yes	No
Psychological mechanisms and patterns of irrationality are exploited	No	Yes
It affects the actual choice situation	No	Yes
The intended effect is autonomous decision-making	Yes	No
Is the publicity principle applied? (i.e., Are people exposed to social advertisement or nudge informed of this?)	Yes	No

1.4.1 A typology of nudges

The first distinction of nudges is based on the latent architectural procedure through which they are planned to work: a) *setting defaults and anchors* (e.g., automatic tax returns, already filled in with default information) (Thaler & Sunstein, 2008, p. 230); b) *physical architecture* (e.g., no-bite nail polish and disulfiram, p. 234); c) *deliberation tools* (e.g., cooling-off periods following certain kinds of transactions, p. 250).

The second distinction is based on the degree of transparency of the nudge. Hansen & Jespersen (2013) differentiate between transparent and nontransparent nudges, that is to say whether the person being nudged realizes that they are nudged while Felsen *et al*. (2013) make a comparable distinction between overt (obvious) and conscious versus covert (concealed) and subconscious nudges.

Another classification concentrates on the cognitive mechanisms by which nudges function, that is to say, which System of the dichotomous human brain nudges target. 'Type 1' nudges, which aim at System 1 (Automatic), and therefore, skip cognitive deliberation, and 'Type 2' nudges, which aim at System 2 (Reflective), and consequently activate deliberative processing (Hansen & Jensen, 2013; Sunstein, 2016). Thaler & Sunstein's nudge theory seeks to encapsulate implicitly the seemingly rival concepts of negative political freedom or liberty and positive political freedom or liberty as they derive from different political philosophy traditions (e.g.,

Lockean vs. Kantian). The British philosopher Isaiah Berlin (1969, pp. 16, 23) defined 'negative freedom' as "the area within which a man can act unobstructed by others […] the freedom which consists in not being prevented from choosing as I do by other men" while 'positive freedom' refers to "the wish on the part of the individual to be his own master […] to depend on [himself], not on external forces of whatever kind" (Berlin, 1969, pp. 22-23). In the light of the above, we could say that Type 1 nudges (mostly non-educative nudges such as default rules), which target System 1 of the human brain and automatic processing, are more likely to be associated with negative freedom of the individual as what matters is the quantity, the variety of the choices and not their quality. Type 1 nudges focus on preserving the individual's freedom to choose and not on what to choose and do not necessarily increase individual agency (Sunstein, 2016, 125).

On the contrary, Type 2 nudges (mostly educative nudges such as disclosure requirements, reminders, and warnings), which target System 2 of the human brain, are more likely to be associated with positive freedom, as they involve deliberative processing and "they show greater respect for individual autonomy and dignity and promote individual agency" (Sunstein, 2016, p. 123) (see Figure 2).

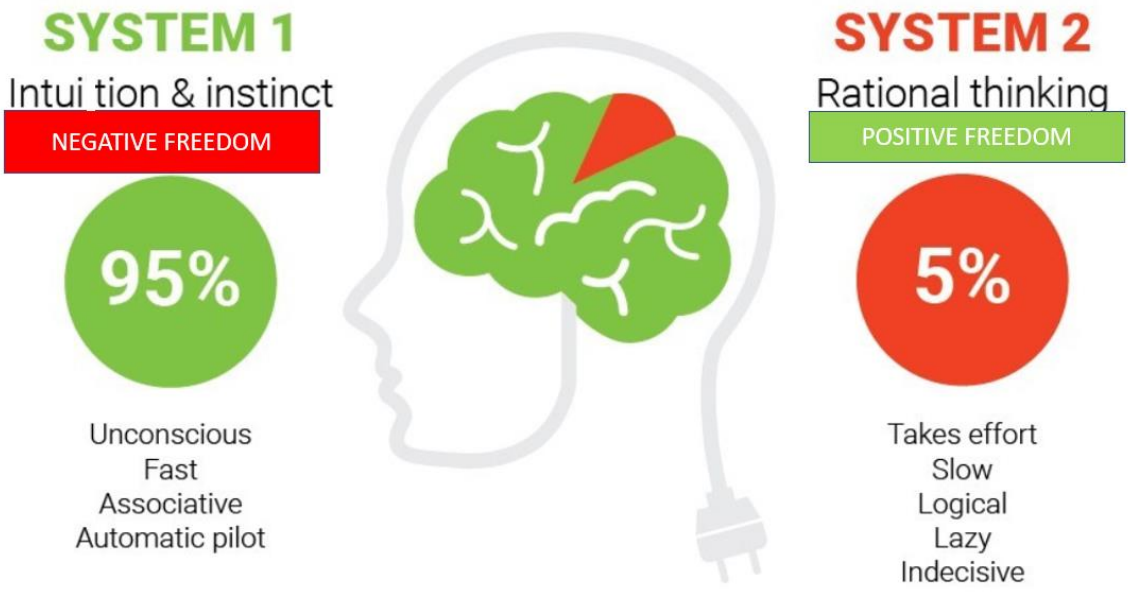

Figure 2. Kahneman's Dual System of Thinking
Source: Adopted from https://fbs.eu/img/articles/26041/1596465028-005bdd79d7b1c481642fae35d940b974_1200x1200_q90v3.jpg

In addition to this, depending on who benefits or who should benefit from the nudge, that is to say the target of the nudge, there are three types of nudges: a) nudges that benefit the nudged individual (pro-self nudges); b) nudges that benefit the society

(pro-social nudges); c) nudges that mainly, not solely, benefit the nudgers (Hagman *et al*., 2015; Congiu & Moscati, 2022, p. 195). Van Aaken (2019, p. 305) makes a similar distinction between a 'paternalistic' nudge, whose intended goal is the well-being of the individual aimed at by the nudge intervention (e.g., nudges concerning drinking, smoking) and a 'non-paternalistic' nudge, which is directed to "third-party externalities or the public good" (e.g., nudge to pay taxes).

Baldwin (2014, pp. 835-837) identifies three degrees of nudge, depending on the degree to which they affect the autonomy of individuals as decision-makers, regardless of the specific nudging tool used. First Degree Nudges (e.g., supply of simple information or a reminder) respect the individual's autonomy and reinforce the target's rationality. Second Degree Nudges (e.g., default rule with an opt-out) steer decisions in a preferred direction exploiting volitional restrictions (e.g., human inertia). Third Degree Nudges (e.g., framing strategies) shape preferences but impede target's reflection. Siemer (2022) distinguishes between nudges which are transparent (obvious) to the individual (e.g., social proof, removing friction) or non-transparent (hidden from the individual) (e.g., framing or priming). Although some non-transparent nudges could be regarded as manipulative, the fact that a nudge is disguised does not mean that it is intrinsically harmful.

In the light of the above, it is evident that a nudge can fall under more than one type simultaneously. For instance, pre-filled Income Tax Self-Assessment forms is a Type 1, Second Degree, transparent nudge setting a default option that benefits both the nudged individual and the nudger.

Sunstein (2014c, pp. 585-587) identifies the ten most important forms of nudges for purposes of public policy:

1) Default rules (e.g., automatic registration in schemes)
2) Simplification (e.g., reduce the complexity of existing schemes)
3) Use of social norms (e.g., inform people that most people adopt a specific behavior)
4) Increases in ease and convenience (e.g., making low-cost or zero-cost choices more salient and opportune by removing the obstacles that add to the ambiguity of choices)

5) Disclosure (more thorough dissemination of information might be provided online for those that are interested)
6) Warnings, graphics (e.g., private or public warnings to draw people's attention)
7) Precommitment strategies (by which people bind to a specific course of action)
8) Reminders and 'prompted choice' (by which people are not asked to choose but whether they wish to choose)
9) Eliciting implementation intentions (it is more probable that people participate in an activity if someone evokes their future intentions)
10) Informing people of the nature and consequences of their own past choices, which they often do not remember or do not have access to.

Schubert (2015, p. 5) pinpoints that the list of nudges, qualified as such by Thaler and Sunstein, is so broad that it includes some forms which are intrinsically and ethically unoriginal, such as the provision or disclosure of factual information (e.g., calorie information labeled on menus and packaged foods).

1.4.2 Characteristics of nudges

The nudge must be "easy for people to go their own way […] To count as a mere nudge, the intervention must be easy and cheap to avoid." (Thaler & Sunstein, 2008, pp. 5-6). A nudge should be easy and inexpensive to resist, that is to say it should involve minimum difficulty or effort with near zero or the least possible cost for people who are affected by the nudge and who want to avoid it. Nudges contrast sharply with traditional policy instruments, which modify behavior with mandates or bans or through financial incentives (including significant subsidies or fines). Nudges should simplify complicated procedures so that benefits become more easily accessible.

"By properly deploying both incentives and nudges, we can improve our ability to improve people's lives, and help solve many of society's major problems." (Thaler & Sunstein, 2008, p. 8). Thaler and Sunstein think that if nudges and incentives, understood as inducements, are suitably utilized by public and private sector agents, we can advance human welfare and contribute to resolving the most critical societal problems. Nevertheless, they know that "nudge is part of the solution to almost any problem but is not the solution to any problem" (Thaler in Nesterak, 2021). The authors disapprove of policies based on direct economic incentives and suggest nudges as a politically acceptable idea which offends nobody as we ultimately make

decisions ourselves without our freedom of choice being restricted by the choice architect.

"There is […] no way of avoiding nudging in some direction, and whether intended or not, these nudges will affect what people choose." (Thaler & Sunstein, 2008, p. 10). Nature itself, the weather, the customs and traditions, the government inevitably nudge us and often influence our behavior and our choices (Sunstein, 2015, p. 421). It is a misapprehension that it is possible to keep away from swaying other people's choices because "some kind of social environment (or "social architecture") […] is always in place." (Sunstein, 2014c, p. 584). So, nudges, either inadvertent or deliberate, cannot be avoided because they are an integral part of our life.

"[N]udge is any factor that significantly alters the behavior of Humans, even though it would be ignored by Econs." (Thaler & Sunstein, 2008, p. 8). The nudging theory is based on the idea that humans (real-world people), unlike Rational Economic Man ('homo economicus') who compares the pros and cons of an option and makes their decision, have bounded rationality and cognitive biases, unstable preferences over time, inadequate knowledge or information, no willpower and are idle so someone has to nudge them so that they (re)act and come out of the persistent hibernation. Nudge, a component of choice architecture, aims at helping error-prone, irrational people make better choices for themselves without depriving them of the right to choose. The presence or absence of other options does not determine preference between options. Therefore, the rational decision makers (Econs) have a comprehensive preference order of all options and given a specific choice architecture, they always choose the option with the highest weighted sum to maximize their expected utility, ignoring the context and the 'independent irrelevant alternatives' which are not intended to be desirable options (Tversky & Simonson, 1993, p. 1179). Conversely, given a particular set of options, human decision-makers shape their preferences at the very moment of choice, which means that their preferences are context-dependent, determined irrationally by alternatives which should be irrelevant. As Sunstein & Thaler (2003, p. 1161) put it "people lack clear, stable, or well-ordered preferences [and] [w]hat they choose is strongly influenced by […] contextual influences [which] render the very meaning of the term 'preferences' unclear". This is due to 'endogenous preferences' and 'anomalies of preferences' (Kahneman & Tversky, 1979, p. 275), which breach the standard choice theory and

deviate from the rational choice theory. Thus, context or choice architecture makes a compelling subconscious impact on most decisions, often pushing people to choose options that thwart their ends. Thaler & Sunstein incite choice architects to design backgrounds to rectify these incoherent preferences to divulge the covert, true, coherent preferences, raising at the same time the probability of good decisions, that is the decisions that paternalists want people to make, if "true 'preferences do not formally exist" (Sunstein & Thaler, 2003, p. 1164). Choice architecture does not prevent people from getting what they want, because what people want depends on how the options are arranged. The authors implicitly admit that "individuals would be better off if they chose as the *Homo economicus* would choose" (Lecouteux, 2016).

"In the face of behavioral market failures, nudges are usually the best response, at least when there is no harm to others. […] offer nudges that are most likely to help and least likely to inflict harm" (Sunstein, 2014b, p. 17, 72). Nudges seem to be a suitable policy tool when policymakers are confronted with behavioral market failures, like the 2007-2008 financial crisis. In that case, behavioral market failures spread the neoclassical market failures, which included wrong decision-making by the investors. These failures occurred as a result of human frailty and human tendency toward error. For example, US high-risk consumers with low incomes or impaired credit histories, who wanted to satisfy their dream of owning a house in the early 2000s, made the most of the credit laxity, due to the significantly reduced federal funds rate, and were granted subprime mortgages by the banks to buy houses that they could not afford. This resulted in an extensive housing bubble some years later which brought about the subsequent recession. Borrowers' decision to buy houses beyond their means was due to various cognitive biases we have as humans (Thaler & Sunstein, 2008, p. 31), such as bounded rationality, "temptation and mindlessness" (p. 41), lack of self-control (p. 42) and herd behavior (pp. 53-71), which generate noetic transaction costs. These costs beget bad decisions that lessen individual welfare.

1.5 The notion of Libertarian Paternalism

The use of nudge is justified by the political philosophy concept of LP, which is defined as "an approach that preserves freedom of choice but that authorizes both private and public institutions to steer people in directions that will promote their welfare." (Thaler & Sunstein, 2003, p. 179). Although this seems to be an axiomatic

definition as it is suggested by the founders of this political philosophy project, it seems a narrow one as it does not cover all the aspects of the concept. Rebonato (2012, p. 6; Rebonato, 2014, p. 359) provides a more inclusive definition, which contains the two logical components of LP: its engineering and its justification:

> "Libertarian paternalism is the set of interventions aimed at overcoming the unavoidable cognitive biases and decisional inadequacies of an individual by exploiting them in such a way as to influence her decisions (in an easily reversible manner) towards choices that she herself would make if she had at her disposal unlimited time and information, and the analytic abilities of a rational decision-maker (more precisely, of *Homo Economicus*)."

The concept of LP elaborates the accrued findings of behavioral economics[7] and cognitive and social psychology, which demonstrate that people repeatedly make wrong, irrational decisions and choices that are not best for them, and that they do so because as humans, unlike econs, they are heavily influenced by the way choices are presented to them. This evidence shows that choice architecture dramatically impacts on people's choices and decisions. LP intends to capitalize on this for the better and modifies the choice settings, suggesting readily available options, nudging choices in a specific direction and changing individuals' short-term preferences, to help them make choices that are generally considered best by them.

Thaler and Sunstein market LP as 'the Real Third Way', which calls for a Rawlsian 'overlapping consensus' in a well-ordered, pluralistic society, "when individuals who adhere to different comprehensive doctrines can nonetheless agree on a political conception of justice for evaluating the shared basic institutional structure of their society." (Martin, 2015, p. 588). That is probably the reason why LP is so appealing to both left and right at the same time (see Figure 3): the left selects the paternalistic component and the idea that it is rightful to give incentives to certain forms of behavior and penalize other forms, while the right selects the libertarian component, which focuses on the freedom of choice (King, 2009, p. 727).

[7] Richard Thaler has been a pioneer in behavioral economics. His groundbreaking article on a positive theory of consumer choice (1980) investigates how human traits influence individual decision-making and market outcomes. He used Kahneman & Tversky's prospect theory to formulate an alternative descriptive theory on how consumers should choose.

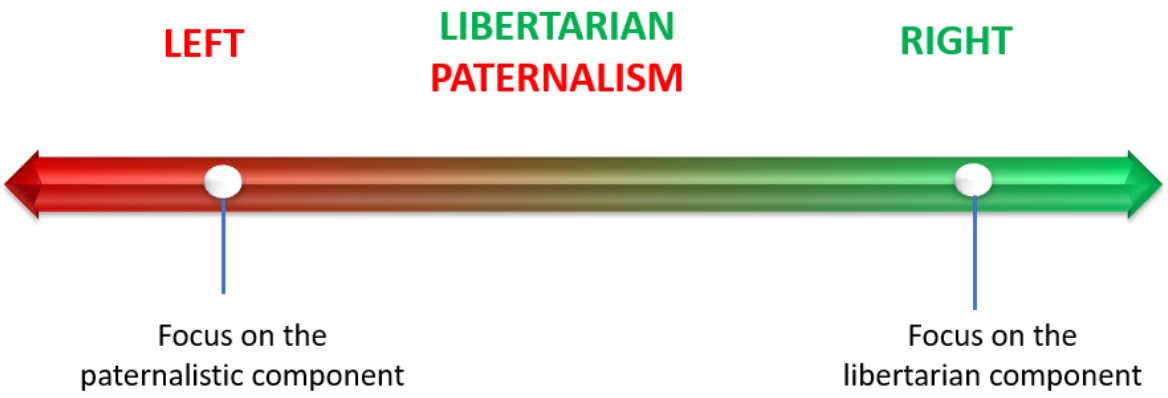

Figure 3. The Real Middle Way of Libertarian Paternalism

Author's elaboration

Going back to the introductory fictional scenario in Thaler & Sunstein's book, Carolyn's attempt to nudge the kids to choose healthy food items at school cafeterias is an example of LP action because on the one hand, the existing menus or choice sets for kids are maintained, and on the other hand, Carolyn, as a choice architect, directs the kids' attention to food choices that she thinks will improve their well-being. The notion of LP, also known as 'light', 'soft', or 'asymmetric paternalism' (Camerer *et al.*, 2003), presupposes a world with an abundance of choices, a plethora of information, human fallibility and protection of liberty and autonomy. The authors claim that the main justification for the introduction of LP to the private and public arena is that innate human cognitive constraints and biases lead in some cases individuals to make suboptimal or inferior decisions in relation to their well-being, decisions that they would alter if they had with full information, limitless cognitive abilities, enduring self-control, and unwavering willpower (Sunstein & Thaler, 2003, p. 1162).

Thaler and Sunstein seek to emasculate the credos of some doctrinaire anti-paternalists, who hasten to discredit the validity of LP, based on a false belief and two miscomprehensions. The false idea is that "almost all people, almost all of the time, make choices that are in their best interest or at the very least are better than the choices that would be made by someone else." (Thaler & Sunstein, 2008, p. 9). The authors pinpoint that this contention is tautological, true by virtue of its logical form alone, or testable and wrong (Sunstein & Thaler, 2003, p. 1163). Providing that some people are continually unable to make perfect, optimal decisions, in contexts in which they have no experience, poor information and slow or scarce feedback, some

alterations in the choice architecture could improve their decisions and consequently, their lives. Who would object to that anyway?

The first misinterpretation is that there are feasible options for paternalism and that it is possible to stay away from influencing people's choices (Thaler & Sunstein, 2008, p. 10; Sunstein & Thaler, 2003, p. 1164). In many real-life occurrences, a private or public institution as a planner or choice architect must intervene and design a choice set to nudge people to make them better off (healthier, wealthier, happier). The alternatives are uninteresting. So nudging is understood as a kind of non-coercive intervention, paternalistic action that impacts on what people choose and how they behave. Since there is no alternative to choice architecture and nudging in our lives, there is no alternative to paternalism either, to the extent that by its very nature, it unavoidably influences people's choices and outcomes. Therefore, the anti-paternalist stance is disjointed, as "effects on individual choices are often unavoidable" (Sunstein & Thaler, 2003, p. 1182).

The second misunderstanding is that "paternalism always involves coercion" (Sunstein & Thaler, 2003, p. 1165; Thaler & Sunstein, 2008, p. 11). As the school canteen example shows, the choice of the arrangement of food items does not oblige the kids to do anything. Kids maintain their freedom of choice and they can decline the choice architect's preferred options. Once it is made clear that some organizational decisions must be taken, that a form of paternalism is impossible to avoid, and that the other alternatives to paternalism, making people generally worse off (e.g., sick, unhappy, poor), are uninteresting, the authors argue that what we should care about is not whether the state should be paternalistic or not, but what is the best way to choose among the options suggested in the choice set (Sunstein & Thaler, 2003, p. 1166; Thaler & Sunstein, 2003, p. 175).

Sunstein & Thaler (2003, p. 1160) "propose a form of paternalism, libertarian in spirit, that should be acceptable to those who are firmly committed to freedom of choice on the grounds of either autonomy or welfare". The authors advocate a relatively mild and unintrusive form of paternalism because choices are not blockaded or demarcated, which inflicts insignificant costs on those who wish to deviate from the choice architect's favored option (Sunstein & Thaler, 2003, p. 1162). This reduced regulation of choice behavior, since no one is compelled to do anything, should be

justifiable even to the dedicated libertarians, once they realize that paternalism is intrinsic in many choice environments and cannot be avoided (Sunstein & Thaler, 2003, p. 1173). Because preferences are context-dependent, which means they are changeable and susceptible to the way choices are structured, private and public institutions that control choice frames will inescapably mold choosers' preferences. Sometimes it seems that Thaler and Sunstein cannot decide whether some measures adopted could be considered as nudges or not, and that is the reason they often indiscriminately juxtapose hard and soft paternalistic interventions (e.g., energy standards vs. energy labeling requirements, sugar taxes vs. calorie disclosure requirements) (Abdukadirov, 2016, p. 8).

Although the two terms (i.e., libertarianism and paternalism) seem to contradict each other, forming an oxymoron as such (Sunstein & Thaler, 2003, pp. 1159-1160), they do not. For some scholars, LP is neither liberal nor paternalistic; nevertheless, for Thaler and Sunstein the concept of LP represents "a political 'third way' between the laissez-faire of the right and the interventionism of the left" (Whitehead *et al.*, 2018, p. 69). The point is that libertarianism and paternalism can be coalesced to repair the flaws that, for Thaler and Sunstein, are built-in in both (Gane, 2021, p. 121). The authors seek to bridge the gap between libertarianism and paternalism. LP suggests that these two conflicting terms can delineate a non-antithetical and alluring policy alternative. By 'libertarian', the authors mean warranting people's right to choose whenever possible. And by 'paternalism', they mean being concerned about the consequences of decisions for people, as judged by themselves and "that it is legitimate for choice architects to try to influence people's behavior to make their lives longer, healthier, and better." (Thaler & Sunstein, 2008, p. 5). LP aims to devise environments where people are more likely to select things that they think are advantageous to them (Thaler, 2009). LP is only acceptable if it does not restrict freedom of choice and seeks to maximize the individuals' present and future utility, overriding their systematic biases and heuristics. Thus, LP is welfare-oriented and means-related as it is concerned with helping individuals improve or replace the means to achieve ends that are regarded as the individuals' own (Le Grand & New, 2016, p. 29).

On the one hand, paternalism is roughly defined as "the interference with a person's liberty of action justified by reasons referring exclusively to the welfare, good,

happiness, needs, interests or values of the person being coerced". Therefore, it is an unsolicited welfare-improving intervention (Dworkin, 1997, p. 62). Although Dworkin identifies the limitation on liberty as an essential characteristic of paternalism in the aforementioned definition, Quong (2011, p. 75) underscores that there seem to be numerous examples of paternalism that do not entail "a limitation on anyone's liberty". The etymology of *paternalism*, from the Latin *pater* ('father'), reveals the tacit social rankings of patriarchal societies, in which fathers or male heads of families were considered to be power figures in charge of the welfare of subjects. Hard paternalism is thought to infringe on individual freedom of choice and trade-off personal autonomy, which is legitimized by the welfare outcome for the individual (Le Grand & New, 2015, p. 106). Soft paternalism respects individuals' autonomy which must not be sacrificed for well-being rewards, but it claims that it is possible to intercede in others' lives without being involved in such exchanges (Le Grand & New, 2015, p. 105).

