

# Nudging and COVID-19: Behavioural Insights as Policy Tools in the Fight Against the Virus

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NUDGING AND COVID-19: BEHAVIOURAL INSIGHTS AS POLICY TOOLS IN THE FIGHT AGAINST THE VIRUS

**ABSTRACT:** This work aims at describing how nudging and behavioural insights can be a significant and proportional contribution to the pandemic response activities. To this end, the first part will be devoted to an analysis of the main characteristics and implications of behavioural techniques. The focus will then move to the role nudges have come to play in the health sector, thus justifying their employment in the fight against the new coronavirus. It will then be showed that western democracies, through the establishment of nudge units and an assessment based on the proportionality principle, seem more suitable to an ethical integration of behavioural tools in their public policies.

**KEYWORDS:** Nudging; behavioural insights; public policy; COVID-19; constitutional law

**SUMMARY:** 1. Introduction – 2. Nudging and behavioural insights as tools for public policy – 3. Nudges: a double-edged sword – 4. Nudges in the legal system – 5. Nudging for health: the relationship between behavior and well-being – 6. Behavioural insights and infectious diseases – 7. The behavioural response to the virus: different approaches and institutional setups – 8. Nudging and COVID-19: behavioural insights as policy tools in the fight against the virus – 9. Concluding remarks.

## 1. Introduction

**A**fter the 2003 SARS epidemic, since December 2019 the world has been facing a new coronavirus: SARS-CoV-2. This virus causes an acute respiratory syndrome (COVID-19) in infected individuals and spreads so aggressively and fast that on March, 11, 2020 the World Health Organization declared the status of global pandemic<sup>1</sup>. To this day, COVID-19 has caused the death of 2,479,678 people in 223 countries, with a total of 111,762,965 confirmed cases<sup>2</sup>, and the number is likely to increase as I write. But the crisis is not only sanitary and it also has significant

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<sup>1</sup> WHO announces COVID-19 outbreak a pandemic, <http://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/news/news/2020/3/who-announces-covid-19-outbreak-a-pandemic> (last visited 05.01.2021).

<sup>2</sup> See <http://bit.ly/3qsLYYN> (last visited 25.02.2021).

economic and social consequences<sup>3</sup>, to the point that the UN Secretary-General Antonio Guterres and other political leaders defined the fight to the virus «the biggest international challenge since the Second World War»<sup>4</sup>.

The most pressing question has therefore been how to tackle this unprecedented threat, also due to the great uncertainty that underlies this disease<sup>5</sup>. What we have been asked to do is stay at home, wash our hands, wear masks and practice social distancing. Basically, changing our everyday behaviour. For this reason, alongside traditional tools such as bans and ministerial decrees<sup>6</sup>, some governments (and organizations) have also turned to another type of measure in order to ensure the respect of these preventive behaviours: nudging. Drawn from the empirical application of behavioural sciences, this technique can meaningfully support the activity of policy-makers in the current pandemic, despite worries that can emerge from its employment as a governmental tool.

The aim of this work is precisely that of showing how behavioural insights can be a helpful resource to public policy, to the point of being advocated also at international level, especially now that the need to slow the spread of COVID-19 and to safeguard citizens' health is so pressing. The idea is that human behaviour will determine the spread of COVID-19<sup>7</sup> and if it was responsible behaviour going viral instead of the disease, a «contagion of right actions» could help fight the pandemic<sup>8</sup>.

## 2. Nudging and behavioural insights as tools for public policy

«If you wanna encourage people to do something, make it easy»<sup>9</sup>. This is the basic idea underlying nudge theory as explained by economist R. H. Thaler. The concept, developed in collaboration with legal scholar C. R. Sunstein in the book *Nudge. Improving Decisions about Health, Wealth and Happiness*<sup>10</sup>, calls into question classic economic theory, by asserting that individuals are not fully rational

<sup>3</sup> *An inclusive, green recovery is possible: Time to act is now*, <https://www.oecd.org/coronavirus/en/> (last visited 2.11.2020).

<sup>4</sup> *Global Cooperation Must Adapt to Meet Biggest Threat since Second World War, Secretary-General Says on International Day, as COVID-19 Transcends Borders*, <https://www.un.org/press/en/2020/sgsm20058.doc.htm> (last visited 28.11.2020).

<sup>5</sup> P. LUNN, C. BELTON, C. LAVIN, F. MCGOWAN, S. TIMMONS, D. ROBERTSON, *Using Behavioural Science to Help Fight the Coronavirus*, in *ESRI Working Paper* 656, Dublin, 2020.

<sup>6</sup> The massive use of decrees did not, inter alia, go uncontested, precisely for the fact that they also represent a source of limitation on individual rights and liberties. In S. GEBREKIDAN, *For Autocrats, and Others, Coronavirus Is a Chance to Grab Even More Power*, in *New York Times*, 30 March 2020, <https://www.nytimes.com/2020/03/30/world/europe/coronavirus-governments-power.html> (last visited 17.12.2020).

<sup>7</sup> S. MICHIE, J. RUBIN, R. AMLÔT, *Behavioural science must be at the heart of the public health response to covid-19*, in *BMJ*, 28 February 2020, <https://blogs.bmj.com/bmj/2020/02/28/behavioural-science-must-be-at-the-heart-of-the-public-health-response-to-covid-19/> (last visited 5.12.2020).

<sup>8</sup> F.B. TESI, L. PADELLA, *La pandemia condiziona i consumatori, arginiamola con spinte gentili*, in *Il Sole 24ore*, 18 Marzo 2020, [https://www.econopoly.ilsole24ore.com/2020/03/18/covid19-consumatori-pandemia/?refresh\\_ce=1](https://www.econopoly.ilsole24ore.com/2020/03/18/covid19-consumatori-pandemia/?refresh_ce=1) (last visited 23.11.2020).

<sup>9</sup> TED Radio Hour, *What is a Nudge?*, [www.npr.org/2016/06/24/483112809/what-is-a-nudge?](http://www.npr.org/2016/06/24/483112809/what-is-a-nudge?) (last visited 07.12.2020).

<sup>10</sup> R.H. THALER, C.R. SUNSTEIN, *Nudge: Improving Decisions About Health, Wealth and Happiness*, London, 2008.

beings perfectly able to act according to well-established preferences and needs<sup>11</sup>. On the contrary, working on Simon's bounded rationality<sup>12</sup> and Kahneman's dual process theory<sup>13</sup>, Thaler and Sunstein claim that people are not only capable, but also *inclined* to commit mistakes, acting in a way that is rather «predictably irrational»<sup>14</sup>. A so-called «choice architect» can thus exploit this predictability and modify the environment where people make choices so to «gently push» them towards the decision that is best for them<sup>15</sup>, and the society as a whole<sup>16</sup>. For example, the simple building of cycle paths, for a long time at the core of public debates for their contribution to the COVID-19 transitions phases<sup>17</sup>, can be a nudge that helps to achieve multiple policy goals. The presence of such paths, in fact, induces people to opt for the bicycle as a means of transportation. Seeing others cycling around, then, will stimulate people to do the same since, as social sciences show, humans are inclined to «follow the herd», i.e. to do what other people do<sup>18</sup>. Moreover, cycling will help individuals to develop better health, thus reducing costs for the healthcare system, as it will contribute to the decongestion of traffic, thus leading to safer roads and a cleaner environment<sup>19</sup>. In other words, what nudges do is rely on cognitive biases and heuristics (loss aversion, status quo bias, framing effect and anchoring heuristics, just to name a few)<sup>20</sup> to promote specific policy outcomes in a way that does not rest on Austin's idea of the threat of a sanction<sup>21</sup>, typical of traditional regulatory tools, but that rather grants citizens freedom in decision-making, leaving open the possibility for them to resist the nudge and «opt-out», if that is what they most prefer<sup>22</sup>. This way, a nudge can be considered a form of «libertarian paternalism», as it influences people's lives to enhance their health and wealth (paternalism), while still respecting and preserving their freedom of choice (libertarian)<sup>23</sup>. This builds upon Mill's vision of people's liberty of action, which should be limited to those situations where constraints are needed to ensure self-protection or to prevent harm to others (the Harm Prin-

<sup>11</sup> *Ivi.*, 6.

<sup>12</sup> H.A. SIMON, *Models of Bounded Rationality: Empirically Grounded Economic Reason*, Cambridge, 1982.

<sup>13</sup> D. KAHNEMAN, S. FREDERICK, *Representativeness revisited: Attribute substitution in intuitive judgement* in T. Gilovich, D. GRIFFIN, D. KAHNEMAN (Eds.), *Heuristics and biases: The psychology of intuitive judgement*, Cambridge, 2002, 49-81.

<sup>14</sup> D. ARLEY, *Predictably Irrational: The Hidden Forces that Shape Our Decisions*, London, 2009.

<sup>15</sup> ITC, *Nudges: The Design of Your Choice: A psychological approach to design and behavioral technique that helps individuals make the right decision*, 17 May 2018, <https://www.itcilo.org/stories/nudges-design-your-choice> (last visited 15.12.2020).

<sup>16</sup> J. EGEBAK, M. EKSTRÖM, *Nudges: The Design of Your Choice: A psychological approach to design and behavioral technique that helps individuals make the right decision*, <http://tenudge.eu/project/duplex-printer-default-green-nudge/> (last visited 28.12.2020).

<sup>17</sup> L. MOSELLO, *Roma a due ruote: il primo tratto delle nuove ciclabili c'è, ma il Grab rimane un fantasma*, in *La Stampa*, 9 Maggio 2020, <https://www.lastampa.it/roma/2020/05/09/news/roma-a-due-ruote-il-primo-tratto-delle-nuove-ciclabili-c-e-ma-il-grab-rimane-un-fantasma-1.38824868> (last visited 10.12.2020).

<sup>18</sup> R.H. THALER, C.R. SUNSTEIN, *Nudge: Improving Decisions About Health, Wealth and Happiness*, cit., 53-60.

<sup>19</sup> M. QUIGLEY, *Nudging for health: on public policy and designing choice architecture*, in *Medical Law Review*, 21, 4, 2013, 588-621.

<sup>20</sup> *Ibidem.*

<sup>21</sup> M.C. MURPHY, *Philosophy of Law. The Fundamentals*, Oxford, 2009, 17-18.

<sup>22</sup> R.H. THALER, C.R. SUNSTEIN, *Nudge: Improving Decisions About Health, Wealth and Happiness*, cit., 5-6.

<sup>23</sup> *Ivi.*, 5.

principle)<sup>24</sup>. Nudges could thus be divided in pro-self and pro-social ones, whereby the aggregate of many pro-self ones could lead to greater social outcomes<sup>25</sup>. Since nudges are meant to preserve freedom of choice, then, Thaler and Sunstein address them as a form of soft paternalism<sup>26</sup>, as opposed to hard paternalism, which instead interferes with individual action irrespective of choices being voluntary or not<sup>27</sup>. Hence, even if «libertarian paternalism» may seem an oxymoron, this definition is precisely meant to present nudging as a sort of middle ground between «command and control» regulation, which often ends up being utterly coercive, and libertarian regulation, which instead bears the risk of being *too* libertarian<sup>28</sup>. This middle ground entails a type of regulation that «de-biases» people through the organization of the context in which they decide<sup>29</sup>.

It is precisely the chance to exploit the predictability of human behaviour that over the years has triggered the interest of both the private and the public sector in these innovative techniques. Google has for instance turned to nudges to improve the health of its employees: by placing water at eye-level in its office fridges and moving soda to the bottom, water intake has increased by 47%; by putting M&Ms in opaque bins rather than clear dispensers, the caloric intake from candies dropped to 9% in just one week<sup>30</sup>. If its employees are healthier, they are also happier and, Google claims, as a consequence, also more innovative<sup>31</sup>.

On the governmental side, instead, many are the examples of measures based on behavioural science adopted to further stated policy goals. The Luxembourg Ministry of Sustainable Development and Infrastructure, for example, promoted road safety by introducing speed cameras accompanied by informational levers based on salience, which said «48% of deadly car accidents are due to excessive car speed»<sup>32</sup>.