On the other hand, "libertarians strongly value individual freedom and see this as justifying strong protections for individual freedom" (van der Vossen, 2019). Raw libertarianism supposes that individuals are sensible and capable of behaving to their own advantage. The term 'libertarian' is inspired by the classical liberal and libertarian ideas of individual rights, free markets and limited government, advocated by Locke, Smith, Jefferson, Hayek, Nozick and Friedman (Boaz, 1997, p. xiv). Nevertheless, what the adjective 'libertarian' means in the book *Nudge* is seeking to assist people in reaching their goals and their desired results but without limiting choices (Thaler, 2015, p. 324). Libertarians accept freedom of choice, and so they disapprove strongly of paternalism. The libertarian dimension of LP lies in the unambiguous requirement that, generally, people should be at liberty to exclude themselves from predefined plans if they decide to do so (Thaler & Sunstein, 2003, p. 1160, Thaler & Sunstein, 2008, p. 5). For Thaler and Sunstein (2008, p. 5) 'libertarian' means liberty preservation to the extent that decision-makers can select any available options without restrictions. The authors refer to negative liberty as "the absence of obstacles, barriers or constraints" (Carter, 2022). However, if liberty preservation is interpreted as *positive liberty*, meaning "the *presence* of something (i.e., of control, self-mastery, self-determination or self-realization) [and] the degree to which individuals or groups act autonomously" (ibid.), then the notion of LP is compromised.

Let us picture the full range of government policy tools along a choice continuum (see Figure 4). Nudges or soft/means-related paternalism with choice preservation and a low or zero cost if the decision-maker departs from the default rule are placed in the middle position of the continuum. At the top there is hard/ends-related paternalism/top-down regulation (e.g., mandates, bans) which limits choice to one predefined option. At the same time, at the bottom there is maximal/pure libertarianism (no state intervention at all) where citizens are provided with full choice (John *et al*., 2022).

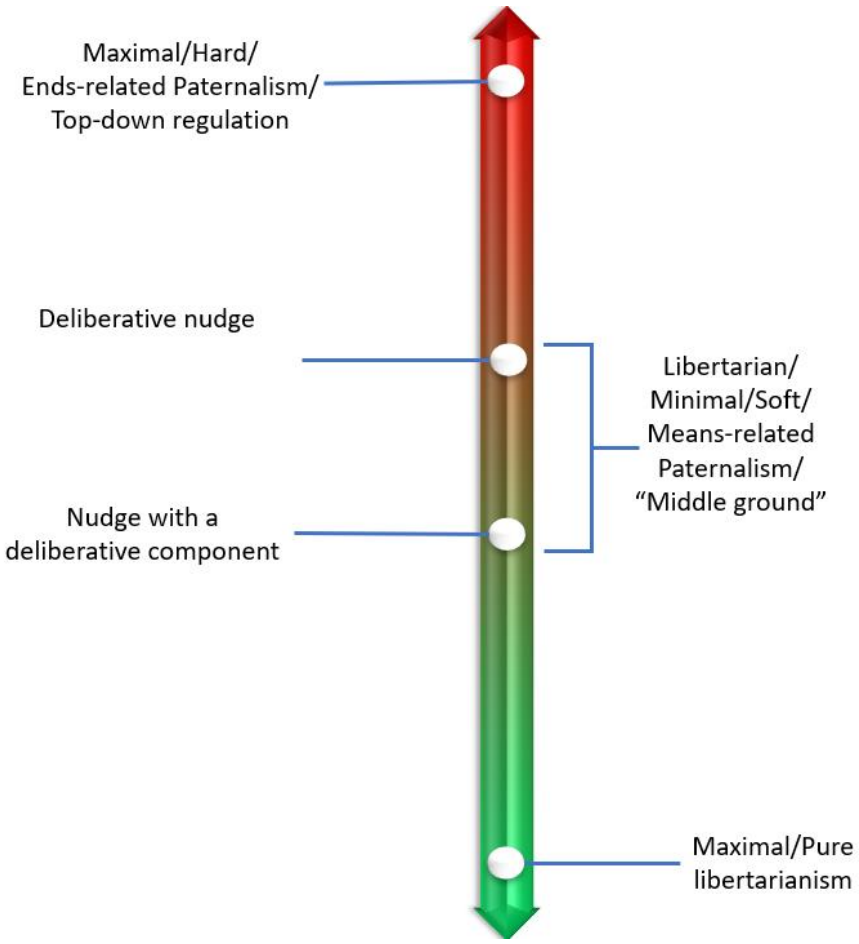

Figure 4. The full range of government policy instruments along the choice continuum

Author's elaboration

Right from the moment the term LP was introduced in the history of economic thought twenty years ago, Thaler and Sunstein were made aware that this alternative, innovative economic doctrine would raise a lot of objections from uncompromising anti-paternalists who would criticize the manipulative and cunning attempt of a paternalistic government to unnecessarily intervene in individual liberty and autonomy to help remedy citizens' irrational decisions for their good without asking their consent and subtly push individual preferences, choices and behavior in welfare-promoting directions. The authors seek to refute these objections and

provide some arguments and evidence for justifying the use of the LP approach in the public and private realms.

A first objection uses the slippery slope metaphor to make its point. By advancing LP, we are beginning to go down ‘a very slippery slope’. Let us imagine a steep downhill slope and a glass ball lying at rest at the top of the slope (see Figure 5). The glass ball represents a paternalistic state intervention. In this condition, there is an equilibrium condition (no use of nudges). Maximal libertarianism is at the highest end of the slope while maximal (hard) paternalism is at the lowest end of the slope.

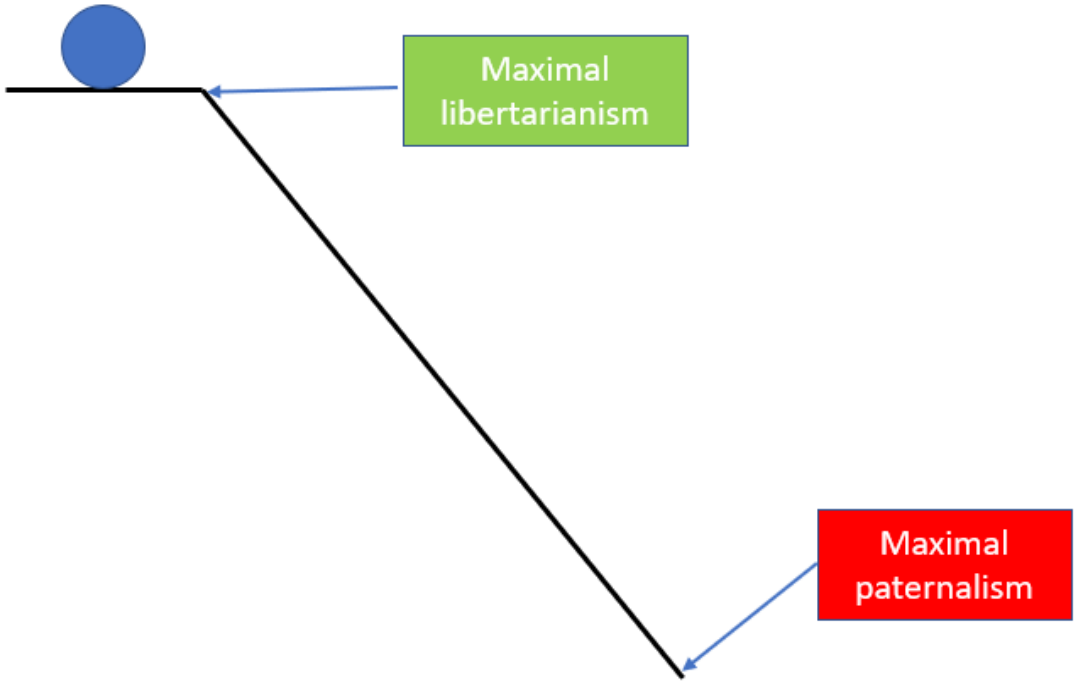

Figure 5. Equilibrium condition (no use of libertarian paternalistic nudges)

Author’s elaboration

Anti-paternalists claim that as soon as libertarian paternalistic nudges start to occur, the ball will start rolling down the slope (see Figure 6). The more paternalistic an intervention becomes, the further down the slope goes the ball. Anti-paternalists argue that once we consent to LP, highly interfering interventions will certainly follow, and the situation will be irreversible. Once the ball starts rolling down the slope, we cannot reverse its direction because of gravity. For instance, the government will soon begin to design coercive healthcare plans and choice will not be kept anymore if the libertarian paternalist can launch the programs that are favored. The libertarian paternalist has three problems with this disagreement. First, if the planner’s nudges or choice sets help citizens make smarter choices and improve their lives, “isn’t that a

good thing?" (Thaler & Sunstein, 2008, p. 237). Second, in many cases there is no way of proceeding without a default rule as there is no practical alternative to paternalism in the feeble sense of the term.

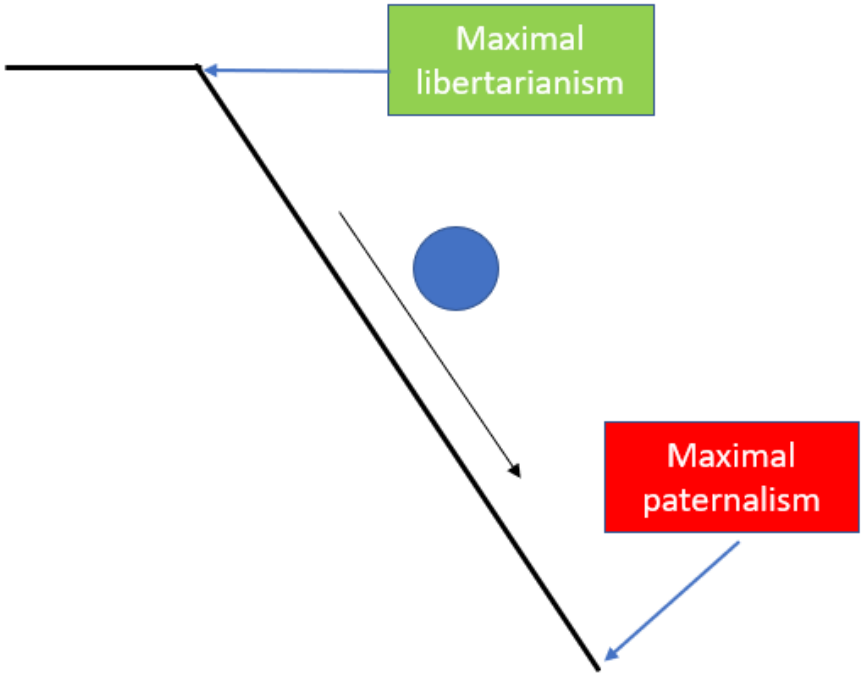

Figure 6. The 'slippery slope' (from maximal libertarianism to maximal paternalism)

Author's elaboration

Some kind of nudge is impossible to avoid because of the social environment we live in, so private and public choice architects must act and design thorough and judicious choice settings which will facilitate people to deal with complex and critical decisions (ibid). Therefore, this argument ignores the inevitability of the default rule as planners are obliged to slightly go down that slope (Sunstein & Thaler, 2003, p. 1199). Third, the slippery slope is made far less steep by the libertarian nature of LP and our libertarian situation, which allows us to exclude ourselves from a default rule with a low cost. As long as paternalistic interferences can be easily circumvented by those who wish to select a choice, the risks highlighted by anti-paternalists are minimal, modest. LP is a choice-preserving agenda, so the slope, by definition, cannot slip if the libertarian paternalist is in charge.

A second sensible objection is whether we ought to distrust the planners/choice architects and whether they are able to make reasonable choices (Sunstein & Thaler, 2003, p. 1200). It may be that the planner has an economic interest in suggesting a nudge. The planner may indeed be self-interested or confused; but even in this case,

there is no way of doing without default rules. Thus, providing that it is unavoidable for private or public agents to produce default rules, there is ineluctably the risk of bias or confusion on the part of the choice architects. We might think that some governments' interventions sometimes seem misleading, behind-the-back, and contemptuous to the people who are purportedly being benefited. For example, an employer can easily change employees' allocations just by switching the default rule and we know that inertia and suggestion will be very strong. Thaler and Sunstein embrace John Rawl's publicity proviso, described in his book *A Theory of Justice* (1971), according to which the government should not select "a policy that it would not be able or willing to defend publicly to its own citizens." (Thaler & Sunstein, 2008, p. 244), a policy which, if it was disclosed, would be either impractical or unbearable. In addition, the government should respect its citizens, and if it implemented policies that it could not support openly, it would lie to them and would be disrespectful (Thaler & Sunstein, 2008, p. 245). To this end, the publicity principle could serve as a safety valve for the state. So libertarian paternalists at this point should accept this objection and that none of the things proposed so far come into conflict with the publicity principle. The authors admit that it is problematic so long as there is a manipulation problem in some of these.

A third logical objection is that in some areas (e.g., voting) "people have a right, even a constitutional right, to government neutrality of a certain kind" (Thaler & Sunstein, 2008, p. 246), which means that the government cannot prompt people paternalistically even in this relatively soft form of steering. The government could theoretically design a nudge, for example, choosing the order of the candidates' names, which would retain choice for voters. Nevertheless, this steering would be impermissible.

1.6 Conclusion of the chapter

In this chapter an overview of Thaler & Sunstein's book *Nudge* (2008) was made. The central concepts of the Nudge program were presented and explained. The authors seek to disprove the prevailing notion of *homo economicus* or 'Econ' in neoclassical economic theory, associated with the rational choice theory, which assumes that human beings are fully rational, infallible, and always make optimal decisions. Thaler and Sunstein attempt to debunk this widely held false belief, drawing from behavioral (micro)economics, cognitive psychology and neuroscience

laboratory results. They claim that the real world is populated by fallible, rationally imperfect Humans, who make regular and predictable mistakes, coupled with systemically bad choices and decisions for their lives because of innate cognitive *biases (s*ystematic patterns of deviation from rationality) in human thinking, which negatively affect their problem-solving and judgment abilities. They underline that people can be so clever and unwise because they process information via two distinct cognitive systems: System 1, which operates subconsciously and fast on an automatic basis, and System 2, which operates self-consciously and slowly and requires mental effort and attention. Laureate economist and psychologist Daniel Kahneman (2002, 2011) was the first to show that our brain has two operating systems. Thaler and Sunstein *pinpoint the constant internal conflict* between our rational theoretical selves and our irrational actual selves, which brings us to two other crucial notions, 'choice architecture' and 'choice architect', upon which they build their political philosophy approach.

Thaler and Sunstein know that humans dislike complex and challenging situations and that their behavior is guided by intractable mental shortcuts and hardwired psychological fallacies, making irrational, inferior choices and decisions. So, they argue that social planners or choice architects in private and public institutions should make some subtle paternalistic interventions by slightly altering the setting in which choices are made. This would help people make better-informed decisions to improve their welfare, without compromising their freedom. Choice architecture and nudging are inevitable because they are an integral part of our social environment and there is no neutral default rule. So, what we can do is either accept them or ignore them.

Thaler and Sunstein seek to delineate the concept of nudge, understood as the policy implication of behavioral science, which aims to defy human irrationalities, dissolve psychological prejudices and induce behavioral change. Nudge is a non-coercive method to assist people in changing their harmful habits and the way they process information and discretely channel them towards making unbiased, prudent micro- and macro-decisions, which they judge as beneficial, without reducing options.

Thaler and Sunstein invent the apparently oxymoronic term 'libertarian paternalism', a soft version of unavoidable paternalism, which is beyond old-fashioned politics of

left and right, and which incorporates choice architecture and nudges, as a Third Way option or ideological realignment. Libertarian paternalism seeks to avoid "both overbearing statism and laissez-faire dogmatism" (Leggett, 2014, p. 7) and justify the necessary state intervention to assist cognitively faulty individuals in making better choices for their lives and their well-being. What is intriguing is that Richard Thaler[8], who, we could say, belongs somehow to *Chicago School II* of economics, advocates some socio-economic principles (e.g., rational expectations) that stand in stark contrast with the credos of the original neoclassical *Chicago School I* of economics of Milton Friedman[9] and at the same time he reinstates many of its core tenets (e.g., 'free market' libertarianism) (Jones *et al*., 2011, p. 50).

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[8] "Thaler is actually professor at The University of Chicago Booth School of Business, and not the University of Chicago's Department of Economics (as Milton Friedman had been)." (Jones *et al*., 2011, p. 60).

[9] Friedman received in 1976 the Nobel Prize in Economic Sciences "for his achievements in the fields of consumption analysis, monetary history and theory, and for his demonstration of the complexity of stabilization policy." (Nobel Prize, 1976)

CHAPTER 2

APPLICATION OF BEHAVIORAL ECONOMICS AND NUDGE THEORY TO PUBLIC POLICY

> "*My sense is that this financial crisis is going to amount to a coming-out party for behavioral economists and others who are bringing sophisticated psychology to the realm of public policy.*" (David Brooks, *The New York Times*, October 28, 2008)

2.1 Introduction

In a new era of uncertainty for individuals and policymakers, the COVID-19 pandemic has conceivably triggered intense debates on public policy issues that fall into the field of behavioral economics. In this vein, various types of nudges were systematically used by governments and public institutions across the globe as an additional policy tool in launching crucial public policies (e.g., public healthcare, public finance, employment). Governments, realizing that "control over knowledge and information is an important dimension of power" (Haas, 1992, p. 2), suddenly needed to persuade billions of people worldwide to change their behavioral routines drastically. So, they turned to academic and professional experts and (behavioral) scientists for advice and help to urge obedience to the restrictions and measures imposed to curb the spread of the pandemic (e.g., strict social distancing, home confinement, and handwashing adherence). Social and behavioral scientists responded promptly to the governments' call. They advised policymakers systematically on the use of relevant behavioral insights, their effectiveness, and their possible effects on behavior change as well as on the principles policymakers should adhere to in the designing and implementation of behavioral interventions (including nudges) in various policy areas (Krpan *et al*., 2021, p. 154).

In this chapter, first, it is examined whether BE is compatible with or whether it is a departure from neoclassical economics (henceforth NE). Second, the concept of 'behavioral insights' is presented, showing how it differs from nudges. Third, we seek to clarify the interrelationship between behavioral sciences, BE, behavioral insights, behavioral public policy, behavioral public administration, and nudges in a neuroliberal

or behavioral government framework. Finally, we investigate how government departments all over the world seek to integrate the results of behavioral science experiments into all the stages of the policy process, by establishing behavioral insights teams, nudge units or public sector innovation labs under various names, administrative structures, and tasks, to achieve their policy goals.

2.2 Neoclassical and behavioral economics

2.2.1 Neoclassical economics

The classical economic theory has had a longstanding intellectual tradition, rooted in Adam Smith's (1723-1790) *The Wealth of Nations* (1776). The term 'neo-classical' was created later by the Norwegian-American economist and sociologist Thorstein Veblen (1900, p. 265) to refer to an ontological inconsistency - between the concept of reality and tools used to analyze it - in Alfred Marshall's[10] writings (Pratten, 2023; Mayhew, 2015). Neoclassical economics is closely associated with the rational choice theory,[11] which assumes that "people by and large act in the manner that they should" and that divergences from perfect rationality are so tiny and desultory (Angner, 2021, p. 2).

2.2.2 The behavioral turn in economics

In the 1950s Harold Lasswell,[12] Herbert Simon[13] and Charles Lindblom[14] sought to contest the lasting model and figure of *Homo Economicus* or the Economic Human, an

[10] Marshall is considered as one of the founding fathers of neoclassical economics (Aspers, 1999, p. 652)

[11] In rational choice theories, individuals are viewed as stimulated to act by the desires or objectives that make explicit their 'preferences'. They take action within particular, known limits and on the grounds of the knowledge that they have about the circumstances under which they are taking actions (Scott, 2000, pp. 127-128).

[12] Lasswell (1902-1978) was an American social scientist who developed the theory of the decision process or the policy cycle and initiated the policy sciences multidisciplinary movement in 1951, which is based on behavioral sciences and analytical approaches.

[13] Professor H.A. Simon (1916-2001) was an American political scientist who coined the term 'bounded rationality' (Simon, 1955; 1979), whereby individuals do not have a perfect rationality, are boundedly rational, due to cognitive limitations, so they choose a satisfactory option rather than an optimal one, seeking 'satisficing' until an acceptability threshold is reached instead of utility maximization. Bounded rationality is a core concept of behavioral economics. In 1978 he was awarded the Nobel Prize in Economic Sciences "for his pioneering research into the decision-making process within economic organizations." (Nobel Prize, 1978).

[14] Lindblom (1917-2018) was an American political scientist and economist who developed the theory of incrementalism in public policymaking. He believed that rational decision-making is an unreachable ideal for most policy issues and that large policy changes are the outcome of many small incremental, gradual changes.

indispensable “myth for liberal societies” (Jones *et al*., 2013, p. 2), which on the one hand, prescribes a self-regulating society guaranteeing personal freedom, and on the other hand, reflects the neoclassical core assumption that policy actors are fully rational - when they make decisions -, self-interested wealth- and utility-seeking. The aforementioned economists and policy scholars explored the influence of cognitive limitations and environmental constraints in decision-making and problem-solving in public policy against a backdrop of a neoliberal economic tradition, represented by Adam Smith, and the so-called Chicago School of economic thought, comprising Friedrich Hayek and Milton Friedman. BE is a compound of a critique of NE based on human’s cognitive biases and heuristics and the adoption of a pragmatic, policy-oriented perspective.

In the 1980s and 1990s, Kahneman & Tversky[15] (1979, 1982, 1999), Kahneman *et al*. (1991), Thaler (1980, 1990, 1999), and Thaler & Johnson (1990), among others, collected laboratory data and conducted controlled lab experiments, drawing insights from the fields of psychology, neuroscience and microeconomics, and applying it on economic behavior, to explain how individual economic decisions are made. These economists sought to enrich NE, by modifying and testing basic economic assumptions such as rational choice theory and welfare maximization, thus turning economics into a more realistic, empirical, and experimental science (Brendt, 2015, p. 568).

In 2001 the Nobel Prize in Economic Sciences was awarded jointly to George Akerlof,[16] Michael Spence and Joseph Stiglitz “for their analyses of markets with asymmetric information” (Nobel Prize, 2001). In 2002 the same prize was shared between the cognitive psychologist and economist Daniel Kahneman “for having integrated insights from psychological research into economic science, especially concerning human judgment and decision-making under uncertainty” and the experimental economist

[15] Kahneman and Tversky were highly influenced by the work of Herbert Simon. Kahneman (2003, p. 697) wrote that he and Tversky “explored a territory Herbert Simon had defined and named - the psychology of bounded rationality”.

[16] Akerlof was the co-author of the book entitled *Animal Spirits: How Human Psychology Drives the Economy, and Why It Matters for Global Capitalism*, published in 2009, which was based on the work of Keynes to describe how psychological factors and emotion, the so-called ‘animal spirits’, have a strong impact on our economic decision-making.

Vernon L. Smith “for having established laboratory experiments as a tool in empirical economic analysis, especially in the study of alternative market mechanisms” (Nobel Prize, 2002). Fifteen years later the economist Richard Thaler also received the Nobel Prize in Economic Sciences *“*for his contributions to behavioural economics*”* (Nobel Prize, 2017). In 2019 the economists Abhijit Banerjee, Esther Duflo, and Michael Kremer were awarded the Nobel Prize in Economic Sciences “for their experimental approach to alleviating global poverty” (Nobel Prize, 2019). The research findings of the economists mentioned above laid the foundations for the establishment of an alternative approach to NE, called ‘behavioral economics’[17] (henceforth BE), “a relatively new field, one that draws on aspects of both psychology and economics” (Ariely, 2008, p. xiv), “a scientific discipline that applies psychological insights into human behaviour to explain economic decision-making” (Lourenço *et al*., 2016, p. 10), “the application of the inductive scientific method to the study of economic activity” (Lunn, 2014, p. 20).