These examples show how the application of nudges constituted a real «paradigm shift» in the context of policy making<sup>33</sup>: it changed the approach from a deductive to an inductive one, by challenging established theoretical assumptions about what the rational behaviour of citizens *is thought to be* in favour of empirical experiments providing evidence about how people *actually* act<sup>34</sup>. In fact, behaviourally informed regulation finds one of its major sources of legitimation in empirically-tested results, gained through the application of the experimental method, not on theoretical and abstract

<sup>24</sup> M.C. MURPHY, *Philosophy of Law. The Fundamentals*, cit., 83.

<sup>25</sup> L. COMINELLI, *Framing Choices to Influence Behaviors: A Debate on the Pros and Cons of “Nudging”*, in *Diritto e Questioni Pubbliche*, XVIII, 1, 2018, 293-306.

<sup>26</sup> R.H. THALER, C.R. SUNSTEIN, *Nudge: Improving Decisions About Health, Wealth and Happiness*, cit., 5.

<sup>27</sup> M. GALLETI, S. VIDA, *Libertà Vigilata. Una Critica del Paternalismo Libertario*, Roma, 2018, 200-209.

<sup>28</sup> L. COMINELLI, *Framing Choices to Influence Behaviors: A Debate on the Pros and Cons of “Nudging”*, cit., 296

<sup>29</sup> *Ibidem*.

<sup>30</sup> C. KUANG, *6 Ways Google Hacks Its Cafeterias So Googlers Eat Healthier*, <https://www.fastcompany.com/1669355/6-ways-google-hacks-its-cafeterias-so-googlers-eat-healthier> (last visited 26.12.2020).

<sup>31</sup> *Ibidem*.

<sup>32</sup> J.S. LOURENÇO, E. CIRIOLO, S.R. ALMEIDA, X. TROUSSARD, *Behavioural Insights Applied to Public Policy: European Report 2016*, EUR 27726 EN, 2016.

<sup>33</sup> H. STRÄSHEIM, S. BECK, *Introduction to the Handbook of Behavioural Change and Public Policy*, in *Handbook of Behavioural Change and Public Policy*, Cheltenham, 2019, 1-21.

<sup>34</sup> OECD, *Behavioural Insights and Public Policy: Lessons from Around the World*, Paris, 2017.

ideas<sup>35</sup>. Clearly, this also triggers the question about the relationship between science and public decision-making, where the former is increasingly asked to provide evidence and expertise for the latter<sup>36</sup>.

But it is important to note that nudges are only one of the possible behavioural insights drawn from social and behavioural science that can be used to inform public policy. Other means are, for example, boosts<sup>37</sup> or Human Centre Design (HCD)<sup>38</sup>. More specifically, therefore, behavioural insights can be understood as «all means and modes of public policy aiming at influencing individual or collective behaviour by using insights from behavioural economics, behavioural sciences, psychology or neurosciences»<sup>39</sup>. As such, these tools are increasingly employed in many countries and across different and numerous policy domains, from taxation to finance, from transport to energy consumption and, as proved by the recent COVID-19 outbreak, the safeguarding of health<sup>40</sup>. Yet, before analysing the role of these techniques in the current pandemic, it is important to note that, despite the appealing character of nudges and behavioural insights as an innovative and effective way of policy-making, their employment on behalf of public entities does not go uncontested, but it raises a number of concerns on different grounds.

### 3. Nudges: a double-edged sword

In 2017, the OECD surveyed public policy in 23 countries around the world who made use of behavioural insights and nudges<sup>41</sup>. To date, the number of institutions applying these techniques is 202<sup>42</sup>. But as the amount of «nudge-enthusiasts» rises, so does the willingness of scholars and experts to draw attention to the possible shortcomings arising therefrom. Nudges are appealing because they represent an effective «third way» to policy-making (besides mandates and incentives)<sup>43</sup>, but at the same time they raise concerns in terms of legitimacy and accountability<sup>44</sup>.

Supporters of these measures praise their ability to promote public goals at a low cost, while maintaining freedom and producing prompt results in a highly effective way<sup>45</sup>. Indeed, statistical data confirm that defaults, i.e. pre-set options that apply unless the subject specifically opts out, are the

<sup>35</sup> *Ibidem*.

<sup>36</sup> H. STRABHEIM, S. BECK, *Introduction to the Handbook of Behavioural Change and Public Policy*, cit., 1-21.

<sup>37</sup> Boosts are defined as behavioural insights aimed at fostering people's capacity to make their own choices in an educative way in OECD, *Behavioural Insights and Public Policy: Lessons from Around the World*, Paris, 2017.

<sup>38</sup> Human Centre Design (HCD) entails working directly with subjects in the definition of problems and solutions, collaboratively and locally and with a system view, in *BI and COVID-19 – Experiences across the UN*, <https://www.uninnovation.network/behavioural-insights> (last visited 7.12.2020).

<sup>39</sup> H. STRABHEIM, S. BECK, *Introduction to the Handbook of Behavioural Change and Public Policy*, cit., 1-21.

<sup>40</sup> OECD, *Behavioural Insights and Public Policy: Lessons from Around the World*, cit.

<sup>41</sup> H. STRABHEIM, S. BECK, *Introduction to the Handbook of Behavioural Change and Public Policy*, cit., 1-21.

<sup>42</sup> OECD, *Behavioural Insights*, <https://www.oecd.org/gov/regulatory-policy/behavioural-insights.htm> (last visited 20.08.2020).

<sup>43</sup> K.P. PURNHAGEN, E. VAN KLEEF, *Commanding to "nudge" via the proportionality principle? Are nudging techniques a less restrictive and equally effective way to regulate? A case study on diets in EU food law*, in *Wageningen Working Papers in Law and Governance*, 3, 2017.

<sup>44</sup> H. STRABHEIM, S. BECK, *Introduction to the Handbook of Behavioural Change and Public Policy*, cit., 1-21.

<sup>45</sup> C.R. SUNSTEIN, *Nudging: A Very Short Guide*, in *Journal of Consumer Policy*, 37, 4, 2014, 583-588.

most effective of all nudge categories, with an average effect size of 87%<sup>46</sup>. However, it has also been noted that problems may arise if policy-makers decide to implement defaults at the wrong moment or in the wrong environment, thus harming rather than fostering individual decision-making<sup>47</sup>. Even Sunstein himself wrote about «Nudges that fail»<sup>48</sup>.

The major criticism is that these tools are not only too liberal but, above all, too paternalistic,<sup>49</sup> steering and manipulating subject's choices<sup>50</sup>. However, when enacting a new law or measure through more traditional channels the government is also somehow directing citizens' behaviour, prohibiting unsocial or harmful conducts<sup>51</sup>. That is indeed the task we assign to our representatives in democratic countries.

Other criticisms concern the ability of governments to legitimately claim that the direction towards which they decide to nudge people is actually *better* than the one they would otherwise choose by themselves. Doing so seems to reveal scepticism as to citizens' own judgment about what is good or not for them, replacing the values of the nudgees with those of nudgers<sup>52</sup>. The counterargument, though, is that nudges should be enacted only when it is known that people value specific goals (eg. health, or environmental protection), but simply fail to promote them<sup>53</sup>. When such knowledge is not easy to assume<sup>54</sup>, policy-makers can always directly ask nudgees' consent on specific nudges or gather information about their preferences through surveys<sup>55</sup>.

Clearly, this triggers another question, i.e. how can governments take into account the plurality of interests underlying citizens' decisions. How can they establish *who* values *which* goals?<sup>56</sup> Yet, this argument could be advanced for any type of policy instrument. Similarly, a law prohibiting armed robbery would violate at least the interests of those who do it as a job or because they really need the money. The reason why such a behaviour is prohibited is that there is a public interest considered to weigh more than the individual one. Consequently, it would be hard to maintain that the public goals furthered by nudges, e.g. public health, are less important or even just different from those protected by traditional tools.

Nudges have also been criticized because they reduce rather than support people's capacity to deal with choices, causing a sort of «infantilization process»<sup>57</sup>, or because they are established by people, namely policy-makers, who are themselves inclined to irrational decisions. The focus is usually on the

<sup>46</sup> D. HUMMEL, A. MAEDCHE, *How Effective Is Nudging? A Quantitative Review on the Effect Sizes and Limits of Empirical Nudging Studies*, in *Journal of Behavioral and Experimental Economics*, 2019.

<sup>47</sup> L.E. WILLIS, *When Nudges Fail: Slippery Defaults*, in *The University of Chicago Law Review*, 80, 3, 2013, 1155-1229, in D. HUMMEL, A. MAEDCHE, *How Effective Is Nudging? A Quantitative Review on the Effect Sizes and Limits of Empirical Nudging Studies*, cit.

<sup>48</sup> C.R. SUNSTEIN, *Nudges That Fail*, in *Behavioural Public Policy*, 1, 1, 2017, 4-25.

<sup>49</sup> *Ibidem*.

<sup>50</sup> B. ENGELEN, *Ethical Criteria for Health-Promoting Nudges: A Case-by-Case Analysis*, in *The American Journal of Bioethics*, 19, 5, 2019, 48-59.

<sup>51</sup> M. QUIGLEY, *Nudging for health: on public policy and designing choice architecture*, cit., 588-621.

<sup>52</sup> B. ENGELEN, *Ethical Criteria for Health-Promoting Nudges: A Case-by-Case Analysis*, cit., 48-59.

<sup>53</sup> *Ibidem*.

<sup>54</sup> *Ibidem*.

<sup>55</sup> *Ibidem*.

<sup>56</sup> *Ibidem*.

<sup>57</sup> R. CALO, *Code, Nudge, or Notice?*, in *Iowa Law Review*, 99, 2, 2014, 773-802.

risk that governments might «develop too much of a taste for subtly influencing citizens' choice»<sup>58</sup>, but it is worth noting that they are subject to the same cognitive biases and heuristics they exploit in nudges<sup>59</sup>. The danger becomes then that of policy-makers being themselves nudged by companies in the private sector, who only aim at seeing their own interests and profits advanced by public policies that push consumers towards specific behaviours and choices<sup>60</sup>.

Besides these critiques then, nudges have been condemned on an additional ground. Since they intervene in the cognitive framework where people generally «decide» or simply «act», therefore in the context where individuals basically «live», it can be argued that nudges have a pervasive impact on our lives and thus affect our freedom in general. This freedom can then be classified into several freedoms, as the freedom of expression<sup>61</sup>, the right to privacy<sup>62</sup> and freedom of choice<sup>63</sup>.

More specifically, any attempt of the government to use informative tools to nudge citizens' behaviour, for example through graphic warnings on cigarettes, will result in a restriction to freedom of expression<sup>64</sup>. Clearly, such an intrusion could be allowed if necessary to achieve important policy outcomes, yet uncontrolled intervention in the informational context in which people make decisions could easily transform nudges into instruments of propaganda<sup>65</sup>.

Protection of the individuals' private sphere, instead, is one of the most important values of a legal system, as well as a «precondition for a democratic society»<sup>66</sup>. The right to privacy is generally understood as freedom from interference in ones' private life, from «unwarranted publicity»<sup>67</sup> in family matters, home and correspondence<sup>68</sup>. Yet what nudges do is precisely intervene in that private

<sup>58</sup> *Ibidem*.

<sup>59</sup> H. STRABHEIM, S. BECK, *Introduction to the Handbook of Behavioural Change and Public Policy*, cit., 1-21.

<sup>60</sup> J. PIPITONE, *New Netflix Facebook App Lets Users Share Viewing History*, in *CNN. Business*, 13 March 2013, <https://money.cnn.com/2013/03/13/technology/social/netflix-facebook/index.html> (last visited 3.12.2020).

<sup>61</sup> A. ALEMANNI, A. SPINA, *Nudging legally: On the checks and balances of behavioural regulation*, in *International Journal of Constitutional Law*, 12, 2, 2014, 429-456. See also *New York Times Co. v. United States*, 403 U.S. 713 (1971); *Mills v Alabama*, 384 U.S. 214 (1966); *Társaság a Szabadságjogokért v. Hungary*, App no 37374/05 (ECHR 14/04/2009).

<sup>62</sup> A. ALEMANNI, A. SPINA, *Nudging legally: On the checks and balances of behavioural regulation*, cit., 429-456. See also European Court of Human Rights, *Guide on Article 8 of the European Convention on Human Rights*, 31 August 2020, [https://www.echr.coe.int/Documents/Guide\\_Art\\_8\\_ENG.pdf](https://www.echr.coe.int/Documents/Guide_Art_8_ENG.pdf) (last visited 17.06.2020); *Population Census Case*, (Volkszählungsurteil), BVerGE 65, 1; K. GRANVILLE, *Facebook and Cambridge Analytica: What You Need to Know as Fallout Widens*, in *New York Times*, 19 March 2018, <https://www.nytimes.com/2018/03/19/technology/facebook-cambridge-analytica-explained.html> (last visited 18.06.2020); A. HERN, *Cambridge Analytica: how did it turn clicks into votes?*, in *The Guardian*, 6 May 2018, <http://bit.ly/3unD7Kk> (last visited 18.11.2020); M. BARKER, *Editorial Introduction: Cambridge Analytica, 'Nudge Theory', and 'figures of the audience'*, in *Journal of Audience and Reception Studies*, 15, 2018.

<sup>63</sup> BVerfGE 54,143 – “pigeon feeding”; BVerfGE 80,137, 152 ssq. – “riding in the forest”, in M. SCHWEIZER, *Nudging and the principle of proportionality. Obligated to nudge?*, in *European Perspectives on Behavioural Law and Economics*, 2016, 93-119.

<sup>64</sup> J.S. LOURENÇO, E. CIRIOLO, S.R. ALMEIDA, X. TROUSSARD, *Behavioural Insights Applied to Public Policy: European Report 2016*, cit.

<sup>65</sup> A. ALEMANNI, A. SPINA, *Nudging legally: On the checks and balances of behavioural regulation*, cit., 429-456.

<sup>66</sup> *Population Census Case*, 1983, (Volkszählungsurteil), BVerGE 65, 1.

<sup>67</sup> *Black's Law Dictionary*, St. Paul, 1968, 1358.

<sup>68</sup> European Court Of Human Rights, *Guide on art 8 of the Convention*, cit.

sphere to make people's lives easier, safer and simpler by targeting their inner decision-making process<sup>69</sup>.

But the right to free speech and privacy could not exist if legal systems did not accord their citizens the freedom to make their own choices in general. Indeed, freedom of choice means freedom to decide *what* to say and *with whom* sharing *what* information about ourselves, and this is why the whole discussion on nudges generally revolves around the possibility that they hamper people's freedom to act as they wish<sup>70</sup>. Still, if one just thinks about it, we are always being nudged somehow, as the context in which we make decisions is never neutral and always exercises a degree of influence on us<sup>71</sup>. Thus, asserting that nudges are to be avoided because they restrict our freedom, would mean that other more traditional measures should also be avoided, as they also intervene in shaping the context in which people make decisions. Furthermore, the degree of impact on our rights also depends on the type of nudge employed: behavioural measures that engage cognitive biases but at the same time are so transparent as to allow citizens to reconstruct the ends and means by which they have been adopted are less dangerous<sup>72</sup>, because they do not impose or manipulate, but rather trigger the rational capacities already at play in individuals<sup>73</sup>. In Sunstein's view, autonomy and, thus, liberty, is connected to human dignity (intended as the capacity of people to act as agents) and can be categorized into two types: thick and thin. The former refers to liberty as «an ingredient of welfare», implying that when people are deprived of the freedom to choose, they suffer a loss in welfare<sup>74</sup>. The latter, instead, refers to liberty as «an end in itself», meaning that governments cannot override that freedom if not for the most compelling reasons, not only because the right to choose is valued by individuals in terms of welfare, but also because citizens, as such, have dignity and, thus, they must be free to act as they prefer<sup>75</sup>. Libertarian paternalism, therefore, is compatible with fundamental liberties insofar as nudges act on the thin version of liberty, thus preserving dignity.

In short, these are just some of the considerations that can be made on the application of behavioural measures on behalf of policy-makers. Nudges are indeed a double-edge sword, that is, they «both compromise and preserve freedom»<sup>76</sup>. Yet, the potentials of behavioural measures should not be overlooked because of fear of the related complexities they may bring about: addressing those complexities is precisely what is needed to ensure that human behaviour is part of the solution to societal problems, and not part of the problem<sup>77</sup>.

<sup>69</sup> C.R. SUNSTEIN, *Nudging: A Very Short Guide*, cit., 583-588.

<sup>70</sup> B. ENGELEN, *Ethical Criteria for Health-Promoting Nudges: A Case-by-Case Analysis*, cit., 48-59.

<sup>71</sup> R.H. THALER, C.R. SUNSTEIN, *Nudge: Improving Decisions About Health, Wealth and Happiness*, cit., 9-11.

<sup>72</sup> P.G. HANSEN, A.M. JESPERSEN, *Nudge and the Manipulation of Choice: A Framework for the Responsible Use of the Nudge Approach to Behaviour Change in Public Policy*, in *European Journal of Risk Regulation*, 4, 1, 2013, 3-28.

<sup>73</sup> B. ENGELEN, *Ethical Criteria for Health-Promoting Nudges: A Case-by-Case Analysis*, cit., 48-59.

<sup>74</sup> C.R. SUNSTEIN, *Why Nudge: The Politics of Libertarian Paternalism*, London, 2014, 124.

<sup>75</sup> *Ivi.*, 127.

<sup>76</sup> A. ALEMANNI, A. SPINA, *Nudging legally: On the checks and balances of behavioural regulation*, cit., 429-456.

<sup>77</sup> P.G. HANSEN, A.M. JESPERSEN, *Nudge and the Manipulation of Choice: A Framework for the Responsible Use of the Nudge Approach to Behaviour Change in Public Policy*, cit., 3-28.



#### 4. Nudging in the legal system

The previous considerations suggest that behavioural measures should not be left uncontrolled; additionally because of the delicate relationship they have, *inter alia*, with individual liberties. In light of this, therefore, different means of scrutiny have been advocated, but nudges are a challenge for the legal system under this point of view too, mainly for three reasons. Firstly, nudges are the result of choice architecture and, thus, their effects are closely connected to the context in which they are applied<sup>78</sup>, making it difficult to establish an *ex ante* framework of regulation that can bring together all their possible ramifications. Secondly, their lack of coercive nature might keep them out of the reach of traditional means employed to hold policy-makers accountable, as for example, judicial review of administrative acts<sup>79</sup>. Thirdly, if nudges are unaware of the fact that they are being nudged, how can they request scrutiny of the given measure<sup>80</sup>? This openly undermines the democratic principles of public deliberation and accountability, as well as the right to an effective remedy<sup>81</sup>.

There are many solutions advanced to address these concerns. Thaler and Sunstein refer to John Rawls's principle of publicity, according to which governments should not enact policies they would not be able or willing to defend in front of their citizens, because this would be both embarrassing and disrespectful<sup>82</sup>. Yet, this can turn out to be insufficient, as nudges are often "invisible". If policy-makers decide to exploit this invisibility, they risk being labelled as manipulators or even "national nannies"<sup>83</sup>, but if they don't, this would leave people exposed to random choice architecture rather than an accurately designed one<sup>84</sup>.

For this reason, P. G. Hansen and A. M. Jespersen suggest that rather than publicity, one should refer to the principle of transparency, intended as an "epistemic dimension" where subjects can reasonably be expected to understand the intentions, ends and means behind the behavioural intervention<sup>85</sup>. R. Lepenies and M. Malecka, instead, talk about a public legal registry of nudges, accompanied by expiration dates, that would subject these measures to periodic evaluation on behalf of, for example, an overseeing body<sup>86</sup>.

Another way to safeguard a sound and ethical application of nudges is to submit them to scrutiny of principles of administrative law. Behavioural regulation is indeed a form of administrative interven-

<sup>78</sup> X. TROUSSARD, R. VAN BAVEL, *How Can Behavioural Insights Be Used to Improve EU Policy?*, in *Intereconomics*, 53, 2018, 8-12.

<sup>79</sup> A. ALEMANNI, A. SPINA, *Nudging legally: On the checks and balances of behavioural regulation*, cit., 429-456.

<sup>80</sup> M. QUIGLEY, *Nudging for health: on public policy and designing choice architecture*, cit., 588-621.

<sup>81</sup> H. STRAßHEIM, S. BECK, *Introduction to the Handbook of Behavioural Change and Public Policy*, cit., 1-21.

<sup>82</sup> R.H. THALER, C.R. SUNSTEIN, *Nudge: Improving Decisions About Health, Wealth and Happiness*, cit., 244-245.

<sup>83</sup> C.R. SUNSTEIN, L.A. REISCH, M. KAISER, *Trusting nudges? Lessons from an international survey*, in *Journal of European Public Policy*, 26, 10, 2018, 1417-1443.

<sup>84</sup> M. QUIGLEY, *Nudging for health: on public policy and designing choice architecture*, cit., 588-621.

<sup>85</sup> P.G. HANSEN, A.M. JESPERSEN, *Nudge and the Manipulation of Choice: A Framework for the Responsible Use of the Nudge Approach to Behaviour Change in Public Policy*, cit., 3-28.

<sup>86</sup> R. LEPENIES, M. MALECKA, *The Institutional Consequences of Nudging – Nudges, Politics and the Law*, in *Review of Philosophy and Psychology*, 6, 2015, 427-437.

tion and, as such, it should be possible to address it in terms of, for example, legality and impartiality<sup>87</sup>.

However, the most meaningful way to cope with measures that (potentially) limit fundamental rights is the principle of proportionality. Initially a principle of German Constitutional law, it nowadays represents a foundational element of national constitutions as well as at supranational level<sup>88</sup>. In the EU legal order it is enshrined both in art. 5 TFEU and art. 52 of the Charter of Fundamental Rights of the European Union, which establishes that limitations may only be allowed «if they are necessary and genuinely meet objectives of general interest recognised by the Union or the need to protect the rights and freedoms of others»<sup>89</sup>. Thus, proportionality is said to «restrict the restrictions»<sup>90</sup> and it offers a 4-pronged test to assess them: legitimacy of the aim<sup>91</sup>, suitability of the measure with the stated public goal<sup>92</sup>, necessity and proportionality *strictu sensu*<sup>93</sup>. Among these, the most interesting for the purposes of this work is the necessity-prong, as it suggests that there should not be any other measure that is equally effective but less interfering with individual rights. One could argue that, as nudges are non-coercive tools, they always interfere less, thus creating a sort of positive obligation for policy-makers to opt for them rather than for more traditional measures<sup>94</sup>. However, «less interfering» does not equal «least interfering»<sup>95</sup>. Additionally, in the context of COVID-19 for example, the fight against the virus has for a long time had to continue in the absence of medication or a vaccine, thus somehow necessarily resting on behavioural measures<sup>96</sup>. Among the different behavioural insights, nudges have a preeminent role because they best fit the aim of response policies, i.e. promoting specific behaviour to contain the outbreak. While boosts aim at fostering people's capacity to make their own choices<sup>97</sup>, which in this case could also mean, for example, no-mask positions, Human Centre Design entails working directly with subjects in the definition of problems and solutions, collaboratively and locally<sup>98</sup>, something more difficult to operationalize in the context of national lockdowns.

Faced with the pervasive application of behavioural insights to public policy, though, governments have developed another solution to guarantee that individual rights and democratic principles are

<sup>87</sup> A. ALEMANNI, A. SPINA, *Nudging legally: On the checks and balances of behavioural regulation*, cit., 429-456.

<sup>88</sup> O. KOCH, *Grundsatz der Verhältnismässigkeit in der Rechtsprechung des Gerichtshofs der europäischen Gemeinschaften*, 92, in M. SCHWEIZER, *Nudging and the principle of proportionality. Obligated to nudge?*, cit., 93-119.

<sup>89</sup> *Charter of the Fundamental Rights of the European Union*, art. 52, available at <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:12012P/TXT&from=EN>.

<sup>90</sup> M. SCHWEIZER, *Nudging and the principle of proportionality. Obligated to nudge?*, in *European Perspectives on Behavioural Law and Economics*, 2016, 93-119.

<sup>91</sup> *Ibidem*.

<sup>92</sup> *Ibidem*.

<sup>93</sup> *Ibidem*.

<sup>94</sup> K.P. PURNHAGEN, E. VAN KLEEF, *Commanding to "nudge" via the proportionality principle? Are nudging techniques a less restrictive and equally effective way to regulate? A case study on diets in EU food law*, cit.