The implicit behavioral welfare economics model of human agency is that of an ‘inner rational agent’ who interacts with the world through an imperfect psychological ‘shell’. The behavioral welfare economics logic presupposes a dualistic human action model, represented in two concentric circles (see Figure 7). The inner circle, the core of the self-model, contains the ‘inner rational agent’ while the outer circle is the psychological husk or shell of the core (Sugden, 2015, 2018). The inner circle includes individuals’ context-independent, ‘true’ or ‘latent’ preferences while the husk is error-prone as it contains defective psychological mechanisms such as cognitive biases and heuristics. Individuals’ latent preferences in the inner circle are not always divulged in real choices, because of mistakes-deviations caused by psychological factors, including in the outer circle. Thus, a common reaction to tackle these deviations is to embrace a ‘preference purification’ approach (Infante *et al*., 2016), which aims at reconstructing latent preferences - that individuals would have acted on if they had argued logically. This reconstruction implies identifying and removing the effects of error on decisions, and designing policies to satisfy those preferences. Behavioral welfare economics preserves traditional welfare economics’ criterion of the satisfaction of preferences for evaluating

[17] Ariely (2008, p. xiv) labels behavioral economics as ‘judgment and decision making’ (JDM).

what is good for a person. Sugden (2015, 2018) claims that there is insufficient proof to support this model, and that there is no reasonable psychological basis for it. Since the term 'true preference' is empirically empty, the idea that such preferences can be refixed is an illusion.

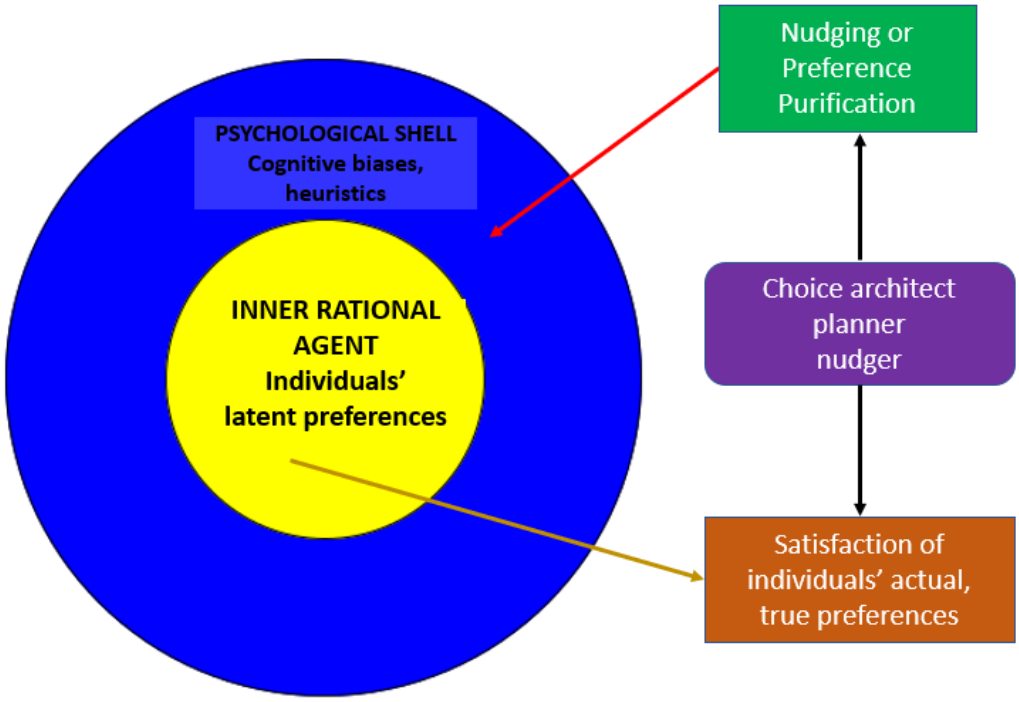

Figure 7. The dualistic model of human action

Author's elaboration

Thaler & Sunstein underline that individuals have subjective judgments about the factors that make them happier, improved and more successful and know their authentic goals in life. The fact that different people in similar environments may form different judgments about what is subjectively good for them, does not mean that anyone's judgment is fallacious (Sugden, 2017, p. 116). So, when designing nudges, policymakers seek to bring out, respect and satisfy these hidden preferences and help citizens improve their lives.

Thaler & Sunstein (2008, p. 5) pinpoint that people often make relatively poor decisions – decisions they would have never made if they were completely attentive, thoroughly knowledgeable, infinitely intelligent and highly resistant to temptations. Thus, individuals' inner perceptions about their own well-being become known and are

expressed in the decisions which the individuals would have made if reasoning imperfections were absent from the outer psychological shell of the human being, which traps the inner rational agent and hampers it from reaching its goals (Infante *et al*., 2016, pp. 1-2). This is exactly the job of policymakers or choice architects, preference purification. This process consists in recreating and reassembling people's mistake-free dormant neoclassical preferences and decisions that the inner agent would perform if the errors in the psychological shell were remedied (Infante *et al.*, 2016, p. 14). Policymakers can then suggest policies that match these supposedly stable and coherent preferences (Sugden, 2017, p. 116).

On the one hand, NE has had a historical supremacy since its inception during the first half of the twentieth century, having consolidated itself after World War II, as well as a long intellectual legacy, which is dedicated to a theory of rational choice (Angner, 2021, p. 2). On the other hand, BE has long placed itself, at least partly, against NE (Angner, 2019, p. 195). Herbert Simon, who represents the 'old' BE[18] through the concepts of 'bounded rationality' and 'procedural rationality' (1955, 1976, 1979) and Daniel Kahneman and Amos Tversky, who represent the 'new' BE[19] (1974, 1976) through their work on cognitive biases and prospect theory, originally sought to challenge the prevailing standard economists' substantive rationality (Angner, 2019, p. 195). It can be said that BE has a brief history but an extended past (Angner, 2021, p. 3) as before the early aughts behavioral economists were not regarded as genuine economists by standard economists. Neoclassical economists tended to disagree with psychologically 'realistic' behavioral economists and rejected cognitive psychology-informed economics as well as the psychological strand of rational choice (Angner, 2019, p. 196).

[18] According to Sent (2004, pp. 740-741), there are four distinct groups of 'old' behavioral economists, depending on the academic institution they are affiliated with and their area of expertise. 1) A group of researchers at Carnegie-Mellon University, in Pittsburgh, Pennsylvania, who focused on bounded rationality, satisficing, and simulations, comprising scholars such as Richard Cyert, James March. 2) a group of researchers at Michigan, led by George Katona, who studies consumer behavior and macroeconomic issues. 3) a group at Oxford, who stressed the significance of case studies, uncertainty, and coordination, comprising P. W. S. Andrews, D. M. Lamberton, H. Malmgren. 4) Some researchers at the University of Stirling, who examined eclecticism and integration, represented by Neil Kay, Brian Loasby, Richard Shaw.

[19] Other distinguished 'new' behavioral economists are Andrei Shleifer, Matthew Rabin, Sendhil Mullainathan, Colin Camerer, David Laibson and George Loewenstein (Sent, 2004, p. 737).

It was Camerer[20] *et al*. (2003) and Sunstein & Thaler (2003) who began hesitantly in the early 2000s to apply their experimental research findings and observations to practical policy concerns in the form of behavioral insights (e.g., loss aversion, present bias). New behavioral economists seek to predict and explain behavior that is not foreseen by standard economic theories and that disproves the expected utility theory and suggest primarily light forms of paternalism or non-obligatory behavior change (Oliver, 2017, p. 1). A behavioral turn was gradually observed within academia in the late aughts and mid-2010s, which was signaled by some critical junctures (Tzotzes & Milonakis, 2021, p. 173):

a) the financial crisis of 2007 and 2008 and the ensuing economic crisis, which made (neoclassical) economists and policymakers rethink some core assumptions of the prevalent standard economic theory and which vigorously questioned the long-held credence of the rationality of expectations and the efficiency of the markets;
b) the awarding of the Nobel Prize in Economic Sciences to behavioral economists Daniel Kahneman and Vernon Smith in 2002 and Richard Thaler in 2017 and
c) the adoption by the US President, Barack Obama in 2009 and the UK Prime Minister, David Cameron, of behavioral science insights to improve individual economic behavior by creating settings that help people select what is best for themselves and society.

Both neoclassical and behavioral economists have been making lately an effort to minimize the importance of their differences (Angner, 2019, p. 195), if there were really any in the first place. The common feature of NE and BE has always been that they both conceive economics "as the study of people's decisions under conditions of scarcity and of the results of those decisions for society." (Angner, 2021, p. 3). BE, along with behavioral sciences, nowadays has consolidated itself as a subfield of

[20] Colin Camerer is Professor of Behavioral Finance and Economics at the California Institute of Technology and studies both behavioral and experimental economics.

economics in the academia and as an alternative policy instrument in the public policy realm to the extent that “we’re all behavioral economists now” (Angner, 2019, p. 197).

2.2.3 Is mainstream behavioral economics a paradigm change?

The scientific practices of mainstream BE are clearly distinct from those of standard neoclassical economics (henceforth NE). The volume and the quality of BE research (in the form of survey experiments, journal articles, books, conference papers, PhD dissertations) that has appeared over the last two decades has increased enormously and has made a strong impact in academia in the aforementioned (sub)disciplines. In addition to this, ‘nudge’, ‘the pinnacle of behavioral economics’, has been met with excessive enthusiasm from policymakers and public policy practitioners, especially in the Anglo-American and Western Europe countries, as an alternative, revolutionary policy tool to achieve public policy goals through behavior change. Given the Kuhnian concept of the “scientific revolution”, we are wondering whether BE has matured enough as a science to ensure “the successive transition from one paradigm to another” (Kuhn, 1970, p. 12) as presently there is no consensus from scholars about this (Tomer, 2017). For example, Tomer (2007), Etzioni (2011), Brzezicka & Wisniewski (2014), Angner & Loewenstein (2012) argue that BE could replace NE as the new paradigm while Sontheimer (2006), Aumann (2019), Tzotzes & Milonakis (2021), Thaler (2016) claim that BE and NE are complementary, BE being at the basis of NE, and that NE is not going through a paradigm change.

The question is whether mainstream BE represents a new research program, a paradigm change, which challenges and seeks to replace the dominant research program of NE. We assume that BE has triggered an intra-program problem shift[21] within the standard economics research program, which modifies its protective belt, but which does not affect its very hard core. Drawing on Lakatosian insights, we will seek to show whether, and in what sense, BE and NE represent rival paradigms. More specifically, we will use Lakatos’ (1970) Methodology of Scientific Research

[21] It is “the move from one theory to its successor within a research program” (Brahmachari, 2016, p. 4).

Programmes (MSRP), whereby scientific research programmes[22] or Kuhnian paradigms, comprise two components:

- a “hard core” (the 'unfalsifiable central tenets', the fundamental premises, the unshakeable beliefs of researchers), which contains theoretical statements and hypotheses that are neither adjusted nor replaced;
- a ‘protective belt’ around the hard core, with positive and negative heuristics, which includes auxiliary hypotheses and assumptions (that may be adjusted, re-adjusted or replaced, when new evidence is produced, to shield the integrity of the core), observational theories, ad hoc solutions.

The common denominator of NE and BE comprises the following features:

a) ‘Methodological individualism’ was introduced as a methodological principle for the social sciences by Max Weber, mainly in the first chapter of his work *Economy and Society* (1922), published after his death.[23] Methodological individualism as opposed to holism is defined as “the doctrine that all social phenomena (their structure and their change) are in principle explicable only in terms of individuals – their properties, goals, and beliefs.” (Elster, 1982, p. 453). Whether nonrational, limitedly rational, or cognitively defective, the individual still provides the basis for understanding and explaining complex macroeconomic social phenomena in terms of economic agents’ behaviors and their interactions (Tzotzes & Milonakis, 2021, p. 179). The term was brought to the attention of philosophers by Karl Popper (1945, Vol.2, p. 91), who interprets methodological individualism as follows:

> “[…] the important doctrine that all social phenomena, and especially the functioning of all social institutions, should always be understood as resulting from the decisions, actions, attitudes, etc., of human individuals, and that we should never be satisfied by an explanation in terms of so-called ‘collectives’ (states, nations, races, etc.).”

[22] A research program is a series of theories within an area of scientific inquiry (Brahmachari, 2016, p. 4).

[23] The German term ‘methodische Individualismus’ was created by an eminent economist, Joseph Schumpeter, one of Weber’s students, and was the title of a chapter of his 1908 book entitled *Das Wesen und der Hauptinhalt der theoretischen Nationalökonomie* (The Essence and Main Content of Theoretical National Economy). The term ‘methodological individualism’ first appeared in English in a journal article of Schumpeter (1909) (Hodgson, 2007, pp. 211-212).

b) Bounded rationality, which was judiciously reintegrated into new BE by introducing psychological insights to the mainstream idea of rationality, thus bringing it closer to NE (Tzotzes & Milonakis, 2021, p. 178). Simon argues that although people's choices are irrational, people act rationally, because this was their intention initially and that bounded rationality is not equivalent to irrationality. He thinks that "there is plenty of evidence that people are generally quite rational; that is to say, they usually have reasons for what they do" (Simon, 1985, p. 297). The Nobel laureate experimental economist Vernon Smith (2005, p. 135) argues that both NE and new BE hinge on the same hidden explanation of economic rationality. NE and BE seem to agree on the way they both conceive rationality but seem to disagree on the extent that human behavior deviates from the rational model (Tzotzes & Milonakis, 2021, p. 179). Neoclassical economists acknowledge that rational people do not always behave rationally and can take decisions that are not in their best interests. In contrast, new behavioral economists recognize that people are not always irrational by committing systematic mistakes because of cognitive limitations. Behavioral economists try to shape individuals back into the mainstream norm of rationality. Jones *et al.* (2013, p. 6) argue that the neoclassical tradition does not automatically ban the irrationality principle suggested by Simon and adopted by BE.

c) (Pareto) efficiency or optimality, whereby behavioral and experimental economics seem to maintain "the neoclassical view of rational choice, defined in terms of the choice that confers the individual the highest net benefit given constraints, and of the market understood as a mere allocation mechanism" (Santos, 2011, p. 707). Pareto efficiency is the major yardstick used in welfare economics to evaluate the desirability of a state of affairs or outcome in terms of welfare (Hédoin, 2015, p. 84).

d) The fundamentally constrained preference-satisfaction is preserved by both the neoclassical and the behavioral welfare economics model as they aim to satisfy individuals' preferences but through different routes. This means that an individual in both models of choice can fulfil the highest preference in his/her preference ranking,

preferences understood as “rankings of states of the world with no specific psychological basis” (White, 2019, p. 320).

e) Neoclassical welfare economics and soft paternalism, understood as behavioral welfare economics, have a significant joint characteristic - the observation point from which welfare evaluations are made (Sugden, 2013, p. 521). They are both addressed to a hypothetical, fictional ‘choice architect’, “an entity variously known as ‘the policy-maker’, ‘the government’ or ‘the social planner’”, whose goal is to maximize the general economic and social welfare, “as viewed by an impartially benevolent spectator” (Sugden, 2013, p. 522). The choice architect is willing to listen to the economists’ advice on the best way to allocate resources in the economy and design a choice environment, where decision problems are displayed, to nudge people in the desired direction, improving their well-being.

On the other hand, there is a modification in the ‘protective belt’ between NE and BE in terms of the auxiliary hypotheses, which leaves the NE hard core intact. For a critical comparison between NE and BE using Lakatos’ MSRP, see Table 2.

In the light of the above, we conclude that “behavioral economics represents a natural progression of (rather than a challenge to) neoclassical economic methods” (Chetty, 2015, p. 1). In addition, BE is not incompatible with either neoliberalism or NE as it appears prima facie (Jones *et al*., 2013, p. 6). Thus, contrary to the findings of OECD (2015, p. 10) and some scholars (e.g., (Etzioni, 2011, Schettkat, 2018; You,

Table 2. Comparing NE with mainstream BE applying the Lakatosian MSRP

Author's elaboration

Category	Hard core	Protective belt
Neoclassical Economics	Methodological individualism Bounded rationality/ logical deduction Pareto efficiency/optimality Preservation of the constrained preference-satisfaction The addressee of neoclassical welfare economics is the benevolent policymaker (government)	Study of 'Homo economicus' in an abstract economy Rational choice theory It characterizes optimal behavior. People are Bayesian information processors, have clear and stable preferences over time and exponentially discount future well-being in market settings. Optimization: a) utility or profit maximization theory/ utilitarianism under constraints and equilibrium, b) market clearing
Behavioral Economics	Methodological individualism Bounded rationality/ logical deduction Pareto efficiency/optimality Preservation of the constrained preference-satisfaction The addressee of the behavioral welfare economics is the benevolent 'choice architect' (policymaker or government)	Study of 'Homo sapiens' in the real economy Integration of psychology and psychological realism into economics It describes and predicts actual behavior. People are flexibly rational, goal-oriented, prone to cognitive limitations. Prospect theory (heuristics and biases) Soft/libertarian paternalism Emphasis on behavioral anomalies, understood as economic agents' deviations from the normative model and the mainstream conception of rationality (e.g., loss aversion, overconfidence, self-control, altruism, preference reversals, endowment effects, framing effects, anchoring effects)

2019), BE is not a paradigm shift in public policy, a revolution, or a departure from the neoclassical economics model.

On the contrary, BE is the attempt to amplify the illustrative and prognostic force of economic theory by furnishing it with a more psychologically tenable (meaning in agreement with the best available psychology) substructure (Angner & Loewenstein, 2012, Angner, 2021, p. 3). BE is complementary to NE in that "each approach provides the economist with tools that may come in handy at times, and between which practicing economists can pick and choose as required." (Angner, 2019, p. 196). Rabin[24] (2002, pp. 658–659) corroborates this assertion:

> "[Behavioral economics] is not only built on the premise that economic *methods* are great, but also that most mainstream economic *assumptions* are great. It does not abandon the correct insights of neoclassical economics, but supplements these insights with the insights to be had from realistic new assumptions." (emphasis in the original)

Thaler (2015: 170) underlines that "a real paradigm shift […] would require a whole series of anomalies each calling for its own ad hoc explanation.", which is not the case with BE. Drawing parallels between new institutional economics and NE (Meramveliotakis, 2020), we could say that mainstream BE does not break radically from neoclassical economics. Still, it is a research program deployed within and around the prevailing neoclassical paradigm. Mainstream BE revises or transforms neoclassical model tenets by relaxing the concept of a perfectly rational "homo economicus", who seemingly takes optimal decisions and makes optimal choices, acting with full information and certainty, into a concept of an economic agent who is incapable of exercising global/objective rationality, but who is nudged, without their autonomy being jeopardized, to select optimal, not satisfactory decisions and choices, to maximize their

[24] Matthew Rabin is an American Professor of behavioral economics at Harvard University. His work relates with the economics of individual self-control problems, and he has developed the Rabin fairness model to explain fairness in social preferences.

welfare, thus going beyond their admittedly limited knowledge and cognitive shortcuts and shortcomings.

Our findings are consistent with those of Thaler (2016, p. 1597), who argues that BE is not a paradigm change but just one piece of the increasing significance of empirical work in economics and that there is nothing novel about integrating psychological factors into economics. Thaler (2016, p. 1577) perspicaciously observes that "the methodology of behavioral economics returns economic thinking to the way it began, with Adam Smith" as the first behavioral economist. In his first book, *The Theory of Moral Sentiments* (1759), Smith alleged that human social behavior was regulated by the fight between people's 'passions' and emotions (e.g., hunger, sex, fear, anger, pain) and an outsider, 'impartial spectator', the conscience, who inspects thoroughly every movement they make and calmly counterbalances the incongruous desires of different persons (Ashraf *et al*., 2005; Rela, 2021, p. 129).

2.3 The Behavioral Insights approach

The behavioral insights approach employs evidence about human behavior to practical problems (Hallsworth & Kirkman, 2020). "Behavioral insights is one discipline in a family of three, the others being behavioural sciences[25] and behavioural economics, which mix traditional economic strategies with insights from psychology, cognitive science and other social sciences to discover the many "irrational" factors that influence decision-making." (OECD, 2017, p. 16). "Behavioural insights concern how people perceive things, how they decide, and how they behave" (CCBI, 2022). Behavioral insights (henceforth BI) or behaviorally informed insights investigate behavioral biases, or anomalies, why people repeatedly make erroneous decisions and faulty judgments in the present and do not maximize their future welfare as opposed to behaving like rational economic agents. BI emerged as the direct outcome of "multidisciplinary research in fields such as economics, psychology and neuroscience, to understand how humans behave and make decisions in everyday life" (Lourenço *et al*., 2016, p. 10).

[25] Several (sub)disciplines come under the umbrella term of behavioral sciences: e.g., behavioral economics, anthropology, cognitive psychology, sociology, social psychology, consumer behavior, neuroscience.

It was in 1999 that students at Woodrow Wilson School of Public and International Affairs at Princeton University started to be taught psychology along with economics and politics so that they were made aware of the possible dangers of formulating policies, subsequently as policymakers, based on the rational choice theory advocated by the neoclassical school of thought (Kahneman, 2013, p. VII). It gradually became obvious that standard economics was inadequate to cope with problems derived from irrational individual behavior because its *homo economicus* model assumed that such problems are inexistent (Lowenstein *et al*., 2013, p. 361). The 'Save More Tomorrow' program, launched by Richard Thaler and Shlomo Benartzi in 2001 in the United States, was a pioneering behavioral intervention, which was designed to facilitate saving for retirement. It was so successful that it resulted in the President's Bush Pension Protection Act of 2006, which prompted companies to embrace the basic tenets of the program. The program is estimated to have helped so far about fifteen million Americans considerably increase their savings rate.[26]

In their 2008 book, Thaler and Sunstein introduced the concepts of 'nudge' and 'nudging' (see Chapter 1) as behavioral techniques and tools that policymakers can utilize to steer people towards 'better choices' easily and inexpensively. After this publication the term 'behavioral insights' began to be identified with nudges although the two concepts are totally different in meaning and scope. Nudges are an output of the policy process, an easy and low-cost policy instrument, method, or technique used to achieve a predefined set of policy goals, which changes the options set, and the choice architecture, inducing an individual behavioral change in a foreseeable way, while preserving the freedom of choice. "[A] 'nudge' is a subset of a wider, more empirical and behaviourally focused approach to policymaking." (Halpern, 2015, p. 22). Nudge has been recently added to the existing policy instruments (carrot, whip, sermon) for behavior change by governments (see Table 3).

[26] http://www.shlomobenartzi.com/save-more-tomorrow

Table 3. Policy instruments for behavior change by governments

Source: Tummers, 2019, pp. 926-927

	1. Carrot	2. Whip	3. Sermon	4. Nudge
Change via	Incentives	Mandates and bans	Information campaigns	Choice architecture
Slogan	Reward desired behavior!	Make unwanted behavior illegal!	Tell what desired behavior is!	Make desired behavior easy!
Example	Subsidize electric cars.	Prohibit possession of weapons.	Communication campaign for smoking cessation	Change default so people automatically save for retirement.

On the contrary, BI are an input to the policy process. They can be fully incorporated into other conventional types of intervention (i.e., regulations, incentives, information requirements) and may champion a variety of policy instruments, not restricted to nudges. In addition, BI do not justify a particular kind of output, which means that sometimes the best solution is not to intervene (Lourenço *et al*., 2016, p. 10).

Lunn (2014, p. 23) also distinguishes between BE and nudging. He points out that BE, as a scientific subdiscipline, can be very useful to policymakers and goes beyond helping them design nudges. Nudging, on the contrary, is a normative concept and a possible way to apply BE findings to policymaking.

2.4 Towards a behavioral or neuroliberal public policy paradigm

Over the last several decades a 'behavioral and experimental turn' among policy scholars, psychologists, mathematicians, and economists, stimulated by BE and psychology, has been noticed both in public policy and public administration (Gofen *et al*., 2021, p. 634), pointing towards a behavioral state (Feitsma, 2018b; Leong & Howlett, 2022), a psychological state (Whitehead *et al*., 2020) or behavioral government (Hallsworth *et al*., 2018). Numerous democratic governments in the

developed and developing world can now best be labeled as ‘neuroliberal’ in that they blend the principles of neoliberalism with policy interventions originating from insights in the behavioral sciences.[27] Neuroliberalism refers to “the use of behavioural, psychological and neurological insights to deliberately shape and govern human conduct within free societies” (Whitehead *et al*., 2018, p. 1). LP (and related nudges) embodies the broader approach of neuroliberalism in that it activates styles of government that use psychological tactics while seeking to maintain the (illusion of the) agent’s freedom (Whitehead *et al*., 2018, p. 70).