<sup>95</sup> M. Schweizer, *Nudging and the principle of proportionality. Obligated to nudge?*, cit., 93-119.

<sup>96</sup> J.J. VAN BAVEL, et al., *Using Social and Behavioural Science to Support COVID-19 Pandemic Response*, in *Nature Human Behaviour*, 4, 2020, 460-471.

<sup>97</sup> OECD, *Behavioural Insights and Public Policy: Lessons from Around the World*, cit.

<sup>98</sup> Un Innovation Network, *BI and COVID-19 - Experiences across the UN*, <https://www.uninnovation.network/behavioural-insights> (last visited 7.12.2020)

not infringed: the creation of so-called «nudge units», i.e. specialized teams of experts working to produce and support behaviourally informed regulation as part of the governmental activities<sup>99</sup>. Once drawn into the legal system, in fact, the employment of behavioural measures on behalf of public entities can be better controlled and made subject both to new and traditional means of scrutiny. In this sense, the leading role in setting up such teams (inside or to the side of governments) belongs to the UK, where the Behavioural Insights Team (BIT), founded in 2010 as part of David Cameron's Cabinet Office and now partly privatized, has run more than 750 projects and has offices around the world, including Toronto, New York, Singapore and Sydney<sup>100</sup>. Today similar units or teams can be found in a number of countries worldwide (such as USA, Australia, Canada, Denmark, France, Germany or even India and Peru)<sup>101</sup>, but also at regional (e.g. the BIU, Behavioural Insights Unit of Ontario)<sup>102</sup> and international level (e.g. within the UN Development Network)<sup>103</sup>.

In conclusion, it is now clear that the concerns about the effects nudges may have on individual's rights and the legal system as a whole have not prevented behavioural measures from being increasingly employed in public policy. Nudges are a sensitive tool, since they bring into play the relationship between power and liberty, where an equilibrium can only be found through an established system of checks and balances<sup>104</sup>. Indeed, their impact is closely connected not only to the outcomes they want to achieve, but also to the source of power they emanate from. Whether nudges are employed in the private or in the public sector, by private companies or branches of the government, whether they are informed by centralized or de-centralized nudge-units, indeed plays a role in defining the impact of nudges and the possible means of scrutiny.

In light of this, further research will be needed to accurately assess how they interact with democratic values and effectively complement the role of more traditional regulatory tools<sup>105</sup>. Like any other policy instrument, nudges will also have to face the changes in society brought about by the digitalization era and be ready to increasingly look at so-called «digital nudging»<sup>106</sup>. What is more, the current global pandemic has raised another crucial question for the application of behavioural insights as policy tools: can they be helpful to fight the new COVID-19?

## 5. Nudging for health: the relationship between behaviour and well-being

It has been held that the use of behavioural insights nowadays «spreads contagiously across jurisdictions»<sup>107</sup>. In the current climate, no definition of this phenomenon could sound more appropriate. As the new epidemic spreads, in fact, so does the number of governments and international organiza-

<sup>99</sup> H. STRABHEIM, S. BECK, *Introduction to the Handbook of Behavioural Change and Public Policy*, cit., 1-21.

<sup>100</sup> See <https://www.bi.team/our-offices/> (last visited 20.11.2020)

<sup>101</sup> Z. AFIF, W.W. ISLAN, O. CALVO-GONZALEZ, A.G. DALTON, *Behavioral Science Around the World: Profiles of 10 Countries*, Washington, D.C., 2019, 6.

<sup>102</sup> See <https://www.ontario.ca/page/behavioural-insights> (last visited 28.11.2020).

<sup>103</sup> Un Innovation Network, *BI and COVID-19 - Experiences across the UN*, cit.

<sup>104</sup> A. ALEMANNI, A. SPINA, *Nudging legally: On the checks and balances of behavioural regulation*, cit., 429-456.

<sup>105</sup> H. STRABHEIM, S. BECK, *Introduction to the Handbook of Behavioural Change and Public Policy*, cit., 1-21.

<sup>106</sup> M. WEINMANN, C. SCHNEIDER, J. VOM BROCKE, *Digital Nudging*, in *Business & Information Systems Engineering*, 58, 6, 2016, 433-436.

<sup>107</sup> A. ALEMANNI, A. SPINA, *Nudging legally: On the checks and balances of behavioural regulation*, cit., 429-456.

tions that resort to behavioural regulation to reinforce the effectiveness of measures enacted to contain the outbreak. This is not only due to the current situation of emergency, but also to the fact that the health sector is particularly suitable for the application of nudges.

Thaler and Sunstein's book, in fact, already focused particular attention on this domain, where the use of RCTs (Randomized Control Trials)<sup>108</sup> is well-established and the possibility of accessing relevant data is wide<sup>109</sup>. But the reason for the success of these type of nudges traces back to the very definition of health, described by the WHO as a «state of complete physical, mental and social well-being» (and not merely as the absence of disease)<sup>110</sup>, thus potentially justifying any behavioural practice targeting «health, wealth and happiness»<sup>111</sup>. It is not a surprise, then, that among the policy fields where behavioural tools are mostly employed (namely competition, consumer protection, employment, energy, environment, health, finance, taxation, and transport)<sup>112</sup>, the health sector comes second only to that of finance<sup>113</sup>. The inherent sensitiveness of this domain calls for accurate and well-planned interventions, further ranking this field as the most studied to date<sup>114</sup>, covering together with the environmental one two thirds of the studies on behavioural regulation conducted between Europe and the US<sup>115</sup>. The picture makes even more sense considering that most of the diseases in the world could be reduced by a significant amount if only people changed their behaviour: one needs only to think only about obesity or smoke-related illnesses<sup>116</sup>.

In this light, therefore, the way is open for a number of health-promoting nudges and, after organ donation defaults<sup>117</sup>, standard food options at coffee-break buffets<sup>118</sup> or shop display bans on tobacco products<sup>119</sup>, policy-makers have recently had to become acquainted with another type of health-related measure, i.e. nudges aimed at slowing the COVID-19 outbreak.

<sup>108</sup> J.M. KENDALL, *Designing a research project: randomised controlled trials and their principles*, *Emergency Medicine Journal*, 20, 2003, 164-168.

<sup>109</sup> D. HUMMEL, A. MAEDCHE, *How Effective Is Nudging? A Quantitative Review on the Effect Sizes and Limits of Empirical Nudging Studies*, cit.

<sup>110</sup> *Preamble of the Constitution of the World Health Organization*, New York, 22 July 1946, available [https://www.who.int/governance/eb/who\\_constitution\\_en.pdf?ua=1](https://www.who.int/governance/eb/who_constitution_en.pdf?ua=1) (last visited 29.11.2020).

<sup>111</sup> R.H. THALER, C.R. SUNSTEIN, *Nudge: Improving Decisions About Health, Wealth and Happiness*, cit.

<sup>112</sup> J.S. LOURENÇO, E. CIRIOLO, S.R. ALMEIDA, X. TROUSSARD, *Behavioural Insights Applied to Public Policy: European Report 2016*, cit.

<sup>113</sup> OECD, *Behavioural Insights and Public Policy: Lessons from Around the World*, cit.

<sup>114</sup> C.R. SUNSTEIN, L.A. REISCH, M. KAISER, *Trusting nudges? Lessons from an international survey*, cit., 1417-1443.

<sup>115</sup> D. HUMMEL, A. MAEDCHE, *How Effective Is Nudging? A Quantitative Review on the Effect Sizes and Limits of Empirical Nudging Studies*, cit.

<sup>116</sup> S. DIEPEVEEN, T. LING, M. SUHRCKE, M. ROLAND, T.M. MARTEAU, *Public acceptability of government intervention to change health-related behaviours: a systematic review and narrative synthesis*, in *BMC Public Health*, 13:756, 2013.

<sup>117</sup> E.J. JOHNSON, D.G. GOLDSTEIN, *Do Defaults Save Lives?*, in *Science*, 302, 2003, 1338-1339, <http://tenudge.eu/project/organ-donation/> (last visited 28.12.2020); J.S. LOURENÇO, E. CIRIOLO, S.R. ALMEIDA, X. TROUSSARD, *Behavioural Insights Applied to Public Policy: European Report 2016*, cit.

<sup>118</sup> *Apples vs. Brownies: A Field Experiment in Rearranging Conference Snacking Buffets to Reduce Short-Term Energy*, <http://tenudge.eu/project/apples-vs-brownies-a-field-experiment-in-rearranging-conference-snacking-buffets-to-reduce-short-term-energy/> (last visited 28.12.2020).

<sup>119</sup> J.S. LOURENÇO, E. CIRIOLO, S.R. ALMEIDA, X. TROUSSARD, *Behavioural Insights Applied to Public Policy: European Report 2016*, cit.

As a matter of fact, as soon as the virus crossed borders, a number of national and regional governments, as well as international organizations, realized the potentials of behavioural insights as policy tools in the fight against this unknown disease and started to promote behaviourally-based initiatives.

Ireland was one of the first countries to do this, and the prompt reaction of a Dublin hospital to the first COVID-19 cases was deemed exemplary of the opportunity behavioural sciences represent in the current pandemic. Right after the entrance door visitors of the hospital could not miss a red stop sign placed to the side of a hand-sanitizer dispenser. At the front desk people were then asked whether they had used it or not and, those who didn't, could either go back to the one at the entrance or use one of the others placed in strategic points of the building (e.g. next to lifts)<sup>120</sup>. By putting together different insights, namely salience, enforcement of a social norm, and indirect social disapproval for those who deviate from it, this initiative turned out to be very effective. In the country, indeed, proposals of this type are coordinated by the Irish Behavioural Research Unit (BRU) of the Economic and Research Institute (ESRI), which has also published a number of research papers on the issue of behavioural insights and COVID-19, dealing for instance with how behavioural sciences can be helpful in fighting the virus<sup>121</sup>, or with the role of emotional messaging in prompting social distancing<sup>122</sup>.

Another country which has turned to behavioural action is Italy. In April 2020, the Municipality of Rome launched, in collaboration with the Centre for Experimental Studies of Internet, Entertainment and Gambling (CESIEG) of Luiss University, a campaign that availed itself of nudge theory to increase compliance with lock-down measures among young people<sup>123</sup>. Under the initiative, high school students were asked to post a picture on social media in the time slot devoted to happy hour, when they usually sit and chat having a drink at a bar, showing that they were instead busy with other but equally «satisfactory» activities. The best photos were then selected and the winners of the contest were rewarded with an I-pad<sup>124</sup>.

In Germany the Wirksam Regieren (the German Behavioural Unit) has in place a «Together for Infection Prevention» programme, that has been shown to improve hand hygiene in hospitals up to 84-86%<sup>125</sup>. Together with the case-studies on anti-COVID-19 measures published by the German consultancy firm BEHAVIA, these results could be effectively used to slow the spread of the virus<sup>126</sup>.

<sup>120</sup> P. LUNN, C. BELTON, C. LAVIN, F. MCGOWAN, S. TIMMONS, D. ROBERTSON, *Using Behavioural Science to Help Fight the Coronavirus*, cit.

<sup>121</sup> *Ibidem*.

<sup>122</sup> P. LUNN, S. TIMMONS, C. BELTON, M. BARJAKOVÁ, H. JULIENNE, C. LAVIN, *Motivating social distancing during the COVID-19 pandemic: An online experiment*, in *ESRI Working Paper 658*, Dublin, 2020.

<sup>123</sup> D. DI CAGNO, *Nudging al Tempo del Coronavirus*, in *Luiss Open*, 8 April 2020, <http://bit.ly/3kdZbT9> (last visited 3.12.2020).

<sup>124</sup> *Ibidem*.

<sup>125</sup> See <https://www.bundesregierung.de/breg-en/issues/wirksam-regieren-with-citizens-for-citizens/topics/patient-safety-in-hospitals-323332> (last visited 4.07.2020).

<sup>126</sup> See <https://behavia.de/wp-content/uploads/2020/05/Behavia-Poster-Combating-Corona-with-Behavioral-Insights.pdf> (last visited 2.12.2020).

The New Zealand Prime-Minister, instead, relied on «Fun Theory» to encourage families to stay home during Easter last year, asking children to hang up in their windows self-drawn Easter eggs, instead of participating in the traditional egg hunts in their neighbourhoods<sup>127</sup>.