This turn consists in the psychological findings and the methods of applied behavioral sciences being incorporated into public policy and utilized to influence policy outcomes, help achieve policy goals, resolve complex policy problems, encourage public service motivation and upgrade policy compliance (Hall & Jurcevic, 2022). These policy efforts have led to the development of two new subdisciplines, Behavioral Public Policy (BPP) and Behavioral Public Administration (BPA).

The term ‘behavioral public policy’ was introduced by Adam Oliver (2013), Associate Professor at the London School of Economics and Political Science and chief editor of the journal *Behavioural Public Policy* (BPP), which was launched in 2017. In addition, the *Behavioral Science & Policy* journal, which includes articles on actionable policy applications of behavioral scientific research, was founded in 2015. Behavioral public policy probes how BE could be exploited to inform the design of a wide array of policy frameworks, from nudges, to bans on specific individual behaviors, to the regulation of the private sector (Oliver, 2017). “Behavioral public policy […] includes all means and modes of public policy aiming at influencing human behavior by using insights from behavioral economics, behavioral sciences, psychology or neurosciences.” (Straßheim & Beck, 2019, p. 2; Straßheim, 2020, p. 116).

[27] For example, for a week in January 2012 the Facebook Data Science group, strongly linked to academia, ran, through its own programming language, a social psychology experiment on a part of its users to test whether they were prone to ‘emotional contagion’ (Grimmelmann, 2015, p. 222). This randomized experiment stirred a large public controversy and debate on the ethics of such social experiments which seek to manipulate the behavior of the social media users.

The term ‘behavioral public administration’, which links public administration, understood as both an academic discipline and a field of practice, and psychology, was introduced by Tummers *et al.* (2016) and Grimmelikhuijsen *et al*. (2017), while the *Journal of Behavioral Public Administration* (JBPA) was established in 2018. Behavioral public administration (BPA) is defined as “the interdisciplinary analysis of public administration from the micro-level perspective of individual behavior and attitudes by drawing on recent advances in our understanding of the underlying psychology and behavior of individuals and groups” and it is complementary to traditional public administration (Grimmelikhuijsen *et al*., 2017, pp. 46, 51). BPA is a developing theory which may allow practitioners to use alternative viewpoints to policy design and implementation (Kasdan, 2020, p. 605).

To facilitate the interchange between these two subfields, Gofen *et al*. (2021, p. 635) blend the insights of BPP and BPA into the more inclusive category of behavioral governance, which refers to “the cognitive and decision processes through which decision-makers, implementing actors and target populations both shape and react to public policies and to each other, as well as the impacts of these processes on individual and group behaviour.”

Behavioral approaches to public policy design and implementation with the use of BI are more than a trendy temporary venture. They have expanded internationally in developed and less developed democratic countries across jurisdictions, although unevenly (Leong & Howlett, 2022, p. 219), and a broad spectrum of policy areas (e.g., energy, environment, taxes) (Oliver, 2013; OECD, 2017, p. 13). Behavioral interventions are not just another arrow in the policymakers’ quiver but a novel approach to reevaluating policymaking and public administration considered together (Ewert *et al*., 2021, p. 3). The diffusion of behavioral interventions across the globe proves the repute and the potential of behavioral scientists and experts to convert scientific discovery into policy recommendations (Straßheim & Beck, 2019, p. 2). The emphasis of behavior-changing public policies is now placed on the individual level to change the individual’s

behavior in a particular situation at the micro level which generates relevant social outcomes at the meso and macro levels by changing people's collective perceptions of social reality (Ewert *et al*., 2021, p. 16). These policies acknowledge that the transformation of individuals' actions is pivotal to any state intervention's success (Whitehead *et al*., 2014, p. 5). Nudges are probably the most important subtype of behavioral public policy, which aims specifically at the apparatus of the human cognitive system without having recourse to coercion or incentives (Straßheim & Beck, 2019, p. 2). Since the publication of its first edition, Thaler and Sunstein's *Nudge* has seen a huge rise in popularity with regard to the number of citations (see Figure 8).

Continuing research in BPP and BPA involves studying the organizational schemes or configurations of nudging in the form of Behavioural Insights Teams (BITs) in government, as well as how BI, mainly nudges, are used as an informal supplement or improvement to traditional policy instruments. (Mukherjee & Giest, 2020, p. 1539). Policy instruments or policy tools, understood as "techniques of governing that help define and achieve policy goals", are a vital part of policymaking, and crucially influence policy processes and outcomes (Bali *et al*., 2021, p. 295). "Substantive and procedural

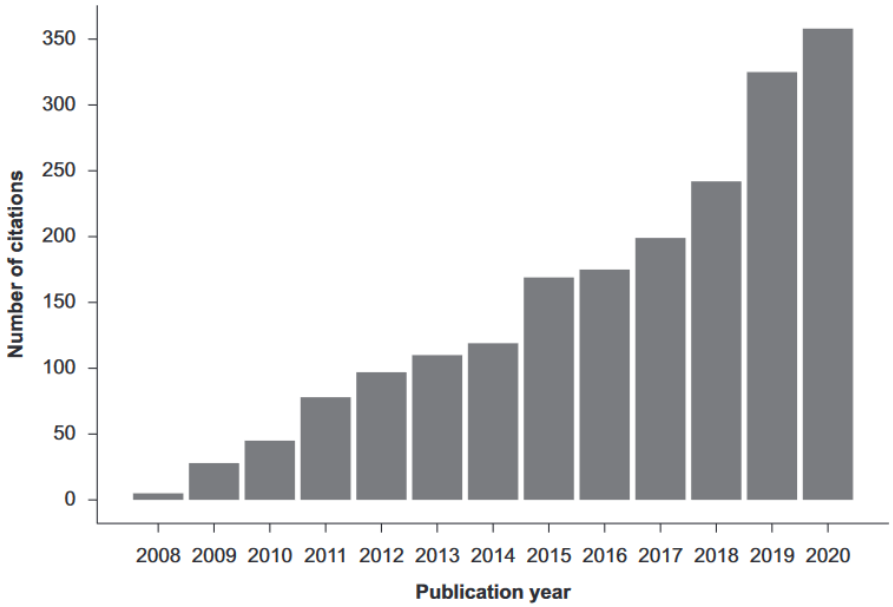

Figure 8. Number of citations of Thaler and Sunstein's book "Nudge" (2008) from 2008 to 2020

Source: Mertens *et al*., 2022, p. 2

policy tools” aim to change or re-channel particular kinds of individual or collective behavior that is consistent with government objectives, ends, and aspirations (Leong & Howlett, 2022, p. 5). The components of behavioral government can be seen in Figure 9.

However, Hallsworth & Kirkman (2020, pp. 13-14) pinpoint three widespread misperceptions about the BI approach. First, BI are not just an option to more conventional tools like information, taxation or legislation but can provide suggestions about how they should be applied and change the policy outcomes. Second, BI not only concern phased, staggered changes but do not center exclusively on individuals’ decisions. Instead, BI can be utilized to reconceive and redevise systems or policies. Third, BI are not simply an extra tool that can be used at policymakers’ discretion, but they permeate most government policies that intrinsically seek to influence human behavior inexorably.

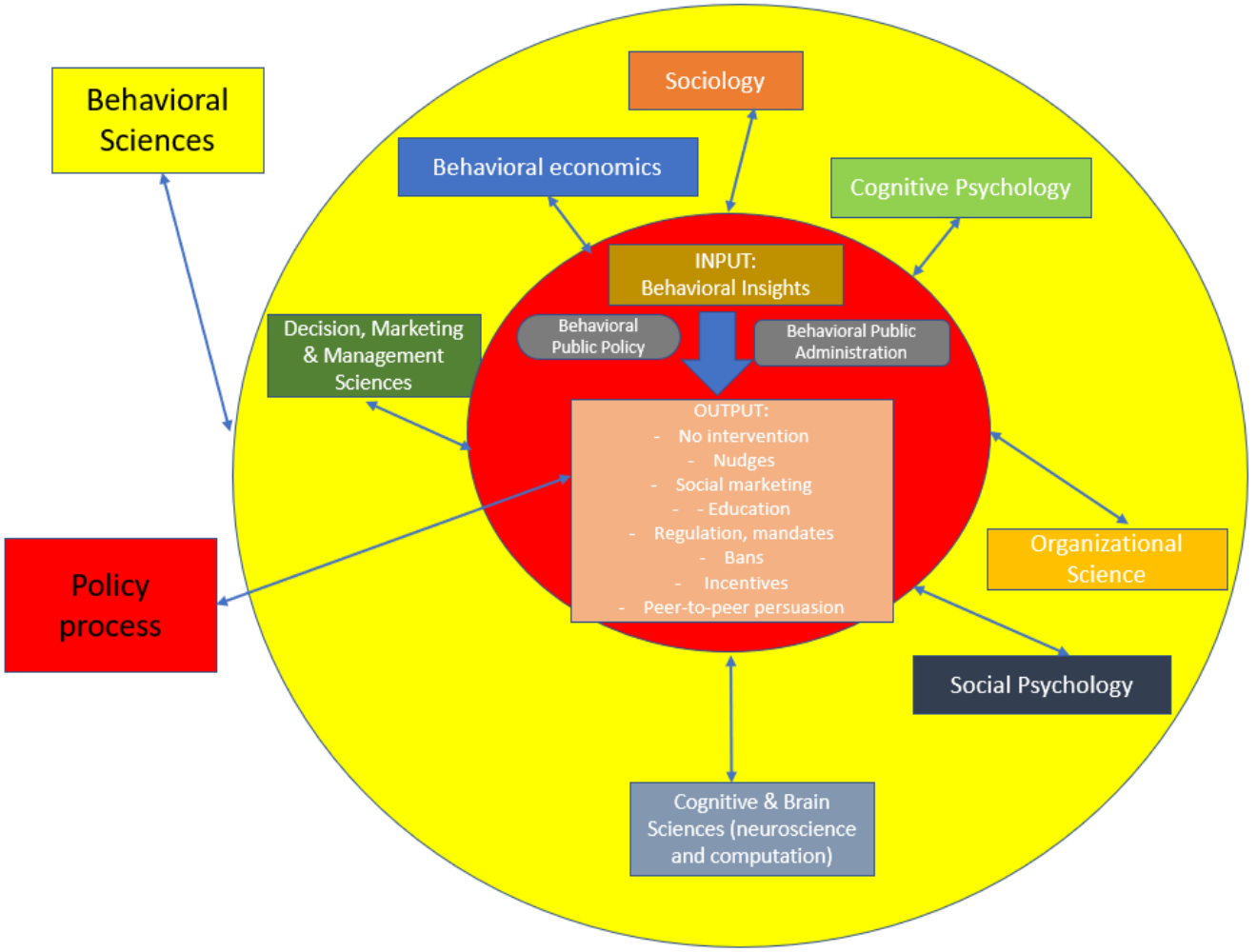

Figure 9. Behavioral government

Author's elaboration

Figure 10 features six examples of possible 'fields' where BI can be applied, depending on the intensity of intervention (information provision: low, economic incentives: medium, legislation and regulation: high) and the scale of intervention (tactical: make changes to the mode of policy implementation and strategic: design the core aspects of the policy itself).

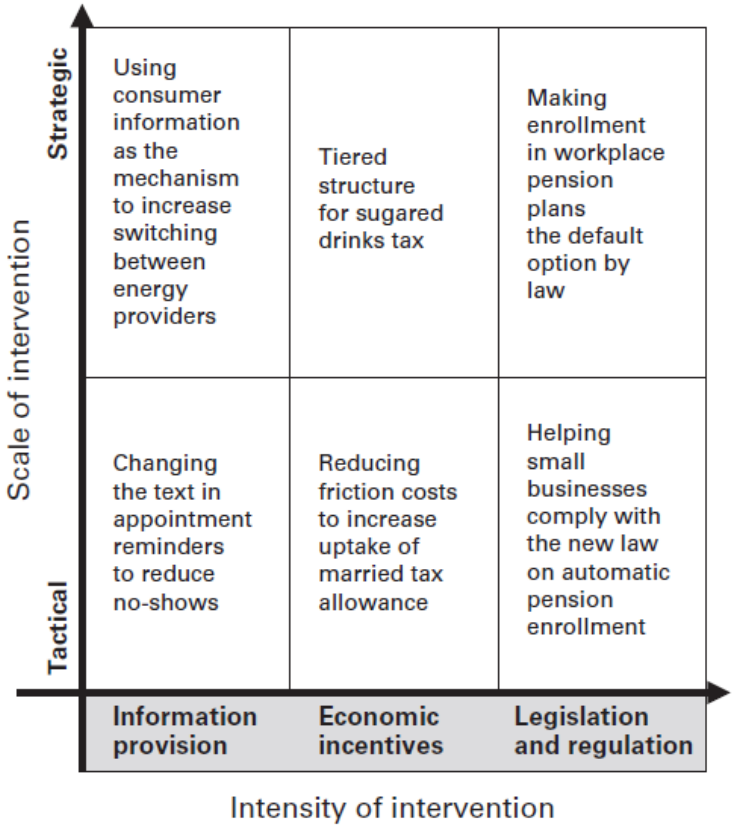

Figure 10. The possible fields of application of behavioral insights in public policy

Source: Hallsworth & Kirkman, 2020, p. 15

To explore the current position of behavioral science and BI in public policy across the globe and their future development perspectives, we make use of Gartner's[28] Hype Cycle,™ which depicts graphically how emerging technologies will evolve over time, which records technology maturity and future potential (see Figure 11).

[28] Gartner, founded in 1979, is an American information technology (IT) research and consultancy company.

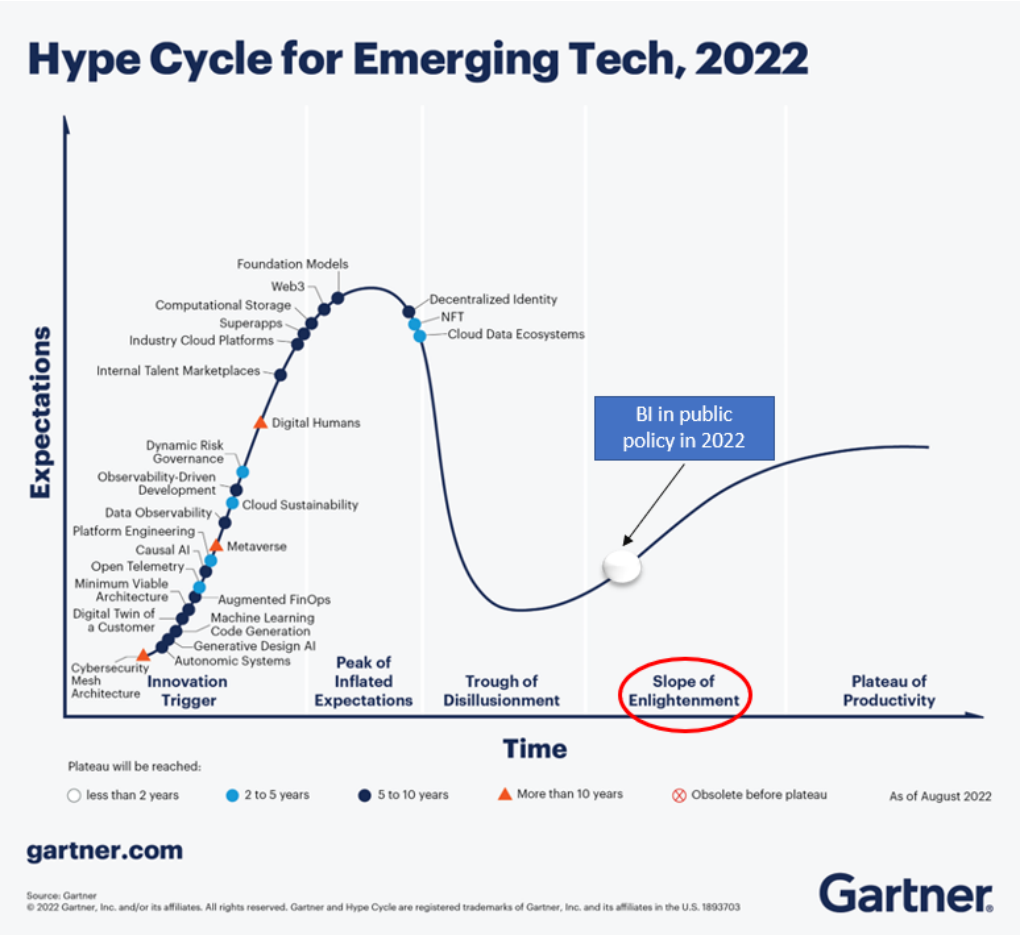

Figure 11. Behavioral Insights (BI) in public policy in 2022 within Gartner's 'Hype Cycle'

Source: Adopted from https://emtemp.gcom.cloud/ngw/globalassets/en/articles/images/hype-cycle-for-emerging-tech-2022.png

The Hype Cycle includes five predictable stages of an emerging technology's life cycle: 1) Innovation trigger; 2) Peak of Inflated Expectations; 3) Trough of disillusionment; 4) Slope of Enlightenment; and 5) Plateau of Productivity. Danny Buerkli (2016) from the Centre for Public Impact[29] (CPI) suggested that behavioral insights, understood as finding ways to nudge people to take better decisions gently, has been entering a 'slope of enlightenment' as it has made substantial progress in a lot of countries. In this phase governments, as early adopters, can see the initial benefits, which become more widely understood, and start to know how to adapt BI into public policies.

2.5 Behavioral Insights Teams or Nudge Units

Since 2008 a 'Behavioural Insights' movement has emerged within governments as a part of a worldwide policy agenda, manifesting an updated concern in methods derived from behavioral sciences when devising public policies (Feitsma, 2018b, p.

[29] CPI is a not-for-profit foundation, founded by The Boston Consulting Group in 2015 to help improve the positive *impact* of governments.

388). Given the plethora of successful stories of applying behavioral sciences to a broad range of intractable public policy problems, governments seem to abandon past practices as they no longer consider that people (citizens and government staff) are fully rational agents. As a result, they have been intensively embracing BI and techniques as a complement or substitute for conventional policy instruments to influence and alter the behavior of both citizens and bureaucrats to help achieve policy goals and reevaluate their policies and services (Benartzi *et al*., 2017, p. 1041).

Nowadays government departments in the framework of experimental governance (i.e., the effectiveness and adequacy of public policies should be tested vigorously before they are implemented) have to be well-equipped to assimilate behavioral knowledge into their duties successfully. This responsibility has been assigned to the Behavioral Insights Teams, 'Nudge Units' and public sector innovation labs (Tōnurist et al., 2017; McGann et al., 2018; Ferreira & Botero, 2020), which have been established over the last decade in Europe, North and South America and Asia under various labels, organizational structures and functions. The aim is to incorporate BI, including nudges, into all the policy process stages (i.e., agenda setting, formulation [design and selection of policy tools], adoption, implementation and evaluation). These flexible and autonomous groups are not always institutionalized and usually operate "'at' and 'in between' organisational boundaries" (Feitsma, 2018a, pp. 53). These innovative government or non-government agencies form epistemic communities, defined as "network[s] of professionals with recognized expertise and competence in a particular domain and an authoritative claim to policy-relevant knowledge within that domain or issue-area" (Haas, 1992, p. 3). The tasks of these 'task forces' are multiple, including framing (defining and representing) complex policy problems to policymakers as they see fit through their shared beliefs about the relationship between possible policy interventions and desired effects, assisting governments to diagnose their interests, suggesting policy recommendations and solutions which are most likely to be effective, recognizing policy problems for collective debates (Haas, 1992, p. 2) and seizing politically practicable chances to cause policy change (Mukherjee & Giest, 2020, p. 1539).

Feitsma (2018a, p. 42) argues that behavior experts who are members of these teams cannot be regarded as choice architects unless we assume that the science-

policy relationship is direct, and policymakers have unbounded rationality. Nevertheless, as the science-policy is disorderly, indirect, and politicized and policy makers have bounded rationality, behavior experts could be seen as 'knowledge brokers' (ibid.), "understood as persons or organizations that facilitate the creation, sharing, and use of knowledge [whose] task is to establish and maintain links between researchers and their audience via the appropriate translation of research findings" (Meyer, 2010, p. 119). Behavior experts are thus regarded as resourceful policy actors who seek to bridge the gap between science and policymaking, by advising governments on 'what works', and testing, validating and introducing original behaviorally centered ideas into the policy process (Mukherjee & Giest, 2020, p. 1539).

Sunstein (2014c, pp. 588) suggests two approaches of institutionalizing nudges to implement them in the public policy sector. The first one is appointing officials with both knowledge and real authority in existing public institutions at the central, state or local government, who would utilize research findings in specific policy issues. This institutional setup does not entail new offices or large supplementary funding. The second approach, which is the most popular one, is establishing a new institution, such as "a behavioral insights team or a "nudge unit" of some sort", which would be structured and staffed in various ways.

Whitehead *et al*. (2014, p. 4) report the findings of a study whereby 136 states had adopted some new behavioral sciences in public policy delivery and 51 states had developed centrally directed behaviorally informed policy initiatives. The application of BI to policymaking was so successful and popular that Straßheim (2021) subsequently identified 81 nudge and behavioral units in international organizations, financial institutions and national and local governments worldwide. Faisal Naru, Head of Strategic Management at OECD, published in August 2018 a world map (see Figure 12), which displays 202 institutions inside and outside the government and multinational organizations, which apply BI to public policy although it has not been updated ever since and has some misinformation. For example, 'Nudge Unit Greece'[30] is an institution outside, not inside, government.

[30] https://nudgeunitgreece.com/en/

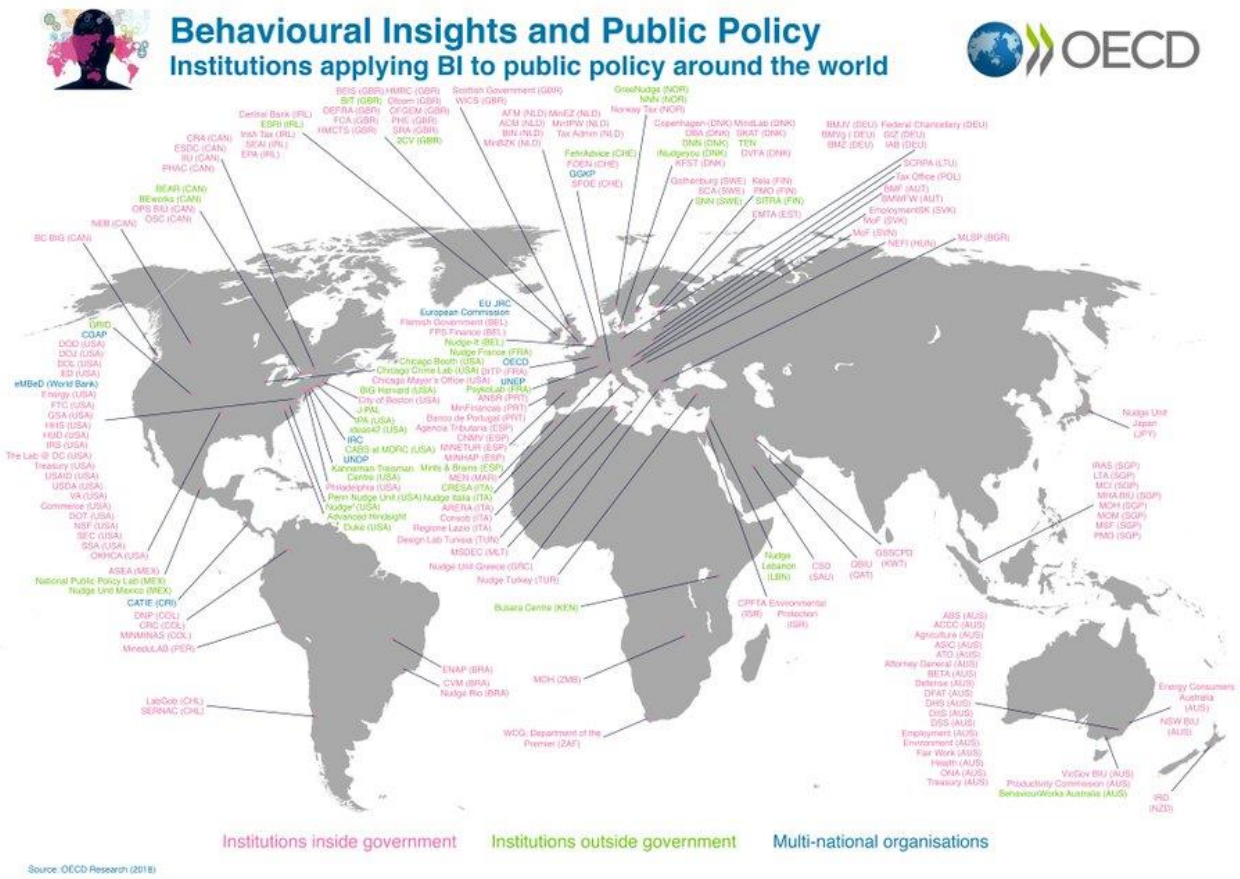

Figure 12. Institutions applying Behavioral Insights to public policy

Source: https://twitter.com/faisal_naru/status/1027162896340578304

The BI Knowledge Hub database of the OECD's Observatory of Public Sector Innovation (OPSI) seems to keep the most updated list of BI Units with an interactive map, containing 171 BI Units dispersed in 43 countries[31] and 9 BI Units, which are part of an international organization, that is a total of 180 BI Units around the world (see Figure 13), which perform projects in 42 policy areas. Australia has the highest number of BI Units (22), followed by the United States (20), the Netherlands (16), the UK (15) and Canada (11). In terms of the number of projects, the Behavioural Economics Team of the Australian Government (BETA)[32] is leading with 17 projects, followed by the Mind Behaviour and Development team (eMBeD) of the World Bank

[31] Greece is not currently included in the list. Nudge Unit Greece, a behavioral insights team form the private sector, is not registered in this database. In Greece and Cyprus, currently there is no formal team in charge of the application of behavioral insights at a central government level. It was only in 2020 that a Directorate for Strategic Planning and Behavioral Analyses was established in the Greek National Transparency Authority, which is designated as the Greek Anti-Fraud Coordination Service (AFCOS) according to article 3(4) of the Regulation 883/2013 (EU, EURATOM). Some of the tasks of the Department of Behavioral Analyses of the Directorate include drafting and adjusting methodological tools and international best practices of behavioral analyses and analyzing the deeper causes which shape deviating behaviors and actions (fraud and corruption).

[32] BETA is hosted by the Department of the Prime Minister and Cabinet but is a joint initiative of 17 agencies across the Australian Public Service. (OECD, 2017, p. 24).

with 15 projects, and the European Commission's Joint Research Centre with 11 projects.

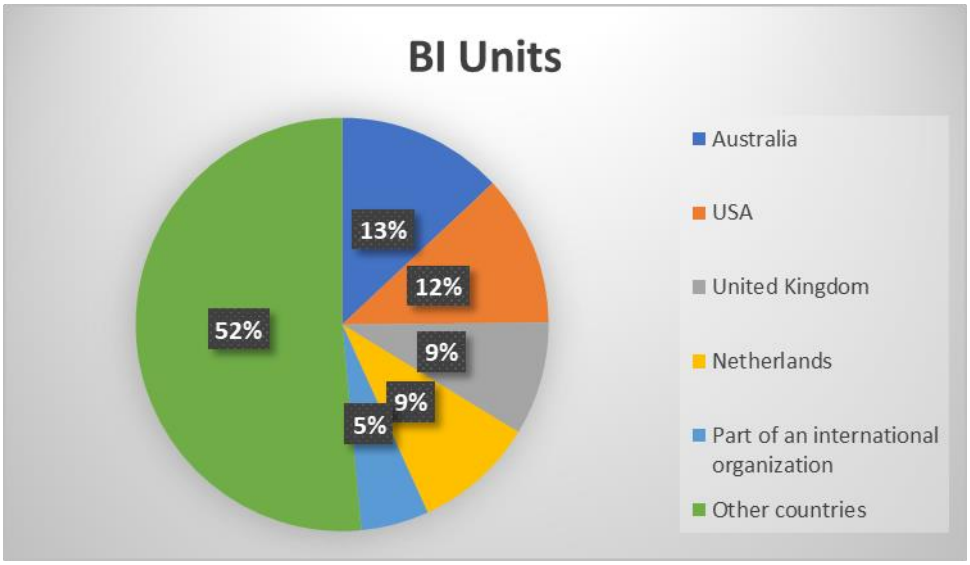

Figure 13. Distribution of BI Units across the world

Author's elaboration Data drawn from https://oecd-opsi.org/bi-units/

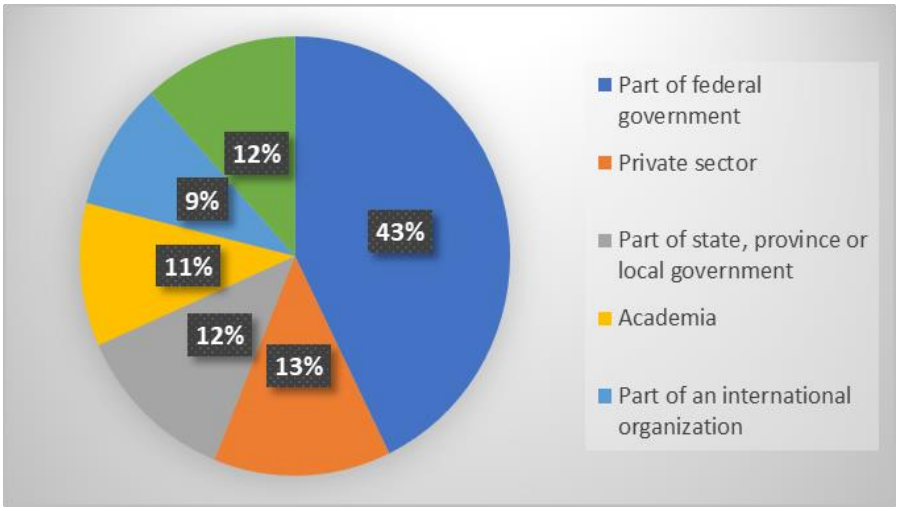

Figure 14. Forms of institutional setup of the BI Units across the world

Author's elaboration Data drawn from https://oecd-opsi.org/bi-units/

With regard to the organizational structure of these BI Units, the OECD's Observatory of Public Sector Innovation (OPSI) identifies fourteen different forms of institutional setup (see Figure 14). Out of a total of 180 BI Units, 114 BI Units (63%) are government related, 24 BI Units (11%) are from the private sector while 19 BI Units (13%) originate from universities and research institutions.

2.6 Conclusion of the chapter

In the first part of the chapter, we described the transition from the dominance of NE, associated with the figurative utility-maximizing economic man model who possesses

an unlimited capacity to make rational decisions, to the subfield of BE, which combines economics with the findings of cognitive psychology experiments and contests the supremacy of the ‘homo economicus’ model to explain the actual human decision-making and behavior. The conceptual differences between BI and BE were presented on the one hand, and the nudges, on the other hand, and the characteristics of the emerging psychological/behavioral/neuroliberal state were outlined. Then the emerging political science subfields of Behavioral Public Policy and Behavioral Public Administration, which embrace behavioral knowledge in designing and implementing public policies, and their respective roles in the policy process were explained. In the last section, we showed how democratic governments across the world had been increasingly adopting BI, including nudges, into their policymaking, by forming or institutionalizing dedicated teams or units with various designations, organizational structures, and missions, to help people lead happier, healthier and better off lives. In Chapter 3, we will examine how supranational, intergovernmental and international organizations as well as selected national governments have been adopting in real life BI into their policy initiatives, programs and public policies to address pressing wicked public policy problems.

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CHAPTER 3
THE CURRENT STATE OF AFFAIRS OF BI THINKING APPLICATIONS: SOME EXAMPLES

"*But it's the second aspect of building a bigger, stronger society that I want to focus my remarks on today, and that is the challenge of creating a culture of responsibility in our country. Now, I know I use that word a lot. Some say it sounds too much like a theoretical concept that's hard to define and others complain that it just sounds like a burden on people: an obligatory thing we have to do. To me, the idea is simple. Responsibility is people doing the right thing - by themselves and each other. It is the essential quality of the good society - of a strong society*."
Extract from David Cameron's Speech on Big Society, May 23, 2011

3.1 Introduction

In this chapter we will describe how supranational, intergovernmental, and international institutions have used behavioral economic analysis to tackle persistent global societal problems (e.g., alcohol abuse, obesity). Then the exemplary cases of the governments of the United Kingdom and the United States are selected to describe the trajectories, the organizational structures and functions of the UK Behavioral Insights Team and the US Subcommittee on Social and Behavioral Sciences respectively. More specifically, we will show how these behavioral units apply BI thinking into real-life public policies and examples of successful incorporation of BI, including nudges, into policymaking.

3.2 Supranational, Intergovernmental, and International Organizations

3.2.1 European Union

The European Union (hereafter EU) is the world's first and only supranational organization as it resembles an international organization and a federal state. Nudge thinking began gradually to be adopted by national governments and the EU as the fifth public policy instrument to supplement the traditional four types of instruments, already used by the EU public authorities (information and awareness-raising, financial incentives, legislation and exemplarity) (EESC, 2017, p. C75/28). Nudges

can be used as an alternative policy tool to sticks (sanctions), carrots (rewards), and sermons (information and persuasion) (Hague *et al*., 2019: 329). Sound policymaking takes into account the consequences of implementation during policy design: and selects the most efficacious options to reach the policy goal (including the option of non-intervention) (EC, 2017: 30). In view of the fact that the public choice architecture has often emerged at random, and only been improved and corrected over time through trial and error, policymakers are progressively applying behavioral sciences, including nudges, which include strict control testing, to infuse policy design and implementation (EC, 2017: 35).

The European Commission is one of the EU's seven decision-making institutions and its executive arm. It has been a frontrunner worldwide in adopting behavioral knowledge in EU policymaking. Baggio *et al.* (2021) identify three phases in the evolution of BI thinking inside the European Commission: 1) an exploratory phase (2007-2011), 2) a development phase (2012-2015), and 3) a consolidation phase (2016-present).

An exploratory phase

On November 28, 2008, just seven months after the publication of Thaler & Sunstein's book *Nudge*, a high-level "Behavioural Economics Conference" was organized in Brussels by DG SANCO of the European Commission, which brought together top-level policymakers from the EC's various departments and from EU Member States governments as well as international academic experts and stakeholders from business and civil society in the field of behavioral economics, to urge them to unite forces. Consumer behavior has always been a constant, multifaceted, cross-cutting policy challenge for EU policymakers, so influencing consumers' behavior was placed at the center of the debates during the conference. Given the long diplomatic relations between the EU and the United States since 1953 and that they are both two of the most prominent global players in international trade, the EU has always been vigilant about what is going on the other side of the Atlantic in the areas of economics and science. The main theme of the conference was to examine and explain why European consumers behave (i.e., shop and buy) the way

they do, what factors influence their purchasing decisions and how these individual suboptimal decisions impact the market. In her opening speech at the conference, the European Consumer Commissioner, Meglena Kuneva, being aware of the potential contribution of behavioral economics, and nudges in particular, to policymaking in Europe, made reference to the concepts of 'third way', 'libertarian paternalism', "and 'nudges', which indicates that she had studied very well the aforementioned best-selling book although she makes no mention to the book itself and its authors:

> "[…] we are not limited to only two alternative policy approaches: *laissez-faire* economics versus black letter regulation.[33] It now seems that a third way also exists, sometimes referred to as "soft" or "libertarian paternalism". This would describe an approach that "nudges" consumers towards better decisions - as judged by themselves - without infringing their freedom of choice. […]" (emphasis in the original, Kuneva, 2008, p. 4).

Indeed, on October 8, 2008, a proposal for the European Directive on consumer rights[34] (EC, 2008) incorporated some nudge-type policies, which sought to explicitly address the default bias by prohibiting the use of pre-checked boxes in in-premises, off-premises and distant contracts. For example, Article 31 on the transparency requirements of contract terms read:

> "The trader shall seek the express consent of the consumer to any payment in addition to the remuneration foreseen for the trader's main contractual obligation. If the trader has not obtained the consumer's express consent but has inferred it by using default options which the consumer is required to reject in order to avoid the additional payment, the consumer shall be entitled to reimbursement of this payment." (EC, 2008).

The aforementioned Article resulted in Article 22 on additional payments of the Consumer Rights Directive, which was adopted in 2011 and enacted in 2014 (EC, 2011).

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[33] 'Black letter regulation' refers to well-established, standard legal *rules* that are generally known and free from doubt. Source: Cornell Law School, Legal Information Institute. https://www.law.cornell.edu/wex/black_letter_law

[34] The EU adopted a new Directive on Consumer Rights (Directive 2011/83/EU) (CRD) that came into force on 13 June 2014.

A development phase

From 2012 a number of Directorates-General (DGs) began to order behavioral studies to test solutions in different policy areas while in 2014 the behavioral approach was centralized under one DG, the DG Joint Research Centre (JRC), EC's science and knowledge service (Afif *et al*., 2019, p. 40). In May 2015 the Better Regulation Agenda was launched as a Communication to warrant evidence-based and transparent EU law-making to simplify EU laws and reduce regulatory burdens. This Agenda was accompanied by the Better Regulation Guidelines and the 'Toolbox' for Better Regulation, which highlights the potential incorporation of behavioral sciences into designing and evaluating policies and laws and that "a public policy intervention may be justified when […] [b]ehaviours are biased and individuals do not decide on their own best interests." (EC, 2015, p. 85). Thus, a policy solution should intend to tackle the identified policy problem by altering directly or indirectly the behavior of those who influence it towards a desired behavior to meet public objectives." (EC, 2015, p. 122).

A consolidation phase

In 2016, a report was published, displaying a list of behaviorally informed policy initiatives in 32 European countries (Lourenço *et al*., 2016). Although behavioral capacity has existed within the JRC since 2011, in 2019, the DG JRC formed a dedicated team to support EU policymaking with behaviorally informed evidence and increase the capacity across all DGs, which was branded as a Competence Centre on Behavioural Insights (CCBI). CCBI is one of the four teams which comprise DG JCR's Unit I2: Foresight, Modelling, Behavioural Insights and Design Policy or EU Policy Lab, which has twelve members. There are currently seven academic experts with diverse backgrounds in behavioral sciences on CCBI. The activities, objectives, policy areas, and tools for gathering behavioral evidence are shown in Figure 15.

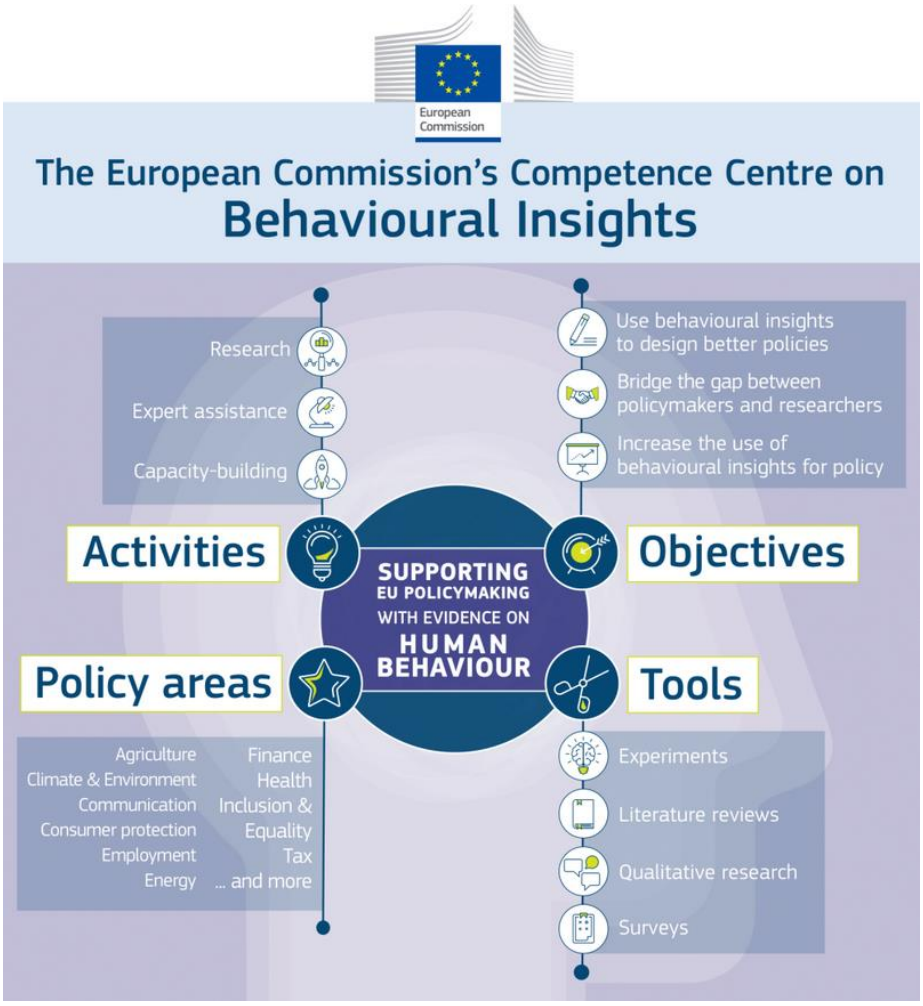

Figure 15. Infographic on the EC's CCBI
Source:
https://knowledge4policy.ec.europa.eu/sites/default/files/styles/media_full/public/ONEPAGER%20Behavioural%20insights%20infographic2-1.png?itok=JryA2Lfa

3.2.2 Organisation for Economic Co-operation and Development (OECD)

The Organisation for Economic Co-operation and Development is an intergovernmental organisation with 38 member countries, which was established in 1961, whose mission is to build better policies for better lives. The Observatory of Public Sector Innovation (OPSI) is part of the OECD Public Governance Directorate. It serves as the secretariat for the OECD's Public Governance Committee, which informs its Programme of Work. It emphasizes innovation in the very center of government. It was established in 2013 because of the increasing need for governments to embrace novel approaches in their policies to tackle society's wicked problems. It collaborates with governments, academics, industry and global NGOs

and civil society to produce forefront public sector assistance and advice.[35] OPSI currently has fifteen members. OPSI collaborates with the European Commission, through its Horizon 2020 program, to reach its goals in public sector innovation.

The Organisation for Economic Co-operation and Development (OECD, 2017) has published 159 case studies of BI applied to ten public policy areas (e.g., energy, environment, consumer protection). Responses originate from 60 public institutions representing 24 OECD member countries, the United Nations Development Programme (UNDP), and the World Bank. 82% of respondents were central government departments and regulatory and tax authorities.

3.2.3 World Bank

The World Bank Group is an international organization, affiliated with the United Nations. The Mind, Behavior, and Development Unit (eMBeD) is the World Bank's behavioral science team in the Poverty and Equity Global Practice, works jointly with governments in over 80 projects in 9 policy areas in over 50 countries, and collaborates with more than 70 partners internal and external to the World Bank to detect, devise, and assess behaviorally informed interventions. The team currently consists of eighteen members (behavioral scientists, social scientists, economists and research analysts).[36]

One of the projects consisted in conducting qualitative research (including key-informant interviews and fieldwork) in Haiti in 2019 and then utilizing nudging to remedy the structural and behavioral obstacles (e.g., state of denial, fatalistic belief, hyperbolic discounting) that restrict evacuation decisions and establish appropriate disaster readiness and response mechanisms to save civilian lives (World Bank, 2020), given the high and frequent exposure of Haiti to natural hazards (e.g., earthquakes, hurricanes) and the increased vulnerability of its infrastructure (see Figure 16).

[35] Source: https://oecd-opsi.org/about/
[36] https://www.worldbank.org/en/programs/embed/team

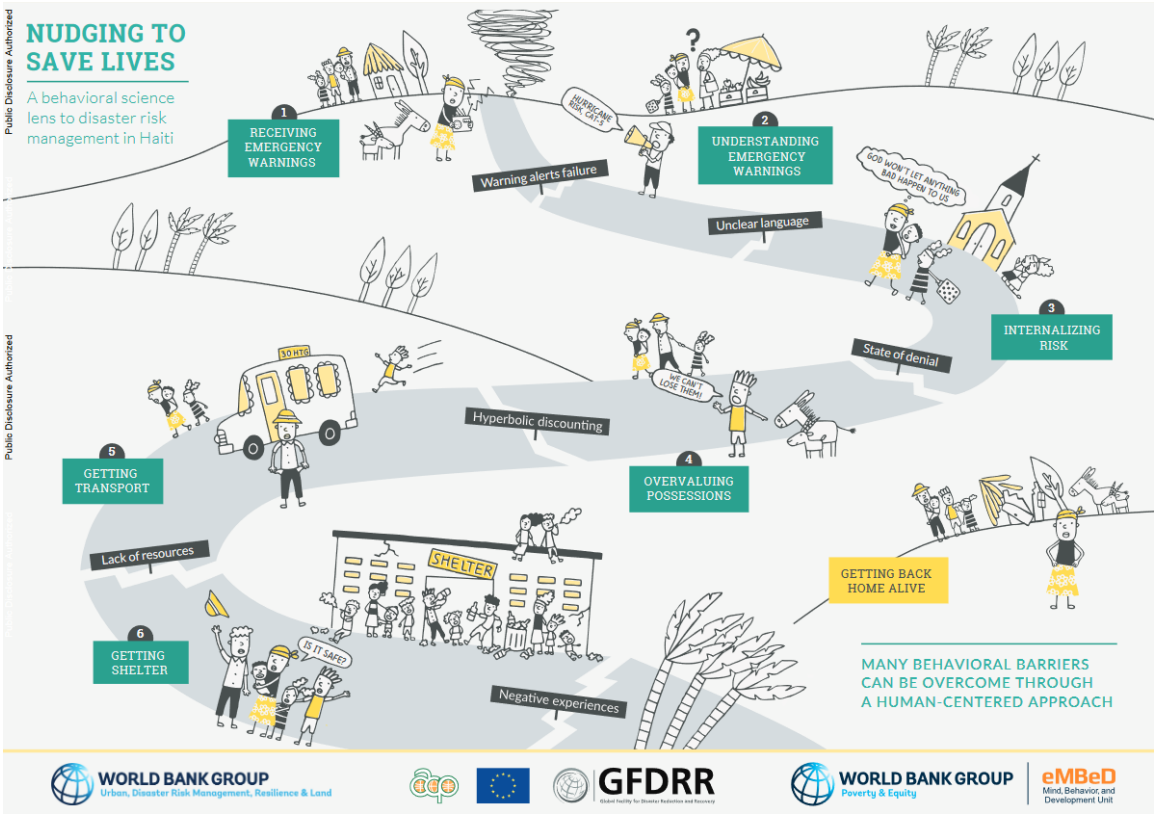

Figure 16. Infographic depicting 'nudging' to improve disaster risk management in Haiti

Source: http://documents.worldbank.org/curated/en/853661578685786381/Nudging-to-Save-Lives

3.3 National governments

Nudge was early on adopted by the Anglo-American democracies (UK, US, Australia, Canada, New Zealand and Ireland), which are also OECD Member countries because it suited well to the specific kinds of political institutions which are in place in these countries (John, 2019, p. 156). Nudge was later diffused to and worked well in other OECD countries (e.g., Sweden, Netherlands, Denmark, Japan) as well as in non-democratic regimes (e.g., Singapore)[37]. Although there are no BI teams in China's central and local governments, they nevertheless adopted strategies aligned with behavioral science research when they set up plans to curb the COVID-19 pandemic (Zhang, 2020). Therefore, customized BI teams were originally established

[37] A Behavioural Insights Unit has been established under the Research and Statistics Division of the Ministry of Home Affairs of Singapore. Source: https://www.sgdi.gov.sg/ministries/mha/departments/rsd/departments/behavioural-insights-unit The UK Behavioural Insights Team opened an office in Singapore in September 2016. It advises government agencies on new policy ideas and collaborates with private sector and non-profit organizations after running policy experiments. Source: https://gradsingapore.com/graduate-employers/the-behavioural-insights-team

in the national governments of the United Kingdom and the United States, followed by Germany, Austria, and Peru with many others adopting informal structures.