This behavioural technique is also called «gamification» and it is advocated by the Interamerican Development Bank too, which underlines its potential in making restrictive measures more sustainable over time<sup>128</sup>.

Even the UN Innovation Lab in Egypt put in place a partnership with local telecommunication operators to contribute to flattening the curve, by encouraging physical distancing through the use of behaviourally informed interventions delivered through targeted SMS messages<sup>129</sup>.

In the private sector, instead, the research firm BUSARA issues studies and proposals on the tackling of the virus in accordance with its aim of applying behavioural insights to the development of the Global South<sup>130</sup>.

These few examples show how nudges can play a role in the fight against the new coronavirus. Yet this is also possible because behavioural insights have a history of contribution to the management of infectious diseases. Indeed, the action against COVID-19 can count on research, studies and experience developed during past SARS, H1N1 and Ebola outbreaks, which underlined that effective action in the face of a large-scale epidemic must rely not only on an efficient organization of the healthcare system, but also on the changing of individual behaviours<sup>131</sup>. Accordingly, academic work shows that there are a number of factors to take into consideration when designing behavioural regulation in this field.

## 6. Behavioural insights and infectious diseases

Infectious diseases are historically those that cause the highest number of deaths. The bubonic plague, for instance, caused alone the death of nearly 30% of the European population<sup>132</sup>. This, coupled with the great uncertainty that usually accompanies the outbreak of new diseases, where often there is «still not enough evidence» to carry out unchallengeable decisions<sup>133</sup>, calls for a multifaceted type of action. In the case of behavioural responses to a virus, Bish and Michie classify measures into three categories: preventive (such as washing hands or wearing a mask); avoidant (e.g. quarantine or

<sup>127</sup> B. CHAPPEL, *The Easter Bunny is an Essential Worker New Zealand's Ardern Says*, in *NPR*, 7 April 2020, <https://www.npr.org/sections/coronavirus-live-updates/2020/04/07/828839205/the-easter-bunny-is-an-essential-worker-new-zealands-ardern-says> (last visited 5.12.2020).

<sup>128</sup> C. PARILLI, C. SCARTASCINI, *A Conversation with Cass Sunstein on Behavioral Science and Using Nudges: Recommendations for Overcoming Covid-19*, in *IDB*, 18 May 2020, <https://blogs.iadb.org/ideas-matter/en/a-conversation-with-cass-sunstein-on-behavioral-science-and-using-nudges-recommendations-for-overcoming-covid-19/> (last visited 5.12.2020).

<sup>129</sup> Un Innovation Network, *BI and COVID-19 - Experiences across the UN*, cit.

<sup>130</sup> See <https://www.busaracenter.org/busara-stand-against-covid19> (last visited 2.12.2020).

<sup>131</sup> P. LUNN, C. BELTON, C. LAVIN, F. MCGOWAN, S. TIMMONS, D. ROBERTSON, *Using Behavioural Science to Help Fight the Coronavirus*, cit.

<sup>132</sup> A. GIARDINA, G. SABBATUCCI, V. VIDOTTO, *Nuovi Profili Storici. Dall'XI Secolo al 1650*, Roma-Bari, 2007, 189.

<sup>133</sup> M.C. WEINSTEIN, K.A. FREEDBERG, E.P. HYLE, A.D. PALTIEL, *Waiting for Certainty on Covid-19 Antibody Tests — At What Cost?*, in *The New England Journal of Medicine*, 383:e37, 2020.

working from home); management of the disease (for example, taking medications)<sup>134</sup>. Since a cure has not yet been identified, the response to COVID-19 must necessarily rest on preventive and avoidant measures. Their effectiveness, however, also depends on the demographic and psychological factors that can affect compliance with these norms<sup>135</sup>.

On the demographic side, for example, age, gender, educational level and even marital status seem to influence compliance with protective behaviours during a pandemic. Being old, female, educated and married raises the chances that an individual will apply the specific measure<sup>136</sup>. For example, a study carried out in the UK showed that young people were less likely to carry tissues with them after the H1N1 influenza<sup>137</sup>. This seems in line with the current trend about COVID-19, where young people, especially males, are most reluctant to adhere to behavioural guidelines<sup>138</sup>. On the psychological side, then, policy-makers should not neglect the role played by perceived susceptibility to disease, stress and anxiety, perceived effectiveness of the preventive behaviour, as well as social norms and trust in authorities' communication about the disease. When people worry about getting infected, they are more prone to rely on informal rather than official sources of information; while if they have the feeling that the preventive behaviour is actually effective, this will boost their trust in formal sources of information<sup>139</sup>.

Hence, these psychological factors can also have an impact on those basic behaviours we have been asked to follow lately, in order to hinder the spread of SARS-CoV-2.

Take for example isolation. Since we are, as Aristotle defined us, «social animals», the lack of social interactions can lead people to experience anxiety, distress and irritability in the short term, but also depression and substance abuse in the long run<sup>140</sup>. But it has also already been highlighted that people's way of acting often depends on what others do, think, approve or disapprove<sup>141</sup>. Therefore, a way to help citizens coping with isolation can be precisely that of nudging them with messages that provide important social norms, such as «the overwhelming majority of people in your community believes that everyone should stay home»<sup>142</sup>.

<sup>134</sup> A. BISH, S. MICHIE, *Demographic and attitudinal determinants of protective behaviours during a pandemic*, in *Scientific Evidence Base Review*, 2010

<sup>135</sup> *Ibidem*.

<sup>136</sup> *Ibidem*.

<sup>137</sup> G.J. RUBIN, H.W.W. POTTS, et al., *The impact of communications about swine flu (influenza A H1N1v) on public responses to the outbreak: results from 36 national telephone surveys in the UK*, in *Health Technology Assessment*, 14, 4, 2010.

<sup>138</sup> V. ROY-CHOWHDURY, G. TAGLIAFERRI, M. EGAN, D. PERERA, A. MOTTERSHAW, *Young men are hardest to engage on coronavirus guidance*, <https://www.bi.team/blogs/young-men-are-hardest-to-engage-on-coronavirus-guidance/> (last visited 29.11.2020).

<sup>139</sup> Q.Y. LIAO, B. COWLING, et al., *Situational Awareness and Health Protective Responses to Pandemic Influenza A (H1N1) in Hong Kong: A Cross-Sectional Study*, in *Plos One*, 5, 10, 2010.

<sup>140</sup> M.A. CAVA, K.E. FAY, H.J. BEANLANDS, E.A. MCCAY, R. WIGNALL, *Risk perception and compliance with quarantine during the SARS outbreak*, in *Journal of Nursing Scholarship*, 37, 4, 2005, 343-347, in P. LUNN, C. BELTON, C. LAVIN, F. MCGOWAN, S. TIMMONS, D. ROBERTSON, *Using Behavioural Science to Help Fight the Coronavirus*, cit.

<sup>141</sup> R.B. CIALDINI, N.J. GOLDSTEIN, *Social influence: compliance and conformity*, in *Annu. Rev. Psychol.*, 55, 2004, 591-621; J.J. VAN BAVEL, et al., *Using Social and Behavioural Science to Support COVID-19 Pandemic Response*, cit., 460-471.

<sup>142</sup> *Ibidem*.

Psychology, and the way it interacts with behaviour, can then be used to nudge people towards, for instance, hand-washing. A study of the VU University Medical Centre in the Netherlands relied on two posters, placed next to hand-sanitizer dispensers, to improve hand-hygiene in a hospital. The first poster played on the so-called «bandwagon effect», i.e. people increasingly adopt a behaviour if shown that others have already done so, and said «Half of healthcare workers perform well in hand-hygiene. Which category do you belong to?»; the second, saying «40% increase in hand hygiene, 40% decrease in healthcare-associated infections», appealed to loss-aversion, i.e. the risk of losing something outweighs the chance of gaining something when we have to make a decision<sup>143</sup>.

This study also shows that healthcare providers too sometimes need to be nudged toward quality performance<sup>144</sup>, not only in their everyday activities, but especially during a pandemic in which nurses and doctors are asked for significant effort and sacrifice<sup>145</sup>. Previous studies about the 2003 SARS outbreak, in fact, outlined that stress and distress can have serious consequences on healthcare personnel<sup>146</sup>.

Yet what all these insights highlight is that a large part of how behavioural measures are used in the context of preventing infectious disease depends on communication. The way information is framed influences the public's reaction, and in order to be effective it must be accurate, rapid and must also combine the need to spread awareness with that of mitigating the threat<sup>147</sup>. Thus, the delivery of information during a pandemic is not an easy task: the speed with which a virus can spread, the lack of knowledge about the disease or its incubation period and uncertainty about how many people are actually affected, are only a few of the elements that make communication a challenge<sup>148</sup>.

Additionally, governments also have to deal with people's emotions, who instinctively react to threat in either a positive or negative way. The most common negative response is fear, useful when it leads to reaction, but detrimental when individuals do not feel able to overcome the threat<sup>149</sup>. Yet, being positive has its shortcomings too: people tend to be overly optimistic, convinced that bad

<sup>143</sup> E. GREEN, *Coronavirus highlights how "nudge theory" could address hand hygiene and other challenges in healthcare*, in *NS Healthcare*, 24 March 2020, <https://www.ns-healthcare.com/analysis/coronavirus-nudge-theory-hygiene-challenges-healthcare/> (last visited 14.12.2020).

<sup>144</sup> World Bank Group, *World Development Report 2015: Mind, Society, and Behavior*, Washington, D.C., 2015, 146-156.

<sup>145</sup> *Coronavirus, il sacrificio dei camici bianchi. I medici morti sono in tutto 51*, [https://www.ansa.it/canale\\_salutebenessere/notizie/sanita/2020/03/25/coronavirus-protezione-civile-governo\\_e69626f3-e2f5-48fe-ae6d-18cca6266693.html](https://www.ansa.it/canale_salutebenessere/notizie/sanita/2020/03/25/coronavirus-protezione-civile-governo_e69626f3-e2f5-48fe-ae6d-18cca6266693.html) (last visited 12.12.2020).

<sup>146</sup> X. LIU, M. KAKADE, C.J. FULLER, B. FAN, Y. FANG, J. KONG, P. WU, *Depression after exposure to stressful events: lessons learned from the severe acute respiratory syndrome epidemic*, in *Comprehensive psychiatry*, 53, 1, 2012, 15-23; P. WU, X. LIU, Y. FANG, B. FAN, C.J. FULLER, Z. GUAN, I.J. LITVAK, *Alcohol abuse/dependence symptoms among hospital employees exposed to a SARS outbreak*, in *Alcohol & Alcoholism*, 43, 6, 2008, 706-712.

<sup>147</sup> Y. JIN, L. AUSTIN, S. VIJAYKUMAR, H. JUN, G. NOWAK, *Communicating about infectious disease threats: Insights from public health information officers*, in *Public Relations Review*, 45, 2018, 167-177.

<sup>148</sup> *Ibidem*.

<sup>149</sup> K. WITTE, M. ALLEN, *A meta-analysis of fear appeals: implications for effective public health campaigns*, in *Health Educ. Behav.*, 27, 2000, 591-615; J.J. VAN BAVEL, et al., *Using Social and Behavioural Science to Support COVID-19 Pandemic Response*, cit., 460-471.



things will not happen to them<sup>150</sup>, and this can lead them to downplay the risk for themselves or others<sup>151</sup>.

Another problem is represented by fake news and misinformation. Phenomena like conspiracy theories, which emerged shortly after the first COVID-19 cases<sup>152</sup>, or «infodemic» practices<sup>153</sup>, can have serious consequences and lead to prejudice and discrimination, political polarization and panic reactions<sup>154</sup>. For this reason, in June 2020, the European Commission issued a Joint Communication to tackle the problem in the COVID-19 crisis, since «disinformation in times of the coronavirus can kill»<sup>155</sup>.