3.3.1 United Kingdom

British governments have been concerned with citizens' behavior change since the early 2000s long before the publication of Thaler & Sunstein's book *Nudge* (2008). During the British New Labour period[38] under Tony Blair's premiership in the context of a reformed welfare state and the behavioral turn in economics, whereby LP emerged as a new form of government in the UK, the Prime Minister's Strategy Unit published an instrumental document entitled *Personal responsibility and changing behavior* (Halpern *et al*., 2003), which served as an all-encompassing strategic policy framework calling for citizens' responsibilization.[39] Despite the negative feedback from the media, other Cabinet Office publications on behavior and culture change followed, such as *Achieving Culture Change* (Knott *et al*., 2008) and *MINDSPACE* (Dolan *et al*., 2010), a mnemonic, a nudge-type policy tool which supplements and enhances traditional policy tools, and which suggests a unified checklist against which policymakers can adjust their strategies to guarantee that they are making the fullest use of the insights of behavioural sciences. This report, published in January 2010, was highly influential as it prepared the intellectual ground for the broader BI approach, which manifested itself when the Behavioural Insights Team was established later that year (Oliver, 2013, p. 113; Hallsworh & Kirkman, 2020, pp. 52, 54).

[38] This campaigning label was used while the newly reformed party, which had rejected its traditional emphasis on public ownership and adopted markets economics (neoliberalism) in its Rule Book, was in government under the leadership of Tony Blair and Gordon Brown between 1997 and 2010. The New Labour's political philosophy and political marketing strategy was partly based on the concept of 'Third Way', which was developed by the sociologist and director of the LSE Prof Anthony Giddens in his book entitled *Third Way: The Renewal of Social Democracy* (1998) and ideologically instrumentalized by then Prime Minister Tony Blair in his pamphlet entitled *The Third Way: New Politics for the New Century* (1998) (Morrison, 2018, p. 168). Tony Blair had also been partly influenced by Bill Clinton who declared himself a 'New Democrat', "a different kind of Democrat", during the 1992 presidential campaign, suggesting "a centrist alternative for the party" to fracture the Republican stronghold on the White House (Hale, 1995, p. 207). The 'Third Way' is a pragmatist and populist approach which rejects Old Left and New Right positions, calling for the renewal of a civic society (Powell, 2000).

[39] This neoliberal term refers to "the process whereby subjects are rendered individually responsible for a task which previously would have been the duty of another – usually a state agency – or would not have been recognized as a responsibility at all." (Wakefield & Fleming, 2009, p. 276).

The British Coalition Government of Conservatives (David Cameron as Prime Minister) and Liberal Democrats (Nick Glegg as Deputy Prime Minister) which came to power in May 2010, partly motivated by the inferred effect of Thaler & Sunstein's *Nudge*[40] on Barack Obama's electoral campaign in 2008 and administration,[41] set up in July 2010 within the UK Cabinet Office at 10 Downing Street the Behavioural Insights Team (BIT), also known as 'Nudge Unit' (Halpern & Sanders, 2016, p. 54). Cameron's Big Society Programme borrowed from the New Labour idea of the Third Way, disapproving of the welfare state which has harmed civil society and as a consequence citizenship (Espiet-Kilty, 2016, p. 4). BIT originally comprised seven people, among whom David Halpern[42] was Chief Executive. The intention was that BIT would operate as a 'skunk works', a small group with a high degree of autonomy that works on groundbreaking projects at low cost because of tight budget constraints (Hallsworth & Kirkman, 2020, p. 57). To warrant that there was some form of independent checks and balances outside the team itself, an independent academic advisory panel was set up, which comprised Richard Thaler, co-author of *Nudge*, and other prominent behavioral academics, which would advise BIT on the ethics of its trials and work (Halpern, 2015, p. 310). BIT currently has nineteen academic affiliates, among whom is Cass Sunstein.

BIT originally had an annual budget of less than £0.5 million. In the agreed 'Programme for Government' of the new coalition government, which was based mainly on behaviorally informed policies we read this: "Our government will be a much smarter one, shunning the bureaucratic levers of the past and finding intelligent

[40] It is noteworthy that Thaler & Sunstein's book *Nudge* figured as 'required reading' among the 38 titles on the Cameron-approved summer reading list, which was chosen and sent to every Conservative MP in 2008 by Keith Simpson, then Tory foreign affairs spokesman, to help them "think more like David Cameron" (Sparrow, 2008).

[41] In 2009 Obama appointed his friend and Chicago Law School colleague, Cass Sunstein, co-author of *Nudge*, as the administrator of the White House Office of Information and Regulatory Affairs (OIRA), which had been created in 1980 (Sunstein, 2013, p. 4; Halpern, 2015, p. x).

[42] Professor David Halpern is a psychologist and civil servant who was the chief analyst in Blair's Strategy Unit from 2001 to 2004 and director of the Institute of Government from 2008 to 2010. He was also appointed as the What Works National Advisor in July 2013.Before joining government, Halpern held tenure at Cambridge and posts at Oxford and Harvard. Source: https://www.bi.team/people/professor-david-halpern/ He has been supervising the UK government's response to the COVID-19 pandemic as part of the Scientific Advisory Group for Emergencies (SAGE), focusing on behavioral changes such as intensive handwashing. On 11 March 2020 he launched the idea of herd immunity into UK policy decisions concerning the COVID-19 pandemic during a media interview in the BBC (Boseley, 2020).

ways to encourage, support and *enable people to make better choices for themselves*." (our emphasis, Cabinet Office, 2010, pp. 7-8). This phrase strongly echoes several passages from Thaler & Sunstein's (2008) *Nudge*: "Structuring choice sometimes means helping people to learn, so they can later *make better choices on their own*" (our emphasis, p. 97), "we prefer an improvement in choice architecture that will *help people make better choices*" (emphasis added, p. 137).

The objectives of the team at the time of its inception were the following (Halpern, 2015, p. 57; Hallsworth & Kirkman, 2020, p. 57):

- reshape at least two major policy areas to maximize societal benefits;
- diffuse understanding of behavioral approaches across the UK civil service, with unrestricted with no charge access to reports, toolkits and results of projects;
- reach at least a ten times return on the cost of the team.

A 'sunset clause'[43] was introduced that if BIT did not achieve those objectives within two years, "a clear, time-limited target" would automatically be closed down. In this case, it would be up to the Prime Minister and the Cabinet Secretary to choose whether to maintain the team.

BIT did surprisingly very well in its first two years of operation BIT as it "identified tens of millions of pounds of savings by testing new insights in the same way that a new drug might be tested" (Cabinet Office, 2012, p. 17). BIT often concentrated on uncontroversial, less prominent projects with a large financial impact ('low-hanging fruit') (e.g., improve tax compliance through reformulation of the reminders dispatched to people who had not filed their tax return by the due date) (Lunn, 2014, p. 31), which generated 'early wins' and convinced critics about the reliability of the methods used by BIT (Hallsworth & Kirkman, 2020, p. 58). The Civil Service Reform Plan, published in 2012 by the Coalition Government, outlined the major actions needed to make the Civil Service more skilled, less bureaucratic and provide faster services to

[43] A provision in a Bill that gives it an expiry date once it is passed into law. Source: https://www.parliament.uk/site-information/glossary/sunset-clause/

the public, and called for the adoption of behavioral science interventions by all government departments.

Given that the public sector productivity was constantly at a low level from 1997 to 2010 failing to increase, austerity measures had been in progress to cut the deficit and "policymakers and administrators started to approach BIT with potential projects, rather than the other way round" because of a growing interest in BIT's innovative work (Hallsworth & Kirkman, 2020, p. 59), the Cabinet Office announced in May 2013 that it would launch a competition to find a commercial partner for BIT (Cabinet Office, 2013; Lunn, 2014, p. 29). Three years after its establishment, BIT was the first policy unit to spin-off, to be detached from central government to become a partly privatized profit-making joint venture. This came as no surprise as the Labour and subsequent Conservative/ Liberal Democrat coalition governments had already attempted since 2008 to adopt centrally. In the wider public sector, some innovative models (mutuals and joint ventures) for public service delivery so that services are delivered better and more efficiently (Myers & Maddocks, 2016) and the entrepreneurial spirit and the autonomy of public service professionals are released. Public service mutuals are employee-led organizations that have been broken away from the public sector to provide a public service contracting back with a government agency. They are "a specific form of social enterprise" with no shareholders to pay, combining profit and social purpose (Le Grand & Roberts, 2018, p. 82).

So, in 2014 BIT became an independent social purpose company, partly owned by the UK government, Nesta,[44] which invested in a 30% shareholding, and BIT employees were given greater freedom to do things as they saw fit. After seven years, in December 2021 Nesta, the "UK's innovation agency for social good," won a competitive bidding process and acquired the remaining 70% of shares in

[44] Nesta is a registered charity in the UK, headquartered in London. NESTA (National Endowment for Science, Technology and the Arts) was a former UK government body set up in 1998 "to promote talent, innovation and creativity in science, technology, and the arts". NESTA was the UK's first ever publicly supported national endowment which was established with £250 million of National Lottery funding. In 2010 it broke away from the government. Source: https://www.nesta.org.uk/brief-history-nesta/

Behavioural Insights Limited for £15.4 million (BIT, 2021). The implied equity value of Nesta at the time of BIT's acquisition was £22 million.

Today BIT has a staff of about 250 people[45] and owns nine subsidiary businesses and offices in the UK (London and Manchester), France (Paris), the United States (New York and Washington, DC), Canada (Toronto), Australia (Sydney), New Zealand (Wellington) and Singapore. BIT collaborates with local authorities, businesses and NGOs in over 75 countries, often introducing simple and small behavioral changes to deal with policy problems and deliver enhanced public services and social impacts (e.g., an extra 100,000 organ donors signed up a year, 20% more people persuaded to consider switching energy provider). BIT also takes on projects for foreign governments, the World Bank and the UN. BIT has conducted over 1,000 projects, including over 700 randomized control trials (RCTs)[46] in many countries. The advantage of the use of RCTs is that the effects of a project can be dependably established, and any benefits can be compared with the costs incurred, which resembles the well-known cost-benefits analysis and adds credibility to the BI approach for policymakers (Hallsworth & Kirkman, 2020, p. 59). Between 2010 and 2016 it is estimated that 300-400 trials were only conducted in the UK by BIT, which was commissioned to undertake various projects by government agencies and independent charities (HM Revenue & Customs, Financial Conduct Authority, Education Endowment Foundation) (Halpern & Sanders, 2016, p. 62). BIT has a successful record of past performance across fourteen policy areas, from consumers and finance to equality and diversity, health and well-being to tax and social security. BIT seeks to convert its successful RCTs to scalable programs at the national level with quantified impacts, spread accumulated expertise and help others improve their capabilities to apply behavioral science.

Acknowledging that the COVID-19 crisis had shed the limelight on broader structural problems of the UK economy (e.g., rising inequality), BIT published in November

[45] In 2015 BIT had 60 employees and their number quadrupled within seven years (2022).

[46] "A randomized controlled trial (RCT) is a way of doing impact evaluation in which the population receiving the programme or policy intervention is chosen at random from the eligible population, and a control group is also chosen at random from the same eligible population. It tests the extent to which specific, planned impacts are being achieved." (White *et al*., 2014, p. 1).

2020 a discussion paper or manifesto entitled *The Behavioural Economy* (Broughton *et al*., 2020), which includes ten evidence-based strategies for policymakers, regulators and researchers to upgrade economic policy at the micro level (build household and job resilience), at the meso level (configure markets to drive innovation and productivity) and at the macro level (incorporate human behavior, incentives, motivations into the design of macroeconomic policy).

3.3.2 United States

From 2009 to 2012, the Office of Information and Regulatory Affairs (OIRA)[47] supervised behaviorally informed partnerships and regulatory efforts with other departments (Afif *et al*., 2019, p. 147). Cass Sunstein was the head of OIRA at the White House from 2009 to 2012. He was responsible for approving every new legislation issued by the government after a cost-benefit analysis had been made.

OIRA insisted on testing old regulations and monitoring how effective new regulations were. Sunstein sought to ease people's choices, and promote disclosure requirements to protect students, consumers and investors and private-public partnerships to decrease deaths and diseases from smoking and obesity (Sunstein, 2013, p. 10). Some of the most prominent successful examples of the new nudge-type policies used are the Credit Card Accountability Responsibility and Disclosure Act of 2009, which protects consumers from abusive and deceptive practices by credit card issuers, the Affordable Care Act of 2010, which allows uninsured patients to have access to affordable health plans and replacement of FDA's 'food pyramid' with the Healthy Eating Plate in 2011, a simple, plate-shaped symbol, sliced into wedges for the basic food groups to encourage people to build a healthy diet (Lunn, 2014, p. 26).

In 2014 the White House Office of Science and Technology Policy (OSTP),[48] part of the Executive Office of the US President, formed an informal team to convert research evidence and methods, informed by the social and behavioral sciences, into

[47] See footnote 10.

[48] OSTP was established by the US Congress in in 1976 with a mandate to advise the President on the impacts of science and technology on domestic and international affairs. It has currently 130 employees. Dr. Arati Prabhakar is the current Director of OSTP and Science Advisor to the President.

ameliorations of federal policies and programs to the advantage of the Americans. One year later, on September 15, 2015, President Obama signed Executive Order 13707 entitled "Using Behavioral Science Insights to Better Serve the American People",[49] whereby federal departments and agencies were instructed to apply BI in practice and hire behavior science experts. In addition to this, the Social and Behavioral Sciences Teams (SBST), under the cabinet-level National Science and Technology Council (NSTC),[50] was formally established (Congdon & Shankar, 2015, p. 77) with Maya Shankar,[51] a cognitive neuroscientist, as its first chairman. In 2015 a group of scientists at the General Services Administration (GSA),[52] was labeled as the Office of the Evaluation Sciences (OES) within the GSA. GSA consists of twelve staff offices. One is the Office of Government-wide Policy (OGP) which comprises seven component offices; one is OES. OES partners with agencies across the government to design and evaluate program changes, to evaluate existing programs to provide technical assistance on evaluation design. Most of the members of SBST came originally from OES[53], which indicates the perception of initially dividing the team between a political arm (White House-US Government) and an administrative arm (US Public Administration) (Hallsworth & Kirkman, 2020, p. 62). On September 15, 2015, a Memorandum was issued by the President's Executive Office (EOP, 2015), authorizing OIRA to collaborate with SBST to guide executive departments and agencies and the independent regulatory agencies on how to implement BI on public policies. In its first year of operation SBST took on some behaviorally informed projects. Some successful examples are the following: help enhance retirement

[49] https://obamawhitehouse.archives.gov/the-press-office/2015/09/15/executive-order-using-behavioral-science-insights-better-serve-american

[50] The NSTC was established in 1993 by President Clinton. It is a cabinet-level council of advisers to the President on science and technology. It is chaired by the President and managed by the OSTP. Source: https://www.whitehouse.gov/ostp/nstc/

[51] Shankar had previously joined the White House Office of Science and Technology Policy as a senior advisor in 2013. At the end of the Obama administration in January 2017, Shankar left her role at the SBST.

[52] GSA was established by President Harry Truman in 1949 to streamline the administrative work of the Federal Government. "GSA is a centralized, federal procurement, property management, policy development and information provision agency, created by Congress to improve government efficiency and help federal agencies better serve the public." Source: https://www.gsa.gov/about-us/newsroom/news-releases/gsa-receives-final-congressional-approval-to-establish-the-federal-acquisition-service

[53] Since 2015 over 100 interdisciplinary experts have been hired into the federal government. The team comprises federal employees, and academic affiliates, on loan from a university or research institution. Source: https://oes.gsa.gov/about/

security (Third Savings Plan for Federal employees) in collaboration with the Department of Defense, increase access to universities and affordability (notifying high school graduates of required pre-matriculation tasks and helping students loan borrowers to keep up with their payments) in collaboration with the Department of Education (SBST, 2015, p. XII), support consumers adopt renewable energy sources through active choices, improve understanding of climate change, support criminal justice reform helping innates who are released from prison to successfully reintegrate into their communities and assist job seekers in returning to work more quickly (SBST, 2016, pp. X-XI).

In October 2015 SBST was reconstituted as the Subcommittee on Social and Behavioral Sciences (SSBS) under the National and Technology Council's Committee on Science (see Figure 17) and was extended until April 2018. This Subcommittee was decommissioned in President Trump's administration, because it was incompatible with his governing style. It was rechartered in May 2022 in the framework of the "Year of Evidence for Action" launched by the Joe Biden

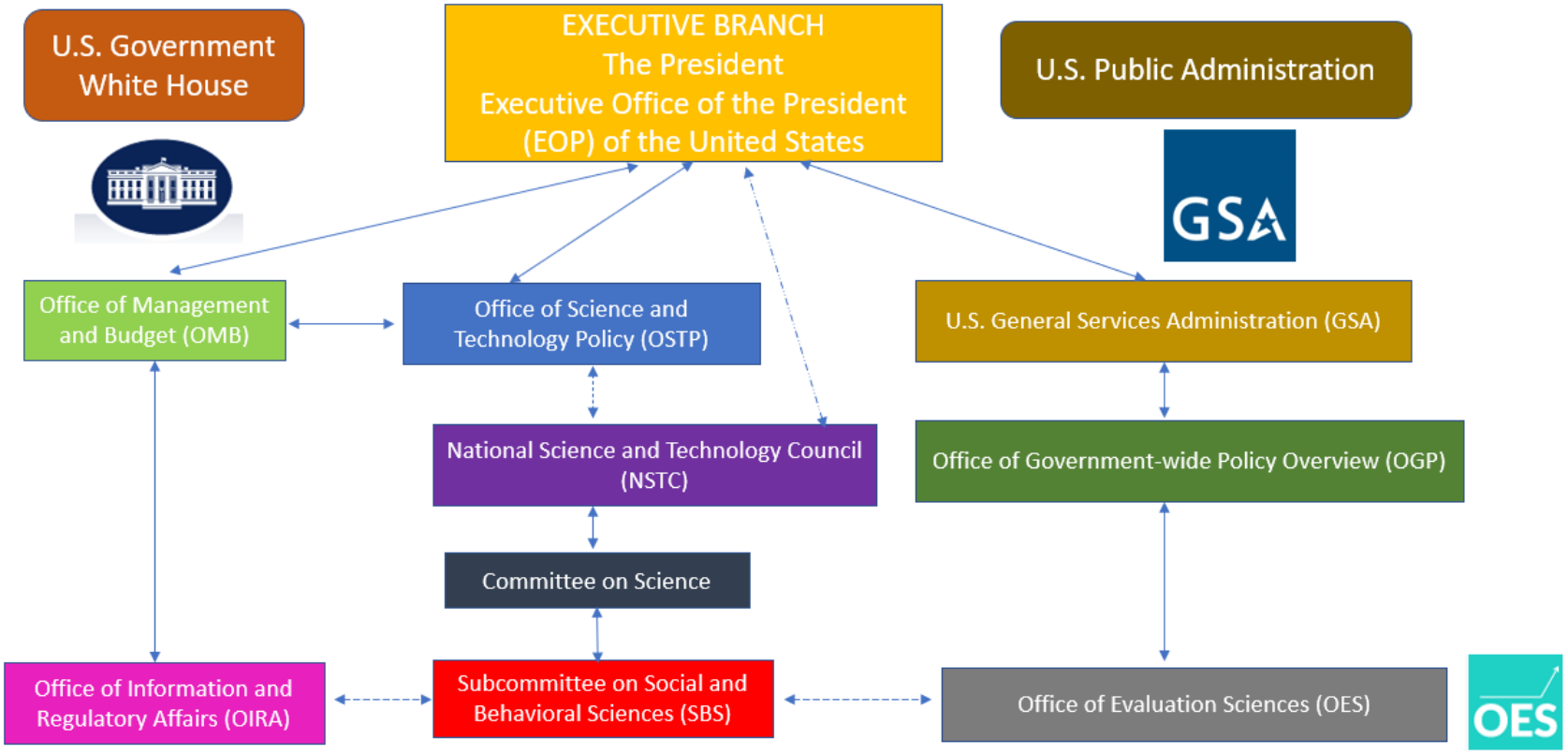

Figure 17. The political arm and the administrative arm of the US SSBS

Author's elaboration

Administration and the Presidential Memorandum on Restoring Trust in Government Through Scientific Integrity and Evidence-Based Policymaking, signed in January 2021, one week into Biden's administration.[54] The first short-term task of the Subcommittee, based on its new charter, is to deliver whole-of-government Blueprint for the utilization of social and behavioral science research to promote evidence-based policymaking, due by April 30, 2023 (White House, 2022). In August 2022 the White House Office of Science and Technology delivered guidance to make the results of federally funded research and publications publicly accessible to the American people (White House, 2022b). These actions show President's firm belief that science matters and can contribute to people's well-being as long as it remains intact from political intrusion.

3.4 Conclusion of the chapter

In this chapter, we explored how the EU, the OECD and the World Bank have managed to adopt behavioral evidence int their initiatives and policies to improve people's lives, making them happier, healthier and better off. Finally, the cases of the United Kingdom and the United States were presented as two of the most prominent examples of national governments which were the first to establish 'nudge units' or behavioral insights teams and successfully applied real-life behaviorally informed policies in various policy areas.

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[54] In January 2022 a report was issued by NCTS's Scientific Integrity Fast-Track Action Committee, which revealed that in President Trump's administration incidences of violations of scientific integrity had been observed that had shaken citizens' trust in both science and government (Witze, 2022). What seems paradoxical is the fact that although during his presidential campaign in 2016 D.J. Trump used a lot of cognitive biases, by appealing "to people's fears about immigrants [and] refugees" and demonizing 'out groups' (Fording & Schram, 2017, p. 670), his campaign team hired Cambridge Analytica, a British political consulting firm, which used behavioral sciences and data analytics such as psychological targeting to persuade non-voters to vote in favor of their client (González, 2017).

CHAPTER 4

NUDGES AND LIBERTARIAN PATERNALISM: A CRITICAL APPRAISAL

> A. Greenspan (Ex Fed Chairman): "*I made a mistake in presuming that the self-interests of organizations, specifically banks and others, were such as that they were best capable of protecting their own shareholders and their equity in the firms. I have found a flaw. I don't know how significant or permanent it is. But I have been very distressed by that fact*."
> Rep. H.A. Waxman (Committee Chairman): "*In other words, you found that your view of the world, your ideology, was not right, it was not working*."
> Greenspan: "*You know, that's precisely the reason I was shocked, because I have been going for 40 years or more with very considerable evidence that it was working exceptionally well*."
> Extract from Alan Greenspan's testimony before the US House Committee on Oversight and Government Reform, October 23, 2008

4.1 Introduction

Nudge, 'the pinnacle of behavioral economics', has been met with both excessive enthusiasm from policymakers and public policy practitioners as an alternative, revolutionary policy tool to achieve public policy goals through behavior change and harsh criticism from members of the public and academics, who question its acceptability because it is thought to manipulate people's choices and justify the politicians' flawed policies (Sodha, 2020).

In this (final) chapter, we will seek to make a critical appraisal of both the LP political theory and nudge policies on three levels:

- from a political and moral philosophy point of view (i.e., How does LP differentiate from political liberalism?; To what extent does LP's allegation of the preservation of freedom of choice is true?; Are LP's claims that nudges are easy and cheap to resist and that they preserve individual autonomy true? To what degree does LP promote neoliberalism? Can nudges protect the public welfare?);
- from an epistemological and methodological point of view (i.e., Can nudges do what they promise they can do?; Is it true that people cannot make choices reliably for their benefit?; To what extent are there conscientious, well-intended choice architects?);
- from a policy effectiveness point of view (i.e., Is a deliberative nudge more effective than a non-deliberative one?; Are the effects of nudging long-lasting or

temporary?; What are the limitations of the power of nudges?; Does transparency and awareness of nudges influence their effectiveness?; What about preexisting preferences?)

4.2 Critique from a political and moral philosophy perspective

4.2.1 Critique from libertarians or neoliberals (from the right)

Leading hard-right political or anti-perfectionist liberals (e.g., Quong, 2011) and public reason liberals (e.g., Gaus, 2011) oppose both Joseph Raz's[55] (1986) liberal perfectionism[56] – a distinctive form of liberalism which embraces autonomy coupled with value pluralism (Kim, 1996) – and Thaler & Sunstein's (2003) libertarian paternalism (LP) for being both inherently paternalistic. Quong (2011, p. 1) argues that the role of the liberal state is not: a) to define what a good or constructive life is; b) to judge about the morality of citizens' lives; or c) to guarantee that citizens lead worthier or more meaningful lives as this is a task that citizens should decide on their own. Quong (2011, p. 2) underlines that "the government should remain neutral on the issue of the good life and restrict itself to establishing the fair terms within which citizens can pursue their own beliefs about what gives value to their lives.". This means that the liberal state should make sure that a fair set of rules and institutions is established and that freedom, resources and other privileges between citizens are fairly distributed preserving a liberal neutrality, so that each citizen is provided with a just chance to attain his/her own idea of what a good life consists of. This stance of political liberalism is justified by the existence of a pluralism of disagreement among citizens in modern societies about the meaning of a worthwhile and good life. Therefore, the suggestion by LP of a state - 'choice architect', who subtly nudges people to choose what is good for them according to their own lights, is contrary to the pluralism of disagreement, whereby each citizen has his/her own conception of what a valuable life is. Further, political liberals claim that liberal perfectionist policies,

[55] Joseph Raz (1939-2022) was an Israeli legal, moral and political philosopher. In his book *The Morality of Freedom* (1986) he developed the concept of 'perfectionist liberalism'.

[56] Perfectionism embraces an objective theory (whereby *truth is independent from individual subjectivity)* about what good life or human well-being is. It advocates that the state's mission is to help citizens pursue their interests and good life and to interfere with citizens' action which do not contribute to their well-being. Plato was perfectionist in this meaning. For perfectionists there are things which are good in themselves for a person independently of her wishes and attitudes (Chan, 2000, p. 5; Arneson, 2000, p. 37). Aristotle taught that the *polis* can best advance the good life (eudaimonia), a good and valued way of living that can create happiness, vitality and wellness (Ryan & Martela, 2016). "Perfectionist considerations refer to judgements regarding which virtues, activities, relationships, goals, ideals, attitudes, or values contribute to, or are essential to, a worthwhile, excellent, or otherwise valuable human life." (Quong, 2011, p. 12)

and by extension, libertarian paternalist policies, even if they are non-coercive, are inevitably paternalistic because they both suggest that the state holds a negative assessment of citizen's faculties to make good choices and manage their own lives (Quong, 2011, p. 9).

4.2.2 On the allegation of the preservation of the freedom of choice

LP is alleged by its proponents to be 'liberty-preserving' because under its policies no use of coercion is made (i.e., nudges are non-coercive policy tools while bans, prohibitions and mandates are coercive policy instruments) and because "people should be free to do what they like" (Thaler & Sunstein 2008, p. 5). However, Grüne-Yanoff (2012, p. 636) claims that although LP is non-coercive by default, a lot of LP policies restrict individuals' liberties either because the regulating body's despotic power is reinforced over the regulated or because they meddle with people's decision-making procedures.

Nudge policies are thought by detractors of nudges to be morally wrong because we, as citizens, are unable to regulate our subjection to nudges or how they influence us, so, they limit our fundamental freedom of choice, contrary to Thaler and Sunstein's claim for the preservation of the individual's freedom of choice. But what do Thaler and Sunstein really mean when discussing freedom of choice?

On the one hand, if freedom is conceived as negative liberty (associated with J.S. Mill's political liberalism) or intrinsically valuable, understood as the *absence* of barriers – that is to say, what is important is the freedom to behave according to one's own desires without any external obstacles, because choosing freely always means choosing well – nudging is not ethical, even if the ultimate choice belongs to us. This dissent is logical because "if we were just as free to choose after being affected by a nudge as we were before", then, there would be no need to use nudges at all (Zoido-Oses, 2014).

On the other hand, if freedom is conceived as positive liberty (as Rousseau, Hegel and Marx advocated it) or instrumentally valuable, understood as the *presence* of autonomy, self-determination – that is to say, what is important is the freedom to act according to one's own desires without any internal obstacles - nudging is also unethical, because it undermines individual's autonomy. By failing to acknowledge

these internal barriers to their liberty, citizens cannot achieve positive freedom, that is their self-actualization and empowerment.[57] This puts into question the alleged inherent empowering capacity of nudge. Nevertheless, some studies (e.g., de Ridder *et al*., 2020) showed that nudges do not threaten autonomous choice as much as critics sometimes argue.

Further, Thaler and Sunstein (2008) may be making exaggerated claims for the degree to which their nudge theory is truly libertarian because nudge seems to have better results when people do not realize that their behavior is being affected (Goodwin, 2012, p. 89). For radical leftists, the nudger or choice architect subconsciously manipulates the individual, takes advantage of System 1 automatic, intuitive nudges, that is, the cognitive defects in human judgment and decision-making, - which nudges are supposed to correct - and seeks to replace his or her judgment with the nudgee's own judgment. This paternalistic intervention does not allow the individual to take control over System 2 conscious, logical thinking, that is, over his or her deliberative skills and capacity to make choices. Nevertheless, Goodwin does not mention that there are also System 2 nudges, "which are educative and target or benefit from deliberative processing" (Sunstein, 2016, p. 123).

4.2.3 On the use of the term 'paternalism'

Thaler and Sunstein (2008) give a wrong idea of the term 'paternalism' as they do not use its standard meaning: "the *interference with a person's liberty of action* justified by reasons referring exclusively to the welfare, good, happiness, needs, interests or values of the person being coerced." (Dworkin, 1997, p. 62, our emphasis). To interfere means entering into or taking part in the concerns of others.[58] Instead, they argue that "a policy is "paternalistic" if it tries to *influence choices in a way that will make choosers better off*" (Thaler & Sunstein, 2008, p. 5, our emphasis), which means that a policy is qualified as 'paternalistic' if it aims at doing good, beneficence, to decision-makers (Anderson, 2010, p. 372). However, Dworkin (1988, pp. 121-127) refers to J.S. Mill, who justifies state paternalistic limitations on liberty to hinder

[57] 'Empowerment' is defined as "s an iterative process in which a person who lacks power sets a personally meaningful goal oriented toward increasing power, takes action toward that goal, and observes and reflects on the impact of this action, drawing on his or her evolving self-efficacy, knowledge, and competence related to the goal." (Cattaneo & Chapman, 2010, p. 647).
[58] https://www.merriam-webster.com/dictionary/interfere

damaging self-centered behavior only if someone is uninformed about specific dangers which demand direct action or if he/she is provisionally insane. Therefore, Thaler and Sunstein seem to downgrade the likely criticism of their theory from political liberals and waffle on the widely accepted meaning of the term 'paternalism'. Throughout their book *Nudge* the term '(soft) paternalism' is used in the sense of charity instead of interference, and refers indiscriminately to all cases of nudges, even if their use is not justified by the individual's misinformation or non-permanent dementia.

4.2.4 On the claim that nudges are easy to and cheap to resist

When policymakers introduce new nudges to bring a policy change, they should ensure that the people being nudged can resist nudges cheaply (at nearly zero cost) and easily. Nevertheless, evidence shows that this does not seem to be the case. Anderson (2010, p. 373) underlines that Thaler and Sunstein admit that nudges are quite effective, that is to say they succeed in their intended target-goal, and that we, as individuals, cannot resist them as we are cognitively myopic and defective. We cannot even observe the influences we undergo when we expose ourselves to nudges. However, this assertion undermines Thaler & Sunstein's claim that nudges are easily resistible. The authors do not provide solid, robust, empirical evidence that people can abstain from the suggested policy nudges without trouble and at nearly zero cost.

4.2.5 On the autonomy preservation claim

Nudges are thought to be manipulative because they take advantage of people's limited mental resources (i.e., limited attention, willpower, cognitive abilities) and unstable preferences, lack transparency and can cause unintended effects. But to what extent can nudges undermine individual autonomy or peoples' agency? Anderson (2010, p. 374) stresses that the respect for the autonomy of those being nudged is minimally preserved because paternalism inherently reduces the individual autonomy.[59] If autonomy is conceived as self-governance, this implies that citizens are rightfully permitted to have a chance to consent or dissent with governmental paternalistic interventions, such as nudges. Respect for citizens is only mentioned

[59] Individual autonomy in moral and political philosophy is "an idea that is generally understood to refer to the capacity to be one's own person, to live one's life according to reasons and motives that are taken as one's own and not the product of manipulative or distorting external forces, to be in this way independent. It is a central value in the Kantian tradition of moral philosophy, but it is also given fundamental status in John Stuart Mill's version of utilitarian liberalism" (Christman, 2020).

once in a book of 250 pages in the last chapter entitled “Objections’: “The government should respect the people whom it governs, and if it adopts policies that it could not defend in public, it fails to manifest that respect.” (Thaler & Sunstein, 2008, p. 242). This means that the authors prioritize throughout the book the optimization of outcomes for the nudgees while the respect for their autonomy is relegated to a secondary concern. Ultimately, if those being nudged agreed beforehand with every nudge which they were subject to, it would no longer be necessary for Thaler and Sunstein to use the term ‘paternalism’ in their political philosophy project.

Nudging is thought to weaken personal autonomy (e.g., freedom of choice, volitional autonomy, rational agency), be manipulative, violate human dignity, and intercept more significant structural reforms. Schmidt & Engelen (2020, p. 4) underscore that when we are exposed to nudging, we lose our autonomy, - understood as “the control an individual has over her own evaluation, deliberation and choice” (Hausman & Welch, 2010, p. 128) – we stop having the control of our choices and actions as these do not represent our own independent and authentic wishes. This is mostly the case with the covert, non-transparent, subconscious System 1 nudges rather than with the overt, transparent, conscious System 2 nudges.

For a decision to be regarded as autonomous, the following three generally accepted criteria should be fulfilled concurrently (Felsen *et al*., 2013, p. 203). The decision should be:
1) congruent with an individual’s conscious, higher-order/first-order desires/volitions;
2) rational, made with adequate time and information to permit reflection; and
3) free from surreptitious external influence
However, in the real world it is practically impossible for these requirements to be met at the same time.

Schubert (2015) thinks that nudging does not compromise personal autonomy but that it rather risks lessening the power of people’s agency (i.e., their ability to engage in creative self-constitution over time), whereby self-constitution is understood *as the people’s efforts to constitute themselves as the authors of their own movements and choices and make themselves into the peculiar people who they are (Korsgaard, 2009 p. xii).*

4.2.6 On the assumption of the promotion of the neoliberal state

Some scholars (Bradbury *et al*., 2013; Carter, 2015; Tyers, 2019; Gane, 2021) think that nudges, encapsulated in the political project of LP, although they are ideologically neutral, that is to say they are 'neither left or right', are inextricably associated with neoliberalism and the prevailing neoliberal state. Tyler (2019, p. 333) thinks that LP is unduly liberal and inadequately radical in policy terms, and that ideologically it exemplifies a broader neoliberal program. Kasdan (2020) argues that neoliberalism in the executive branch is accompanied by the active removal of government control and a lack of confidence in the administrative state. As social protections are reduced, there is worry that individuals may be vulnerable to asymmetric information which will affect their decision-making, to the detriment of both their own and their general well-being.

Behavioral thinking, including nudges, gained popularity in policymaking after the 2008 financial crisis and economic stagnation,[60] as it was introduced by the US and the UK governments against a background of an incessant assault on public services and the welfare state. Welfare states refer to wealthy states which combine capitalism with selective pinches of socialism, where welfare state institutions, such as health and education, seek to diminish the economic costs of insecurity, produced by nature and by the market (Garfinkel *et al.*, 2010, p. 2). For instance, the UK Coalition-led government, which came to power in May 2010, had to respond immediately to the recession by adopting austerity policies to reduce drastically its budget deficit, which consisted of cutbacks in benefits and services burdening the most vulnerable social groups (e.g., low-income families, women) (Taylor-Gooby, 2013, p. 1). These austerity policies seem to be aligned with the libertarian tenets of Thaler & Sunstein's soft paternalism program, which is deeply neoliberal as it seeks to:

- minimize the scope and range of the welfare state because it is not cost-effective and thus no longer necessary;
- both restrict the powers of the state on the market and release corporate power;
- glorify the individual consumer and consumer freedom;

[60] Neoliberals claim that this crisis originated "not from the failures of markets per se but from the irrationalities of market participants and/or government interventions […]" (Gane, 2021, p. 139).

- give personalized solutions to the societal problems, engendered by the former;
- responsibilize citizens, who should look after themselves more because they can no longer rely on the so called 'nanny state'[61] and its support (Gane, 2021, p. 138).

The behavioral movement, comprising behavioral economics, behavioral public policy and behavioral public administration, has been severely criticized for being the most recent manifestation of neoliberal governmentality, in the Foucauldian sense of the term (e.g., found on the prevalence of market mechanisms and the restricted action of the state), which characterizes advanced liberal democracies (Straßheim & Beck, 2019, p. 1). BI in public policy are thought to embody all the features of a 'post-democratic' or 'post-political' age. The concept of 'post-democratic' is used by the French philosopher Jacques Rancière as the modern denial of politics (Kapferer, 2003, p. 145). Postdemocracy refers to the supremacy of electoral politics over other types of civic participation and the permeating impact of business (Laffin *et al*., 2014, p. 772). Hall (2013, p. 1103) claims that nudging and social marketing, a broadened concept of marketing linked with planned social change and social objectives (Chriss, 2015, p. 56), are attentively connected with 'new governance' and new modes of governance. The BI and interventions seem to share a lot of common features with the New Public Management, which is closely associated with the first-wave neoliberalism. Apart from the fact that they both emerged in the 1980s, these features include the following: the inherent virtues of the market, the scientization[62] of public decision-making processes and the enhanced role of experts in public policymaking, which adds trustworthiness to policymakers and politicians (Marcussen, 2011; Christensen & Lægreid, 2022), depoliticization,[63] marketization, and agencification, aiming at unbundling the government, that is to say disaggregating and rationalizing departments and ministries into smaller executive agencies, statutory authorities and quangos (Pollitt & Talbot, 2004).

[61] "Nanny state is associated with coercive paternalism, and it is defined as "government making decisions for people that they might otherwise make for themselves, especially those relating to private and personal behavior." (DeMaria, 2013, p. 2109).
[62] Scientization refers to the reification and normalization of scientific language and knowledge (Moran & Green, 2021, p. 124.
[63] 'Depoliticization' is defined as "the range of tools, mechanisms and institutions through which politicians can attempt to move to an indirect governing relationship and/or seek to persuade the demos that they can no longer be reasonably held responsible for a certain, issue, policy field or specific decision." (Flinders & Buller, 2006, p. 55).

4.3 Critique from a methodological perspective

4.3.1 On the assumption that people do not make choices dependably in their best interests

People do not always make the best or even good decisions; we all make foolish choices occasionally. But they can be characterized as foolish only if they are compared to our interests, and the only people who can make those characterizations are *us* (White, 2013, p. 80). *"No one can possibly know our choices are bad except us"* (White, 2013, p. 69, emphasis in the original). Therefore, the epistemological problem with nudges derives from the built-in weakness of policymakers to have certain knowledge of the genuine interests of the nudgees (the nudged individuals) and of what is good for them (Gane, 2021, p. 135, Schmidt & Engelen, 2020, p. 7), much less that of the population on the whole (White, 2016, p. 22; White, 2019, p. 322). This is because each person perceives certain important issues such as happiness and health in various ways and mixes them with other significant or competing ends or goals, depending on the context of each option situation. This means that, by their very nature, nudges can only serve a singular interest, end or goal at a time, and thus, their scope is unavoidably limited.

In addition to this, nudges seem to ignore the fact that people may voluntarily wish, depending on the circumstances, to behave in an altruistic manner to assist others without expectation of reward and moderate their search for self-interest. This may happen because of people's moral codes and belief in universal ideals or virtues such as justice and freedom, which displace issues of preferences, and thus restrict the courses of action that a person will take (White, 2016, p. 23; White, 2019, p. 320). However, sometimes although people have numerous subjective and internal interests of various kinds, they do not inevitably try to attain all of them in every decision-making setting and make decisions based on uncomplicated preferences. Therefore, in the cases above, nudges seem to be not only inefficient - because at a given time, they cannot fully grasp the complexity of human preferences, which change over time, - but they may also have inadvertent and harmful impacts on other priorities that the individual may consider as much – if not more - important than the one aimed by the nudge.

In the light of the above, the core epistemic and practical defect of nudge policies is that they cannot perform what they allege they can do: aid people in making better decisions for their own benefit that *they* would like to make (White, 2013, p. 79). Nudges knowingly employ the same cognitive limitations that prompted them originally. More specifically, nudges do not require people's cogitative abilities because they do not aim at improving people's decision-making abilities; instead, they exploit these cognitive biases to bypass rational choice by subtly steering people to the desired direction, often without individuals being aware of the nudge (White, 2016, pp. 26-27). Therefore, nudges may imperil personal autonomy on two different dimensions: a) by foisting policymakers' subjective perceptions of what they think is suitable for the people, thereby intervening in people's idea about their future good life and affecting their reflective abilities, and
b) by swaying people's pettier habitual decisions[64] and how people make them (White, 2016, p. 25).

The fact that people cannot easily resist the delicately devised choice architecture, imposed by nudges, and they eventually change their preferences does not prove that they are really making better choices for themselves. Still, it simply shows the efficacy of the designed default choices on people's final choices. People are in no way motivated by nudges in the form of defaults to improve their internal decision-making mechanism because the actual individual change of behavior is not the result of a deep deliberative process. This occurs because individual preferences and isolated ways of thinking associated with nudges are prioritized over collective deliberation and thinking. In addition to this, the fact that nudging prevents people from committing errors when nudged and from learning from one's mistakes:

- decelerates social learning by decreasing personal responsibility (Mills, 2013, p. 34) and
- leads to an individual cognitive stagnation and a vicious circle, whereby people will be thus inclined to make more 'bad choices' and will constantly need paternalistic interventions (White, 2016, p. 27).

4.3.2 On the assumption of conscientious nudgers or choice architects

Thaler and Sunstein (2008, p. 12) warn individuals and potential choice architects against the possible danger of 'bad choice architecture' and claim that freedom of

[64] See Chapter 1 supra for the distinction between pro-self-nudges and pro-social nudges.

choice is the best protective measure to remedy this shortcoming. Thaler (2015, 2018) acknowledges that there can be evil nudges or ‘sludges’ or ‘phishing’ in the private and the public sector as the same methods can be used for both well-intended and malevolent purposes. He underlines that evil nudging in government is not more dangerous than in the private sector just because government monopolizes coercive power. He justifies his opinion saying that if a government embraces bad policies and nudges, it can be removed from office in the next competitive election, so it has no reason to do this.

Nevertheless, Thaler fails to mention that the US Federal Reserve, although it had the authority, it facilitated easy credit by preserving interest rates too low beginning in 2001 and did not prevent incautious home loans by regulating mortgage rates and complex financial derivatives, which triggered an uncontrollable rise in the price of houses (White, 2009). This does not mean that the Fed had bad intentions and wanted to hurt deliberately the US financial system and bank borrowers. Apart from private blunder and thoughtlessness, the 2008 financial meltdown was undeniably also the result of the all-seeing Alan Greenspan’s[65] blinders and cognitive biases, who was overconfident about the free-market forces and did not see the credit crunch coming. The aforementioned example shows that even (benevolent, expert) social planners are not infallible, as they can sometimes fall prey to heuristics and cognitive limitations because they are humans.

Thaler encourages nudgers to nudge for good because their mission, by default, is to ensure that individuals preserve the freedom of choice when they are presented with a predefined choice setting and make choices that will benefit them. He also seeks to persuade people that that they should trust the expertise and sound judgment of the nudgers because they are by nature benevolent and conscientious (Gane, 2021, p. 135). Nudge advocates claim that soft paternalistic interventions are fundamentally ‘asymmetrical’ in their impacts, which means that they would only do good to people by increasing their well-being but would never harm them by decreasing it (de Ridder *et al*., 2022, p. 350).

Nevertheless, Gane (2021) thinks that this stance is highly problematic. How can we be sure that choice architects will not be plagued by the same heuristics and

[65] He served as the 13th chairman of the Federal Reserve from 1987 to 2006.

cognitive biases as the nudgees, the people they are supposed to help? Does the fact alone that they are behavioral science experts immunizes them against the irrationalities of their being humans? It seems that it does for Thaler and Sunstein. Gane (2021, p. 136) is wary of the power of nudges, which should not be only seen as neutral policy tools but also as psychological instruments, which may be exploited for political necessities.

Gigerenzer (2015a, p. 376) seeks to debunk the prevailing assumption of LP that choice architects (e.g., the government) are considered, by design, conscientious, ideal, well-intentioned philosopher-kings - Plato's version of the good ruler (Boulet, 2014) - who care about their nudgees. Nudging people into what is in their best interests presupposes that nudgers really possess a sound and full knowledge about what is beneficial for others. Nevertheless, this presupposition includes an unsettled internal inconsistency, which is hard to resolve. On one side, nudgers are thought to be liable to the same cognitive limitations as usual people. On the other side, they are assumed to be rational and perceive people's real needs and wishes. Therefore, if there are no fully rational agents because of cognitive limitations and biases, as behavioral economists claim, how can choice architects guarantee that they are able to elicit and detect people's genuine wants and goals?

In addition to the above, Gigerenzer (2015a, p. 376) mentions that citizens could be benefited from nudges if choice architects met the following requirements:

1. they should not perform repeatedly defensive decision-making,[66]
2. they should grasp a scientific proof,
3. they should have no antagonistic interests, which means that they should ignore one's private interests and biases and remain impartial and fair with regard to the preferences and interests of the different persons whose well-being they are evaluating (Sugden, 2013, p. 521).

In Western countries, these requirements are not always easy to meet, therefore, special attention should be given because choice architects might consciously or unconsciously harm the nudgees for any of the reasons mentioned above. Let us go

[66] "Defensive decision making occurs when a manager ranks an option as the best for the organization yet deliberately chooses a second-best option that protects him or herself against negative consequences" such as potential lawsuits (Artinger *et al*., 2019).

back to Thaler & Sunstein's fictional scenario where Carolyn is a K12 [67] School Canteen Foodservice Director (a 'choice architect' in nudging terms) in an East Coast state. The National School Lunch Program (NSLP) of the U.S. Department of Agriculture (USDA) (also a 'choice architect') provides low-cost or free lunches to children in public and non-profit schools. The School Nutrition Association (SNA) (also a choice architect), headquartered in Arlington, Virginia, is a national, nonprofit professional organization that provides high-quality, low-cost meals to students in every state across the United States.[68] Cool School Cafe® is an industry partner of SNA, a company which markets processed food products, and which provides foodservice support to school foodservice directors, and a platform to enhance child nutrition programs. It is headquartered in Becker, Minnesota. It is currently the leading K-12 foodservice loyalty program in the United States (see Figure 18).