In addition, communication is essential for fostering adherence to preventive measures. Appealing to moral values, reinforcing a sense of community and underlining, again, what other people are doing increases the likelihood that citizens will stick to good behavioural practices<sup>156</sup>. Similarly, people can be nudged to comply with specific behaviours when these are shared by reliable spokespersons or celebrities. For example, in 2011, after that former Brazilian President Lula da Silva had widely and publicly discussed his throat cancer, recognizing in his smoking habits the source of the disease, interest in the topic rose significantly and Brazil passed new anti-smoking legislation<sup>157</sup>. During the first COVID-19 lock-down, the same rationale probably lay behind the photo published on Twitter of Portuguese President Marcelo Rebelo de Sousa that, as a common citizen, casually shops at a local grocery store wearing a mask and respecting social distancing<sup>158</sup>. The same reasoning lies behind the invite to stay home of several show business personalities that appeared on the national Italian TV channels during quarantine<sup>159</sup>.

To sum up, the idea is that behavioural science can, and indeed does, provide meaningful insights in the fight against infectious diseases. But as health is not only the absence of disease, so its safeguarding does not only depend on healthcare providers. Health, instead, is «co-created by patients, doc-

<sup>150</sup> T. SHAROT, 'The optimism bias', in *Curr. Biol.*, 21, 2011, R941-R945; J.J. VAN BAVEL, et al., *Using Social and Behavioural Science to Support COVID-19 Pandemic Response*, cit., 460-471.

<sup>151</sup> P. LUNN, C. BELTON, C. LAVIN, F. MCGOWAN, S. TIMMONS, D. ROBERTSON, *Using Behavioural Science to Help Fight the Coronavirus*, cit.

<sup>152</sup> E.G. ELLIS, *The coronavirus outbreak is a petri dish for conspiracy theories*, in *Wired*, 2 April 2020, <https://www.wired.com/story/coronavirus-conspiracy-theories/> (last visited 13.12.2020).

<sup>153</sup> A. IANNUZZI, *Se il coronavirus diventerà virale, c'è il rischio di "infodemia"*, in *La Repubblica*, 3 February 2020, <https://rep.repubblica.it/pwa/giornata/2020/02/02/news/infodemia-247440245/> (last visited 13.12.2020).

<sup>154</sup> J.J. VAN BAVEL, et al., *Using Social and Behavioural Science to Support COVID-19 Pandemic Response*, cit., 460-471.

<sup>155</sup> European Commission, *Coronavirus: EU strengthens action to tackle disinformation*, [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_20\\_1006](https://ec.europa.eu/commission/presscorner/detail/en/ip_20_1006) (last visited 08.01.2021).

<sup>156</sup> J.J. VAN BAVEL, et al., *Using Social and Behavioural Science to Support COVID-19 Pandemic Response*, cit., 460-471.

<sup>157</sup> World Bank Group, *World Development Report 2015: Mind, Society, and Behavior*, cit., 146-156.

<sup>158</sup> F. TORTORA, *Il Presidente del Portogallo in pantaloncini e mascherina fa la coda al supermercato*, in *Il Corriere della sera*, 19 May 2020, [https://www.corriere.it/moda/cards/presidente-portogallo-pantaloncini-mascherina-fa-coda-supermercato/abbigliamento-casual-principale.shtml?refresh\\_ce-cp](https://www.corriere.it/moda/cards/presidente-portogallo-pantaloncini-mascherina-fa-coda-supermercato/abbigliamento-casual-principale.shtml?refresh_ce-cp) (last visited 20.11.2020).

<sup>159</sup> F. SFORZA, *#iorestoacasa, la campagna social contagia i vip*, in *La Stampa*, 9 March 2020, <https://www.lastampa.it/cronaca/2020/03/09/news/iorestoacasa-la-campagna-social-contagia-i-vip-1.38570293> (last visited 18.11.2020).

tors, nurses, other experts, community health workers and household members»<sup>160</sup>. This however means that, as in any type of collaboration, providers and recipients also share responsibilities, especially when the measures adopted to promote health are not traditional ones, but might touch upon fundamental individual rights and democratic principles.

## 7. The behavioural response to the virus: different approaches and institutional setups

The above section discussed the contribution of behavioural science to public policy in the case of the health hazard caused by infectious diseases. Clearly, the extent to which such tools are resorted to varies from country to country, and the impact they might have on the legal system and its subjects will also depend on the way they are institutionalized. Indeed, as mentioned in the previous part of this work, nudges can be seen as more or less acceptable on the basis of the source of power they emanate from and the objectives they aim to achieve.

To these ends, countries can be classified into three groups, based on the approval rates of citizens with respect to different types of nudges. These are «principled pro-nudge nations», where there is an overall support for nudges and where it is possible to identify the reasons behind minority disapproval; «cautiously pro-nudge nations», characterized by systematic and significant lower approval rates; and «overwhelmingly pro-nudge nations», where nudges seem to enjoy a particularly high consensus.<sup>161</sup> What is interesting to note here is that levels of approval seem to match specific institutional setups, i.e. higher approval rates are found mainly in those countries that have structured and centralized nudge units. Moreover, these findings also match those which relate to the use of behavioural insights in the current pandemic, meaning that countries that can rely on institutionalized behavioural teams have more widely adopted nudges to strengthen preventive measures against COVID-19. I will discuss these findings with reference to three countries: China, Denmark and the UK.

China, and in particular the city of Wuhan, has been the centre of this new acute respiratory syndrome, which has come to be known as coronavirus disease 2019 (COVID-19)<sup>162</sup>. Criticisms have been made against the way this country initially dealt with the outbreak<sup>163</sup> and its lack of openness with the international community in sharing information about the virus<sup>164</sup>, some even claiming that

<sup>160</sup> N. ASHRA, *Rx: Human Nature*, in *Harvard Business Review*, 91, 4, 2013, 119-25; World Bank Group, *World Development Report 2015: Mind, Society, and Behavior*, cit., 146-156.

<sup>161</sup> C.R. SUNSTEIN, L.A. REISCH, J. RAUBER, *Behavioral insights all over the world? Public attitudes toward nudging in a multi-country study*, 2017, 1-31.

<sup>162</sup> F. ZHOU, et al., *Clinical course and risk factors for mortality of adult inpatients with COVID-19 in Wuhan, China: a retrospective cohort study*, in *The Lancet*, 395, 10229, 2020, 1054-1062.

<sup>163</sup> *Coronavirus, la Cina ammette lacune nel sistema sanitario*, <https://www.rainews.it/dl/rainews/articoli/Coronavirus-Cina-ammette-lacune-nel-sistema-sanitario-84d1d516-b5c7-4ece-ba5f-b6a6d5c19.html> (last visited 11.12.2020).

<sup>164</sup> F. RAMPINI, *Coronavirus, processo alla Cina*, in *La Repubblica*, 22 April 2020, [https://rep.repubblica.it/pwa/generale/2020/04/22/news/coronavirus\\_stati\\_uniti\\_processo\\_cina\\_pecchino\\_dat\\_i\\_errori\\_accuse-254747725/](https://rep.repubblica.it/pwa/generale/2020/04/22/news/coronavirus_stati_uniti_processo_cina_pecchino_dat_i_errori_accuse-254747725/) (last visited 11.12.2020).

SARS-CoV-2 was circulating much earlier than communicated by the local authorities<sup>165</sup>. Yet the Chinese approach has also been praised for its effectiveness<sup>166</sup>.

Since January 23<sup>rd</sup> 2020, in fact, China has put in place a massive set of lockdown measures, shutting down public transport, factories, offices, and schools<sup>167</sup>. Among them, however, no mention is made of nudges or any other kind of behavioural measure. This is not a surprise: finding information about behavioural regulation in China is in general very hard. However, Sunstein, Reisch and Rauber classify China (together with South Korea), as an «overwhelmingly pro-nudge nation», where approval rates for nudges are «highest of all»<sup>168</sup>. This could be motivated by an overall endorsement of the aims that specific nudges wish to achieve, for example environmental protection. China is indeed a very polluted country, and so nudges that protect the environment and citizens' health are met with consensus<sup>169</sup>. But China is also one of those few states that the OECD reports as not having any nudge unit, either inside or outside government<sup>170</sup>.

Such contrasting results could thus be better explained by a second fact, i.e. that China is an authoritarian regime, where the Communist Party identifies itself with the state. In this context, rights as freedom of speech, informational self-determination or freedom of choice are often interfered with through mandates or bans and, therefore, behavioural measures might not generate too much discussion. Additionally, the challenge of administrative acts in China is particularly difficult even when it comes to traditional regulatory tools<sup>171</sup>; what chances have measures that are inherently characterized by a degree of unawareness of the nudge then? Moreover, the Chinese system of «Social Credit», dividing citizens into «good» and «bad» ones, clearly does not work as an incentive to challenge governmental decisions<sup>172</sup>.

An exemplary model of how to integrate behavioural insights in the fight against the virus is instead to be found in Denmark. Here, for example, the Danish consultancy firm KRUKOW, made available online a «COVID-19 nudge kit» to be downloaded and used in schools, workplaces, residential areas and supermarkets. This kit consists of footprints that can be placed on the floor and make social distancing «intuitive and easy»<sup>173</sup>. Such footprints have been designed by international artists, but the

<sup>165</sup> B. SIMONETTA, *Lo studio di Harvard: il coronavirus circolava in Cina già in estate. Pechino: ridicolo*, in *il Sole 24ore*, 9 June 2020, <https://www.ilsole24ore.com/art/lo-studio-harvard-coronavirus-circolava-cina-gia-estate-pechino-ridicolo-ADaxujW> (last visited 12.12.2020).

<sup>166</sup> G. SANTEVECCHI, *Coronavirus, così il modello cinese ha funzionato: soltanto 36 nuovi casi a Wuhan*, in *Il Corriere della Sera*, 9 March 2020, [https://www.corriere.it/esteri/20\\_marzo\\_09/coronavirus-wuhan-nuovi-casi-6b1bdccc-61eb-11ea-9897-5c6f48cf812d.shtml](https://www.corriere.it/esteri/20_marzo_09/coronavirus-wuhan-nuovi-casi-6b1bdccc-61eb-11ea-9897-5c6f48cf812d.shtml) (last visited 10.12.2020).

<sup>167</sup> China Watch Institute, Institute of Contemporary China Studies, School of Health Policy and Management, *Chinas Fight Against COVID-19*, 2020, <http://www.chinadaily.com.cn/pdf/2020/Chinas.Fight.Against.COVID-19-0420-final-2.pdf> (last visited 29.11.2020).

<sup>168</sup> C.R. SUNSTEIN, L.A. REISCH, J. RAUBER, *Behavioral insights all over the world? Public attitudes toward nudging in a multi-country study*, cit., 1-31.

<sup>169</sup> *Ibidem*.

<sup>170</sup> OECD, *Behavioural Insights*, cit.

<sup>171</sup> B. MARCHETTI, *Searching for the Fundamentals of Administrative Law*, Torino, 2019.

<sup>172</sup> C.R. SUNSTEIN, L.A. REISCH, J. RAUBER, *Behavioral insights all over the world? Public attitudes toward nudging in a multi-country study*, cit., 1-31.

<sup>173</sup> Krukow Behavioral Design, *Covid-19: Re-open to a safe and effective "new normal"*, <http://bit.ly/3bxfDcT> (last visited 27.12.2020).

company also offers templates that can be coloured and personalized by families and children. Once more, «gamification» comes into play. Krukow also organizes online workshops on nudging and COVID-19<sup>174</sup>.

Another set of initiatives comes from iNudgeyou, a research group on applied behavioural science that has run a number of projects not only at national, but also at international level, collaborating with the OECD, the World Bank and the European Commission<sup>175</sup>. This company received funding from the Innovation Fund Denmark for a «multistage project» applying behavioural insights to tackling the spread of the virus and contributing to the gradual «restart» of Denmark. With the support of the Danish Health Authority, iNudgeyou refers to the BASIC Toolkit produced by the OECD and works on interventions in the public and the private sector<sup>176</sup>.

The presence of these private companies reveals the institutional setup that lies behind the implementation of behavioural regulation in Denmark. This country is an example of a «networked model», where governmental departments at ministerial, municipal and organizational level apply behavioural insights with the support of private companies and academics<sup>177</sup>. The Danish approach thus consists of a sort of middle-ground between «central steering models», where there is a specialized team of the central government dealing with behavioural insights, and «project models», where such insights are employed on an ad hoc basis by specialized teams<sup>178</sup>. In other words, it is a system where different participants and experts, linked together by the Danish Nudging Network<sup>179</sup>, operate in between autonomy and integration into governmental structures<sup>180</sup>.

As such, Denmark belongs to the group of «cautiously pro-nudge nations», together with Hungary and Japan<sup>181</sup>. This may explain the decision not to opt for a centralized model, but not the vast number of initiatives undertaken by this country under the label of behavioural insights<sup>182</sup>. If higher approval rates are linked to an (at least seeming) endorsement of governmental policies, as is the case for China, lower levels should stem from a reduced trust in public institutions. Although this could be the case for Hungary or Japan, it could not for Denmark where, as in any other Scandinavian country, levels of trust in government are high<sup>183</sup>. Still, the rationale behind such a «cautious» approach might be precisely that trust. In Scandinavian nations people trust governments and governments trust people<sup>184</sup>, which makes it unnecessary for the former to enact strict rules, and for the latter to ask for extra checks on the ethics of those rules.

<sup>174</sup> *Ibidem*.

<sup>175</sup> See <https://inudgeyou.com/en/about/inudgeyou/> (last visited 30.11.2020).

<sup>176</sup> See <https://inudgeyou.com/en/covid-19/> (last visited 30.11.2020).

<sup>177</sup> Z. AFIF, W.W. ISLAN, O. CALVO-GONZALEZ, A.G. DALTON, *Behavioral Science Around the World: Profiles of 10 Countries*, cit.

<sup>178</sup> OECD, *Behavioural Insights and Public Policy: Lessons from Around the World*, cit.

<sup>179</sup> See <https://www.danishnudgingnetwork.dk/om-dnn/> (last visited 27.12.2020).

<sup>180</sup> H. STRABHEIM, S. BECK, *Introduction to the Handbook of Behavioural Change and Public Policy*, cit., 1-21.

<sup>181</sup> C.R. SUNSTEIN, L.A. REISCH, J. RAUBER, *Behavioral insights all over the world? Public attitudes toward nudging in a multi-country study*, cit., 1-31.

<sup>182</sup> Z. AFIF, W.W. ISLAN, O. CALVO-GONZALEZ, A.G. DALTON, *Behavioral Science Around the World: Profiles of 10 Countries*, cit.

<sup>183</sup> OECD, *Government at a Glance 2015*, Paris, 2015.

<sup>184</sup> *Ibidem*.

For example, the Danish government has in place a national programme for children that offers free vaccines against 10 different illnesses<sup>185</sup>. Despite the lack of any legal obligation to vaccinate, this initiative has brought vaccination rates in schools up to 90-100%<sup>186</sup>. Moreover, statistics show that immunization coverage for all universally recommended vaccines in Denmark never goes below 60-70%<sup>187</sup>.

In a context like this, it is probably not seen as paramount to have a centralized nudge-unit, that works as part of the government and whose acts can thus be better externally scrutinized through traditional channels. Moreover, Nordic countries are also characterized by great social equality, which would not be achieved if fundamental liberties were not recognized and respected. After all, «the best way to get trust is to earn it»<sup>188</sup>.

This mutual commitment has been evident, for instance, in Sweden's approach to the new coronavirus. Instead of imposing heavy lockdown measures, in fact, Swedish authorities counted to a great extent on citizens' self-responsibility, on the idea that, as Swedish Prime Minister said, «No one is alone in the crisis, but each person has a heavy responsibility»<sup>189</sup>. This does not mean that the approach was successful; in the long run the impact of COVID-19 on the population has indeed been heavier compared to that of other countries that opted for stricter measures<sup>190</sup>. Yet it is exemplary of this tight trust-relationship that underlies Scandinavian societies.

The third country analyzed here is the UK, which has a sound history of relying on behavioural insights in public policy. Indeed, in 2010 it was the first to set up a Behavioural Insight Team (BIT), which today has a worldwide leading role in informing behavioural regulation. As already outlined, the UK BIT runs a number of projects and RCTs inside and outside the country and, as soon as the first COVID-19 cases spread in Europe, it started to produce useful material in relation to the current pandemic too.

Its work on the application of behavioural insights and nudges to the management of the disease ranges from the framing of messages to support people in isolation<sup>191</sup>, to the monitoring of situations of domestic violence<sup>192</sup>. In addition to that, the BIT has for example found out that young men are less prone to follow guidelines of behaviour on coronavirus<sup>193</sup> and also that simply telling people to

<sup>185</sup> See <https://www.ssi.dk/vaccinationer/boernevaccination> (last visited 07.01.2021).

<sup>186</sup> See <https://www.ssi.dk/aktuelt/nyheder/2019/de-fleste-skoler-har-hoj-vaccinationsdakning> (last visited 20.12.2020).

<sup>187</sup> See <https://apps.who.int/gho/data/node.wrapper.immunization-cov> (last visited 20.12.2020); <https://www.dst.dk/da/Statistik/Sdg/03-sundhed-og-trivsel/delmaal-b/indikator-1> (last visited 20.12.2020).

<sup>188</sup> C.R. SUNSTEIN, L.A. REISCH, M. KAISER, *Trusting nudges? Lessons from an international survey*, cit., 1417-1443.

<sup>189</sup> M. SAVAGE, *Lockdown, what lockdown? Sweden's unusual response to coronavirus*, in *BBC News*, 29 March 2020, <https://www.bbc.com/news/world-europe-52076293> (last visited 17.12.2020).

<sup>190</sup> G. RACHMAN, *A very Swedish sort of failure*, in *Financial Times*, <https://www.ft.com/content/4f6ad356-9f61-4728-a9aa-3fa1f232035a> (last visited 22.12.2020).

<sup>191</sup> H. BURD, C. COLEMAN, *Using behavioural insights to create a covid-19 text service for the NHS*, <https://www.bi.team/blogs/using-behavioural-insights-to-create-a-covid-19-text-service-for-the-nhs/> (last visited 2.12.2020).

<sup>192</sup> C. CHAMBRAUD, *Domestic abuse: another emergency that needs to be addressed*, <https://www.bi.team/blogs/domestic-abuse-another-emergency-that-needs-to-be-addressed/> (last visited 16.12.2020).

<sup>193</sup> *Ivi*, 112.

stop touching their faces is not enough to prevent them from doing so, since it is an unconscious move that we do from 5 to 45 times per hour<sup>194</sup>, indeed «our favourite hobby»<sup>195</sup>. Worthy of note are also the findings about what kind of infographics make hand washing<sup>196</sup> and facemask wearing<sup>197</sup> posters more effective. In their review of posters from countries around the world, researchers determined that using bright colours and a step-by-step procedure can increase compliance with these practices. With an eye on the gradual reopening of the country, the BIT further analyzed how receiving a positive antibody test result affects the way individuals perceive risk and how they consequently behave<sup>198</sup>.

This vast amount of initiatives undertaken by the BIT, therefore, is perfectly in line with the UK's placement in the group of «principled pro-nudge nations», together with the US, France, Germany, Canada, and Australia, to name a few<sup>199</sup>. This positive mindset has led many of these countries to set up a nudge unit within the centre of Government and thus to follow the «central steering model»<sup>200</sup>. Others, such as the UK itself, have already moved towards a «diffuse model», i.e. behavioural regulation is implemented partly inside and partly outside the government (the BIT is now co-owned by the UK Government, the private group Nesta and its own employees)<sup>201</sup>. Whether centralized or diffused, however, the formation of these units can be seen not only as a way to focus on the application, support and promotion of the use of behavioural insights across governmental activities<sup>202</sup>, but also to legitimize these types of measures and strengthen accountability and scrutiny requirements. Indeed, these countries are mainly western democracies.

However, what characterizes «principled pro-nudge» nations, is that in their legal systems it is possible to identify specific principles that separate majority approval for nudges from the disapproval of a minority of citizens and, sometimes, precisely those principles can be the ground for requests for accountability of public measures. An example of this can be drawn directly from the current COVID-19 crisis.

<sup>194</sup> M. HALLSWORTH, *How to stop touching our faces in the wake of the coronavirus*, <https://www.bi.team/blogs/how-to-stop-touching-our-faces-in-the-wake-of-the-coronavirus/> (last visited 17.12.2020).

<sup>195</sup> R. SUGAR, *Why is it so hard stop touching your face*, in *Vox*, 23 March 2020, <https://www.vox.com/the-goods/2020/3/23/21185927/face-touching-hard-to-stop-why-coronavirus> (last visited 6.12.2020).

<sup>196</sup> M. EGAN, G. TAGLIAFERRI, V. ROY-CHOWDHURY, A. MOTTERSHAW, Y. XU, *Bright infographics and minimal text make handwashing posters more effective*, <https://www.bi.team/blogs/bright-infographics-and-minimal-text-make-handwashing-posters-most-effective/> (last visited 20.12.2020).

<sup>197</sup> M. EGAN, V. ROY-CHOWDHURY, R. PHILLIPS, Y. XU, *How to wear a facemask – result from an experiment with 4,099 UK adults*, <https://www.bi.team/blogs/how-to-wear-a-facemask-results-from-an-experiment-with-4099-uk-adults/> (last visited 2.12.2020).

<sup>198</sup> M. EGAN, D. PERERA, Y. XU, A. MOTTERSHAW, *Don't say it makes you "immune" – how you frame coronavirus antibody results matter*, <https://www.bi.team/blogs/dont-say-it-makes-you-immune-how-you-frame-coronavirus-antibody-results-matters/> (last visited 29.12.2020).

<sup>199</sup> C.R. SUNSTEIN, L.A. REISCH, J. RAUBER, *Behavioral insights all over the world? Public attitudes toward nudging in a multi-country study*, cit., 1-31.

<sup>200</sup> OECD, *Behavioural Insights and Public Policy: Lessons from Around the World*, cit.

<sup>201</sup> <https://www.bi.team/about-us/> (last visited 20.12.2020)

<sup>202</sup> *ibidem*.

When the first cases of infection were detected in the UK, the approach of the government seemed to mirror that of Sweden, yet it has not been quite the same. The UK government feared that faced with strict preventive measures, people would soon grow tired of forced isolation and experience «behavioural fatigue». For this reason, the Government thought that it was better to leave citizens free, nudge them towards protective behaviours, and encourage «herd immunity»<sup>203</sup>. Clearly, this has raised several criticisms, on the basis that a pandemic cannot be eradicated only by telling people «keep calm and wash your hands»<sup>204</sup>. In particular, doubts emerged as to the scientific evidence behind such «fatigue», and even behavioural scientists questioned the delayed imposition of lockdown measures on behalf of the British government. In an open letter to the UK Prime Minister Boris Johnson, 600 members of the behavioural scientific community underlined that while clearly behavioural science can be a useful tool in the fight against the virus, there is no reason to think that the concept of behavioural fatigue would undermine other, stricter interventions, aimed at ensuring social distancing<sup>205</sup>. The BIT itself declared that the concept of «behavioural fatigue» was not the product of its work, nor that of SPI-B, the group of scientists advising UK's Scientific Advisory Group on Emergencies. Yet members of the Unit underlined that the complexity of the situation at hand will inevitably create debates and challenges as to the role of science behind public action and, therefore, it confirmed its commitment to continue producing «robust empirical evidence» to inform public decisions about COVID-19 response<sup>206</sup>. Needless to say, this encouraged the UK Government to change its approach and align itself with the preventive measures adopted to contain the spread in other European countries.

This example is helpful to underline two key aspects of behavioural regulation. The first is the importance of scientific evidence in the application of nudges. Empirical findings are indeed the precondition for the application of behavioural insights as well as a major source for their legitimization. The second is that governmental endorsement of nudging policies does not mean that these will never be challenged. Behavioural units like the BIT are meant precisely to inform and advise public policy by supporting its work with accurate research and, when something goes wrong, by making sure that governments do not turn away from their responsibilities. In this way, the presence of such a group of behavioural experts, when institutionalized according to the model that best fits the cultural background of a given country, can guarantee transparency, accountability and public deliberation.

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<sup>203</sup> B. MUELLER, *As Europe Shuts Down, Britain Takes a Different, and Contentious, Approach*, in *The New York Times*, 13 March 2020, <https://www.nytimes.com/2020/03/13/world/europe/coronavirus-britain-boris-johnson.html> (last visited 13.12.2020).