Figure 18. Screenshot of the homepage of Coolschoolcafe®

Source: https://coolschoolcafe.com

Carolyn, as a school foodservice manager and a purchase decision-maker, once she has enrolled in Coolschoolcafe®, she can start placing orders and collecting redeemable points depending on the quantity and the food items ordered from each member manufacturer. The snack food brands are Cool School Café® member

[67] K–12 means from kindergarten to 12th grade. It is an American English expression that refers to the time span of publicly supported primary and secondary education in the United States.
[68] Source: https://schoolnutrition.org/about-us/ It is estimated that almost 30 million students eat school lunch every day in the United States.

manufacturers (see Figure 3). Participating districts in the US gain access to the Cool School Cafe® bonus list, qualifying product information, and special offers. Carolyn's district earns Cool School Cafe® bonus points every time she buys snack foods from qualifying brands, which have joined the program. Once an order is placed, points are automatically registered into each district's account. Then Carolyn can redeem the Cool School Cafe® points that she has collected with various rewards to enhance her school canteen meal programs and menus. She is also entitled to obtain rewards by buying specific brands' qualifying snack foods (e.g., cookies and crackers, tortilla chips, flips and pretzels, potato chips) through the Cool School Cafe® reward system. The prerequisite is that she should place them in the school canteen snack rack, by following specific planogram[69] tips from the manufacturers.

The aforementioned practice seems to implicitly violate Gigerenzer's first, and third requirements listed above. Firstly, USDA, SNA and Carolyn – as joint choice architects - seem to practice defensive decision-making, because although they may rank fresh vegetables and fresh fruit option as the best food option for the school menus, they deliberately choose a second- or third- best option (the inclusion of packaged processed snack foods in the school menus) that protects them against likely negative repercussions, such as strong reactions from the colossal US snack food industry because of a likely huge loss of revenue if snack foods stopped being served at school canteens, which could possibly heavily impact on the American economic and political life. Children and teenagers are an important segment for snack manufacturers while the US snack market increased its sales by 30% from about $116.6 billion in 2017 to an estimated $150.6 billion in 2022 due to a change in eating habits worldwide (Wiener-Bronner, 2022).

[69] "A planogram is a diagram that shows how and where specific retail products should be placed on retail shelves or displays in order to increase customer purchases." Source: https://www.techtarget.com/whatis/definition/planogram

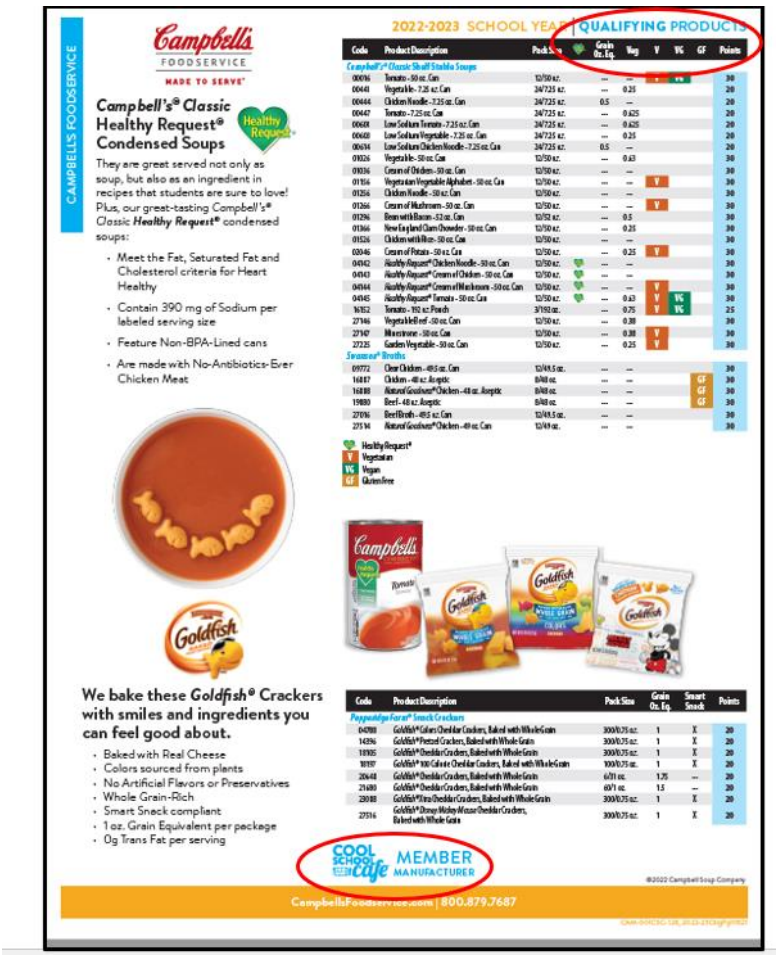

Figure 19. Campbell's® Foodservice: Qualifying products and points awarded for the school year 2022-2023

Source: https://www.campbellsfoodservice.com/wp-content/uploads/2021/08/cool-school-caf-2022-23.pdf

It is obvious that USDA, SNA and Carolyn know that there are much healthier options than snack foods to be included in the school meal programs; nevertheless, they decide to nudge students into choosing healthy food through a food arrangement (choice environment) on the shelves of the school cafeteria.

Secondly, USDA, SNA and Carolyn seem to be heavily affected and biased by third parties (private companies) in their food purchase decisions concerning the meal programs offered in the schools of Carolyn's district. Therefore, allured by the strong economic incentives provided by the snack food manufacturers, they are unable to retain the required impartiality and lack of bias when they design the choice setting, the school meal programs. Instead of allowing school foodservice managers to join snack food brands' loyalty programs to earn bonus points on the condition that they buy a specific range of snacks and place them at special snack racks in the school

canteens, the USDA could ban altogether these food products which are high in fat, salt and sugar if it wished to promote the students' welfare and reduce childhood obesity in the United States. Of course, libertarian paternalists would argue in this case that the nudgers (USDA and Carolyn) know well children's and teenagers' true and genuine eating preferences, their love for tasty snacks, that is why they seek to satisfy these preferences and preserve the freedom of choice.

4.3.3 On the assumption that paternalism is inevitable

Sugden (2008, p. 229) claims that, contrary to Thaler & Sunstein's (2008) belief that paternalism is unavoidable, "there *is* a viable alternative to paternalism" (emphasis in the original), the markets, and that incoherent individuals' preferences do not justify the use of paternalistic interventions, like nudges. Soft paternalists assume in advance a specific conception of normative economics, that is to say there is an omniscient, ideal, benevolent choice architect or despot, who is responsible for collecting and arranging information about the preferences of the individuals and their prosperity in a choice setting, and who is subsequently directed by that information to advance the general social good. This implies the adoption from soft paternalists and nudgers of a normative discourse about society (what society ought to do) to evaluate "what is good or right, from single, neutral point of view" (ibid.). Nevertheless, this conviction should be rejected because in real life no single mind can possess and use the knowledge to produce a rational economic ranking of preferences and thus, we should turn to how knowledge is actually distributed in society among individuals and how these individuals perceive the world form their own standpoint (Sugden, 2008, p. 230). Sugden (2013, 2018) argues that incoherent individual preferences should not be seen as "a kind of corrupted data" which requires correction and optimization. This is because markets can incorporate these preferences. Sugden adopts James Buchanan's[70] contractarian approach, whereby markets can function on the non-paternalistic principle of the Humean mutual benefit found in voluntary contracts. Every voluntary exchange in a society is a test to obtain mutual advantage, which permits us to thrive in our own ways (Hardin, 2003, p. 41).

[70] James McGill Buchanan Jr. was an American economist who was awarded the Nobel Prize in Economic Sciences in 1986 "for his development of the contractual and constitutional bases for the theories of political and economic decision-making (public choice)" (Nobel Prize, 1986).

4.4 Critique from a policy effectiveness perspective

How effective are behavioral (choice architecture) interventions or nudges in public policies across techniques, behavioral domains, and contextual study characteristics? Can they be quantified? Some researchers and policymakers praise the benefits of nudges and others contest how they are used and whether they are effective in cost and benefit terms. How important are the changes advanced by the methods and techniques of changing behavior? Are these changes temporary or ongoing? Does spending public money on behavioral interventions is cost effective compared to rational choice methods? Is it necessary for governments to require public approval for the more widespread use of such techniques (John *et al.*, 2018, p. ix). This section will seek to answer some of the questions mentioned above.

4.4.1 Non-deliberative nudges vs. deliberative nudges

John *et al*. (2022) conducted a survey experiment with UK adult respondents in two policy areas to test whether Type 1 default nudges and Type 2 deliberative nudges are backed by public opinion, compared with top-down regulation and free choice. Their evidence shows that this is true and that contrary to expectations, there is no difference between a non-deliberative, System 1 nudge and a deliberative, System 2 nudge because citizens cannot see the difference between the two types.

However, John *et al.* (2011) and John (2018) have argued that nudges sometimes are most effectual and powerful if they comprise a degree of deliberation. To this end, the authors suggest a ‘think strategy’ as an alternative policy to nudge, whereby behavior change can only be achieved through extensive debate and reflection from citizens. The civic involvement, the collective decisions, and the common consensus about expected behaviors, which echo Dryzek’s appeal for deliberative democracy (2002), especially with regard to controversial policy issues, might help governments all over the world to legitimize their policies and mitigate citizens’ mistrust or decreasing trust towards politicians and public servants (Marcussen, 2011). This is imperative as governments alone are objectively incapable of providing solutions to the rising global challenges we face as a society (e.g., over-consumption, increasing rates of obesity- and alcohol-related illnesses). The authors also stress the fact that behavior change interventions designed at the local level tend to be more successful compared with large-scale national interventions because they take into consideration local context and needs. Thus, localism and decentralization work

better as opposed to centralism, that is nationally imposed nudges to induce responsible behavior.

4.4.2 On the sustainability of the effects of nudges over time

Are the effects of nudging preserved after it has been removed? What are the behavioral and temporal spillover effects of the nudged behavior, that is to say the effects of one behavior on a second, different behavior? People may be aware or unaware of the behavior they perform following the nudge. At the same time, some studies indicate that behavior can affect later behavior in both a reinforcing and a repressing manner (Van Rookhuijzen *et al*., 2021). Studies show (Jordan *et al*., 2011) that individuals who initially adopt a moral/good behavior, to achieve a sense of self-completeness (complete the moral self), recall later this behavior and adopt an immoral/bad behavior, which is not congruent with their previous behavior, as a compensatory action. Experiments also reveal that people use their 'good' behavior to show that they were nonprejudiced in the first place as a qualification, a moral credential, to characterize their ensuing behavior as prejudiced (Monin & Miller, 2001). Considering the above, we conclude that nudging cannot always guarantee that its effects will be maintained after the intervention has been terminated. This is probably because the original 'good' behavior did not result from a profound deliberative process of the individual, which would thus consolidate the effects of nudging.

Furthermore, nudges are more likely to be successful in the short term because their effect gradually wanes after some time in the absence of continuous nudging and because they cannot convincingly justify why changing people's behavior is indispensable in the long run (Mills, 2013, p. 34). Although nudges seem to satisfy superficially policymakers' desires for "quick, simple and effective short-term solutions" (Yeung, 2012, p. 148), their efficacy cannot be sustained in the long term. The UK Coalition-led Government, which applied nudges as a subset of non-regulatory intervention to fulfil its vision of 'Big Society' for greater personal, professional and civic responsibility, found that "non-regulatory measures in isolation could have little or no effect and that the most effective means of changing behaviour at the population level was a package of different types of interventions" (HOL STSC, 2011, p. 33).

4.4.3 On the limitations of the transformative power of nudges

Tyler (2019, p. 333) identifies three major reasons why behavioral economics approaches for policymaking and nudges, in particular, are inadequate in political and policy terms:

1) Nudges which provide people with excessive choice could be inefficacious and could divert the government's attention from applying traditional regulatory policies which are essential but politically unpleasant. Loewenstein & Ubel (2010) explain that:

> "[…] As policymakers use it to devise programs, it's becoming clear that behavioral economics is being asked to solve problems it wasn't meant to address. Indeed, it seems in some cases that behavioral economics is being used as a political expedient, allowing policymakers to avoid painful but more effective solutions rooted in traditional economics."

2) Nudges need 'shoves' (i.e., regulation) to go along with and support them to produce results and make an impact. That means that conventional policy instruments such as regulation, price signals and better information should not be abandoned (Dolan *et al*., 2010, p. 77).

3) Nudges are, by nature, small-scale, single targeted interventions, thus, they are not always effective for modifying firmly established behavior and addressing large-scale, multifaceted and complex policy problems, such as climate change (Goodwin, 2012, p. 90).

Gigerenzer (2015a, p. 364) cautions citizens about a potential danger of nudging becoming a pretext for failing to protect consumers. For example, the House of Lords found fault with the insistence of the Cameron Government in the UK to use nudges to encourage healthy living to tackle the big societal problems of obesity, diet and alcohol (Lawrence, 2010), instead of introducing other, more cost-effective options, such as banning television advertising of unhealthy food products of big food industries, which entice people to unhealthy food purchasing and eating behavior (HOL STSC, 2011, p. 55). Gigerenzer (2015a, p. 364, 2015b) advises democratic governments to spend less on paternalistic interventions, such as nudging, and instead, spend more on risk education so that people become risk savvy. This will allow them to assess governmental policies judgmentally. Risk and uncertainty education is a viable alternative to LP, contrary to Thaler & Sunstein's claim that LP is inevitable. The German psychologist argues that psychological research does not

justify the use of BI in public policymaking. The reason is that the picture of the human nature, dominated by systematic cognitive biases and choice anomalies, is not as depressing as behavioral economists and libertarian paternalists want us to believe (Gigerenzer (2015a, p. 371), and it has been spoilt by a 'bias bias': "the tendency to see systematic biases in behavior even when there is only unsystematic error or no verifiable error at all" (Gigerenzer, 2018, p. 307).

Further, Anderson (2010, pp. 374-375) argues that "the pragmatic, managerial and outcome-oriented approach [of] libertarian paternalism" can provide successful, not expensive and politically realistic remedies to pressing social problems on the condition that there are no good alternatives. But in many cases, there are good alternative solutions to nudging also originating form behavioral sciences. Alternative behaviorally informed solutions could be applied instead to enhance people's collective decision-making faculties, such as building settings of interpersonal deliberation to produce steady solutions to joint problems. For instance, Muradova (2020) suggests the adoption of a theory of perspective-taking in deliberation among citizens, arguing that under the ideal conditions, deliberation generates more contemplative political judgments.

Nudges fail to transform society and bring about a genuine social change truly. This is because they give too much importance to individual preferences and methodological individualism or atomism versus a holistic approach to social structure. In addition to this, they do not manage to shift people to contemplate and reflect together as well as act jointly to find solutions to wicked, far-reaching pressing societal and global problems (Mills, 2013, p. 33).

4.4.4 On the influence of preexisting preferences

De Ridder *et al*. (2022) only recently introduced the new concept of 'nudgeability', which is the first attempt to synthesize the proof of when people are receptive to nudges. They found out that people are nudgeable (i.e., show the 'expected reaction') only if the fostered behavior is aligned with their personal preferences. Two deviating situations can lead to an ineffective nudge: 1) People are not influenced by a nudge when it fosters behavior that is not according to their preferences or 2) when they have preexisting solid preferences conforming to the nudge. In the first instance, people will overlook the nudge and choose an alternative option; in the second

instance, people will carry out the fostered behavior despite the presence of a nudge. Nudges seem to be most impactful on choice when people have less pronounced preferences because they are undecided or uncertain about their choice (de Ridder *et al.*, 2022, p. 354).

4.4.5 On the transparency and awareness of nudges

Transparency is also a crucial factor on which nudge effectiveness hinges. Contrary to the expectation that warning people about the presence of a nudge would make them feel that they were being directed toward a particular choice (Hansen & Jespersen, 2013), leading to the opposition, de Ridder *et al*. (2022, p. 348) cite numerous studies which show that disclosure of the inclusion of a nudge, its purpose, or the way it functions do not considerably lessen its effect, compared with a situation in which there was no disclosure before or after nudge exposure. De Ridder *et al.* (2020, p. 10) cite some meta-analyses - i.e., research processes "used to systematically synthesize or merge the findings of single, independent studies" (Shorten & Shorten, 2012) - which show that nudging effects are proportionally small in scope without considering the nudge type and/or the target behavior.

To sum up, although nudges are everywhere around us, we should bear in mind the following: they are not universally effective; they are not a panacea to all public policy problems; it is not easy to modify all individual behaviors because they are not all the same; there are limits to the effectiveness of the nudges; they do not always have the intended impacts; government interventions must be compatible with the nature of the problem and the realities of current preferences, incentives and psychology (Editorial, 2020). Jung & Mellers (2016, p. 62) rightly pinpoint that the 'one-nudge-fits-all concept' is not defensible because various factors, such as worldviews (Weltanschauungs), individuals' inherent qualities of mind and character, socioeconomic background, education and partisan ideological identification, influence people's responsiveness to nudges. Mertens *et al.* (2022) conducted a meta-analysis of choice architecture interventions across behavioral domains. They found that certain context-dependent study features such as the geographical location or the target population of the intervention do not influence behavior and that

there is a medium, not intense publication bias[71] toward positive results in the nudge literature.

4.4.6 On the limitations of the policy effectiveness of nudges

The types of nudge interventions adopted today by governments modify individuals' decisions without compulsion or without considerable changes to economic incentives. Such interventions are often as good as conventional policy tools (e.g., tax incentives) with regard to the ratios of impact to cost, which means that nudges are a worthwhile technique which has to be used more often in conjunction with traditional policy interventions (Benartzi et al., 2017). Even though numerous empirical studies have shown the effectiveness of nudge interventions in various policy areas, such as public health (Matjasko et al., 2016; Szasi et al., 2018; Hummel & Maedche, 2019), eating behavior (Arno & Thomas, 2016), tax compliance (Antinyan & Asatryan, 2020), reduction of electric energy consumption (Buckley, 2020), more calculations are needed to determine their relative effectiveness. In addition to this, there is an expanding literature on the ethical aspects of nudges, the degree of their acceptability, their strong points as well as their limitations. EESC (2017, p. C75/29) suggests that an appropriate code of ethics for nudges be drafted to avert them from moving towards mindless goals and that when designing a nudge, policymakers should meet the following four criteria: "the transparency of the process, flexibility for the persons involved who should always have the choice of acting in one way or another, the reliability of the information given to them and not making individuals feel guilty".

4.5 Conclusion of the chapter

In this chapter, we critically assessed the ideas and concepts included in Thaler & Sunstein's best-selling book *Nudge* (2008). We sought to summarize and incorporate past and current understandings of public nudges by outlining their conceptual scope and by structuring a fragmented field through three angles:

- a political and moral philosophy angle,
- a methodological and epistemological angle,
- a policy success and effectiveness angle.

[71] 'Publication bias is defined as "any tendency on the parts of investigators or editors to fail to publish study results on the basis of the direction or strength of the study findings" (Dickersin & Min, 1993, p. 135)

The findings of our critical assessment of the Nudge Theory as fas the public sector is concerned are summarized in Table 4.

Table 4. A summary of the strong and weak points of the Nudge Theory

Author's elaboration

Strengths	Weaknesses
Nudge Theory is an innovative, practical and useful theory as it incorporates the latest behavioral insights and experiments into public policymaking. Nudges are a very popular policy tool, which is tested and implemented by government agencies all over the world, along with conventional policy instruments to solve social problems.	Nudges are not universally effective, that is to say they are not a cure for all public policy problems because there are limitations to their effectiveness, and they do not always have the intended impacts.
Nudge Theory is consistent with the current environment of experimental governance, 4IR and 'surveillance capitalism' and it is applicable across a wide range of settings and policy areas.	Nudge Theory is semantically relaxed, methodologically, and epistemologically opaque, with ill-defined concepts and non-transparent causal mechanisms. Its main assumptions and tenets are axiomatic, internally inconsistent, overly subjective or contradictory.
Nudges often produce high returns at a low cost as the modifications in human behavior generated by nudges are often cost effective relative to those caused by conventional policy tools.	The policy effectiveness of nudge interventions is highly uncertain and volatile because they are not applied in a uniform manner and there are no definite criteria which can guarantee their success.
Nudge Theory is an active research program, up-to-date and accounts for new developments in behavioral sciences.	There is an inconsistent body of evidence and empirical support for its assumptions and tenets depending on contextual study features, which questions its policy effectiveness.
Nudge interventions are acceptable and justifiable as long as they are transparent and providing that they appeal to publicly defensible normative goals, such as public health or fairness.	The fact that nudge interventions are not always transparent and deliberative raises some legal, ethical and practical questions about whether these interventions are legitimate and whether they limit personal autonomy, individual liberty and human dignity.

CONCLUSIONS

In this dissertation a critical appraisal of Thaler and Sunstein's Nudge Theory was made as this is presented in their best-selling book *Nudge* (2008). More specifically, we sought to determine the worth of said theory, that is whether and under what conditions public nudges as behavioral instruments can empower people to be healthier and lead better lives.

Our findings indicate that Nudge Theory is a novel, pragmatic and worthwhile theory, which could help governments reach their policy goals as it combines the state's view of the public interest with presumed individual pursuits. Nudges seem to be a widely diffused, affordable, flexible and simple policy instrument, which is tried and applied by nudge units or public sector innovation labs across the globe, along with traditional policy instruments, whereby citizens are slightly steered to adapt their behavior with politically defined rules. However, our analysis shows that public nudge techniques should be designed and applied carefully. More specifically, nudge theory is semantically loose, methodologically and epistemologically blurred, with vague concepts and murky causal mechanisms. The policy effectiveness of nudges is often highly ambivalent and unstable as there is incongruous empirical evidence to support the theory's suppositions. Public nudges, if they are not thoughtfully planned, overt and reflective, could become manipulative and unethical as they might exploit people's cognitive limitations and biases. This could restrict individual autonomy and liberty and weaken their legitimacy, thus reinforcing citizens' distrust in politicians and policymakers.

The results presented in this dissertation could be useful to traditional economists, mainstream behavioral researchers and social scientists (e.g., behavioral economists, psychologists, sociologists), brain and cognitive scientists (e.g., cognitive psychologists, neuroscientists), philosophers of science, political and moral philosophers, historians of economic thought. Our findings would be particularly helpful to political scientists, public policy scholars, policy analysts, legal scholars, legislative drafters, policymakers and policy practitioners employed in behavioral insights units, public sector innovation labs or ministerial departments in national governments as well as intergovernmental bodies, whose tasks include designing, testing, implementing, monitoring and evaluating nudges as a complementary public policy tool to address national or transnational pressing social, environmental and

economic problems. The findings could possibly help them understand the advantages and the limitations of the scope of nudges and the duration of their effect and bridge the divide between behavioral science (laboratory or field experiments) and real-world policy.

Future research could include case studies from selected national governments or intergovernmental bodies of successful and unsuccessful applications of public nudge policies. A comparison could be made between different types of nudges (System 1 or System 2) and methods of delivery when applied across different cultures, institutional settings, policy areas, geographic locations, socioeconomic profiles and values and attitudes of the nudgees, in order to test how each independent variable from the above influences the dependent variable, that is the policy effectiveness of nudges in the real world in terms of duration of their effect and modified individual behavior. Future studies could also include examining whether deliberative nudges can empower citizens or whether non-deliberative, subconscious nudges limit individual autonomy and freedom of choice and reduce citizens' trust in politicians.

In view of the 2021–2022 global energy crisis in terms of the extremely high prices in oil, natural gas and electricity, caused by the rapid economic recovery following the pandemic and Russia's invasion of Ukraine in February 2022, randomized field trials on informational or social norm nudges to induce individual saving behaviors with regard to residential electricity consumption have already been conducted and have proved relatively successful (Ruokamo *et al*., 2022). Nevertheless, more systematic field experiments and comparisons are necessary to assess the cost and policy effectiveness of nudges because on the one hand, there is no one-nudge-fits-all solution and on the other hand, country-specific and context-specific features (e.g., prevailing climate conditions, local energy market, geographic location, smart metering of electricity consumption, level of social solidarity) are important variables that need further examination.

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