<sup>204</sup> T. YATES, *Why is the government relying on nudge theory to fight the coronavirus?*, in *The Guardian*, 13 March 2020, <https://www.theguardian.com/commentisfree/2020/mar/13/why-is-the-government-relying-on-nudge-theory-to-tackle-coronavirus> (last visited 27.12.2020).

<sup>205</sup> U. HAHN, N. CHATER, D. LAGNADO, M. OSMAN, N. RAIHANI, *Why a Group of Behavioural Scientists Penned an Open Letter to the U.K. Government Questioning Its Coronavirus Response*, <https://behavioralscientist.org/why-a-group-of-behavioural-scientists-penned-an-open-letter-to-the-uk-government-questioning-its-coronavirus-response-covid-19-social-distancing/> (last visited 26.12.2020).

<sup>206</sup> D. HALPERN, H. HARPER, *Behavioural Insights, the WHO and COVID-19*, <https://www.bi.team/blogs/behavioural-insights-the-who-and-covid-19/> (last visited 2.01.2021).

## 8. Nudging and COVID-19: behavioural policy tools in the fight against the virus

The examples of China, Denmark and the UK made clear that, although there are several institutional models for the integration of behavioural insights into public policy, they are not mutually exclusive and can co-exist and evolve over time, depending on how each legal system is structured and how it approaches societal changes<sup>207</sup>. Nudges indeed act on the context in which people choose, which cannot but vary from one country to the other<sup>208</sup>. Yet this diversification of approaches should not be interpreted as lack of organization, rather as a sign of the «organic nature» through which these alternative regulatory tools are being applied in the diverse framework of public institutions worldwide<sup>209</sup>. For this reason, scholars and behavioural experts have increasingly tried to produce guidelines for the application of nudges in this multifaceted environment.

One of the first suggestions is to be found in Thaler and Sunstein's own acronym of NUDGES: iNcentives, Understand mappings, Defaults, Give Feedback, Expect error and Structure complex choices<sup>210</sup>. These should be the principles guiding good choice architecture, i.e. bringing people to focus on the incentives that are meaningful to their choices, supporting their ability to map decisions and to consider the most valuable options, using defaults, but also giving individuals feedback as to the choice they made, taking into account mistakes users may make and, finally, empowering decision-making in the face of complicated problems, preventing citizens from opting for the simplest (yet not necessarily the best) option just because they are overwhelmed by the number of factors that should instead be considered<sup>211</sup>.

A similar approach is suggested by the MINDSPACE framework, which underlines how behavioural insights can inform public policy by acting on a number of cognitive factors<sup>212</sup>, or the EAST framework, which instead focuses on making behavioural change Easy, Attractive, Social and Timely<sup>213</sup>. Given the context-related character of behaviour, then, any intervention should ensure that all the elements of the Behavioural Change Wheel (or COM-B model), are respected. This means that behavioural strategies must give people the psychological and physical skills to perform the action (Capability), provide social norms and physical resources to facilitate action (Opportunity) and ensure that decision-making is made both consciously and automatically, i.e. built into habits and routines so to make it easier (Motivation)<sup>214</sup>.

But for behavioural strategies to be successful, the most widely endorsed method is the Test-Learn-Adapt-Share approach. Behavioural regulation must, in fact, be backed by means to evaluate its ef-

<sup>207</sup> OECD, *Behavioural Insights and Public Policy: Lessons from Around the World*, cit.

<sup>208</sup> X. TROUSSARD, R. VAN BAVEL, *How Can Behavioural Insights Be Used to Improve EU Policy?*, cit.

<sup>209</sup> OECD, *Behavioural Insights and Public Policy: Lessons from Around the World*, cit.

<sup>210</sup> R. H. THALER, C. R. SUNSTEIN, *Nudge: Improving Decisions About Health, Wealth and Happiness*, cit., 100.

<sup>211</sup> *Ibidem*.

<sup>212</sup> P. DOLAN, M. HALLSWORTH, D. HALPERN, D. KING, R. METCALFE, I. VLAEV, *Influencing Behaviour: The Mindspace Way*, in *Journal of Economic Psychology*, Vol. 33, 2012, 264-277.

<sup>213</sup> M. HALLSWORTH, V. SNIJDER, H. BURD, et al., *Applying Behavioural Insights. Simple Ways to Improve Health Outcomes*, Doha, Qatar: World Innovation Summit for Health, 2016.

<sup>214</sup> S. MICHIE, J. RUBIN, R. AMLÖT, *Behavioural strategies for reducing covid-19 transmission in the general population*, in *BMJ*, 3 March 2020, <https://blogs.bmj.com/bmj/2020/03/03/behavioural-strategies-for-reducing-covid-19-transmission-in-the-general-population/> (last visited 22.12.2020).



fectiveness, which allow policy-makers to learn what works in a given setting and what not, with a view to adapting these results to the implementation of the measure<sup>215</sup>. Findings should then be shared with other behavioural practitioners, to build up an incremental body of scientific research that can meaningfully inform public policy<sup>216</sup>.

When consistent with these principles, behavioural insights have also been welcomed in EU public policy<sup>217</sup>, which has produced a «Better Regulation Toolbox», providing standards for the implementation, monitoring and evaluation of policy interventions<sup>218</sup>.

Similarly, the COVID-19 crisis also called for the establishment of guidelines as to how to integrate behavioural interventions within the framework of those adopted to contain the spread of the virus. In this context, it has already been argued that nudges can be helpful in a number of anti-COVID-19 actions, from hand washing to the framing of virus-related communication. An example is the adoption of the term «physical distancing» in place of «social distancing», to highlight that social contact is also possible when people are physically apart<sup>219</sup>. Moreover, discussions about nudging have also emerged in relation to the promotion of contact tracing apps like the Italian «Immuni», whose contribution can be significant only if downloaded by a sufficient number of people<sup>220</sup>. In December 2020, several months from its launch, in fact, Immuni only counted 10 million downloads<sup>221</sup>, against the 9 million reached by IO<sup>222</sup>, the public services app developed by the Italian government that provided, inter alia, for a «Christmas cashback»: a form of incentive to promote credit card payments<sup>223</sup>. Given the importance of promoting public health, governments and international organizations should work to boost social approval in preventive measures, identify credible sources of information, invite cooperation and make people aware of the benefits of protective behaviours, shielding them from misinformation and fake news. Most importantly, political leaders and members of the media should show universal approval of measures adopted to slow contagion, as not doing so causes different sections of the population to reach different conclusions about what the threat actually is and what falls under the definition of «appropriate behaviour»<sup>224</sup>.

<sup>215</sup> L. HAYNES, O. SERVICE, B. GOLDACRE, D. TORGERSON, *Test, Learn, Adapt: Developing Public Policy with Randomized Control Trials*, London, 2012, 5.

<sup>216</sup> OECD, *Behavioural Insights and Public Policy: Lessons from Around the World*, cit.

<sup>217</sup> H. STRABHEIM, S. BECK, *Introduction to the Handbook of Behavioural Change and Public Policy*, cit., 1-21.

<sup>218</sup> European Commission, *Better regulation toolbox*, [https://ec.europa.eu/info/law/law-making-process/planning-and-proposing-law/better-regulation-why-and-how/better-regulation-guidelines-and-toolbox/better-regulation-toolbox\\_en](https://ec.europa.eu/info/law/law-making-process/planning-and-proposing-law/better-regulation-why-and-how/better-regulation-guidelines-and-toolbox/better-regulation-toolbox_en) (last visited 8.12.2020).

<sup>219</sup> J.J. VAN BAVEL, et al., *Using Social and Behavioural Science to Support COVID-19 Pandemic Response*, cit., 460-471.

<sup>220</sup> S. COSIMI, *Il vicolo cieco dell'app di contact tracing: si dovrà penalizzare chi non la usa?*, in *Wired*, 4 April 2020, <https://www.wired.it/attualita/tech/2020/04/20/immuni-app-rischi-coronavirus/> (last visited 15.12.2020).

<sup>221</sup> See <https://www.immuni.italia.it/dashboard.html> (last visited 31.12.2020)

<sup>222</sup> See <https://io.italia.it/dashboard/> (last visited 31.12.2020)

<sup>223</sup> F. BINI, *App, IO batte Immuni: così il cashback ha spinto i download molto più dell'emergenza sanitaria*, in *La Repubblica*, 10 December 2020, [https://www.repubblica.it/economia/2020/12/10/news/app\\_io\\_e\\_immuni\\_i\\_grafici\\_a\\_confronto\\_cosi\\_il\\_cashback\\_ha\\_spinto\\_i\\_download\\_molto\\_piu\\_dell\\_emergenza\\_sanitaria-277620517/](https://www.repubblica.it/economia/2020/12/10/news/app_io_e_immuni_i_grafici_a_confronto_cosi_il_cashback_ha_spinto_i_download_molto_piu_dell_emergenza_sanitaria-277620517/) (last visited 31.12.2020)

<sup>224</sup> S. COSIMI, *Il vicolo cieco dell'app di contact tracing: si dovrà penalizzare chi non la usa?*, cit.

Such universal approval should be showed also in relation to the vaccination campaigns against the virus. The wide media coverage of the first vaccinations worldwide and, in particular, the live vaccination of politicians and public figures such as, for example, US President Joe Biden, can be a powerful means to boost people's confidence in the vaccine<sup>225</sup>.

Moreover, one cannot forget that a crucial factor to ensure suitability of nudges with a democratic rule is transparency. Accordingly, the Open Government partnership, a group of governments, civil society organizations, non-profits and businesses committed to enhancing transparency, accountability and public deliberation in different policy-making areas<sup>226</sup>, launched the campaign «Open response + Open Recovery»: the idea is that if governments provide accurate and transparent directives to citizens, citizens will be empowered to take responsible actions against the virus, thus in turn empowering governments to take the necessary measures to tackle the disease while safeguarding openness and integrity of decisions<sup>227</sup>.

Clearly, there are also those who criticize the use of behavioural science in a pandemic. In particular, it has been held that on the one hand, behavioural insights lack «psychological integrity», i.e. they predict irrational behaviours but do not explain why they occur<sup>228</sup>. Thus, especially in the situation of uncertainty brought about by the virus, those insights are mere speculation<sup>229</sup>. On the other hand, behavioural science is criticized as being inappropriate because it acts exactly against traditional state-imposed interventions, like lockdown measures<sup>230</sup>.

The question at this point therefore is: can nudges really be helpful in the fight against the virus? The answer is: yes.

What the above criticisms miss, then, is that firstly, nudges do not aim at establishing a theory of behaviour, as was the case for traditional economic theory, but they are meant to inform public policy on the basis of, as we have seen, empirical findings, that are dependent on the context in which these insights are applied<sup>231</sup>. Secondly, nudges do not act *against* traditional regulatory tools, but *together with them*. Abandoning measures like bans or economic incentives to promote specific public goals would not be either feasible or desirable. Behavioural insights are a way to *complement*, not *replace*, traditional regulation and, thus, to increase the means in the hands of policy-makers to understand complex problems that often have human behaviour at the core<sup>232</sup>.

<sup>225</sup> K. SULLIVAN, *Biden receives first dose of Covid-19 vaccine on live television*, <https://edition.cnn.com/2020/12/21/politics/bidens-coronavirus-vaccination/index.html> (last visited 31.12.2020)

<sup>226</sup> See <https://www.opengovpartnership.org/about/who-we-are/> (last visited 30.12.2020).

<sup>227</sup> See <https://www.opengovpartnership.org/stories/open-response-open-recovery/> (last visited 30.12.2020).

<sup>228</sup> R. DERRIG, *Lockdown Fatigue: Pandemic from the Perspective of Nudge Theory*, <https://verfassungsblog.de/lockdown-fatigue-pandemic-from-the-perspective-of-nudge-theory/> (last visited 5.01.2021).

<sup>229</sup> *Ibidem*.

<sup>230</sup> *Ibidem*.

<sup>231</sup> X. TROUSSARD, R. VAN BAVEL, *How Can Behavioural Insights Be Used to Improve EU Policy?*, cit., 8-12; H. STRABHEIM, S. BECK, *Introduction to the Handbook of Behavioural Change and Public Policy*, cit., 1-21.

<sup>232</sup> X. TROUSSARD, R. VAN BAVEL, *How Can Behavioural Insights Be Used to Improve EU Policy?*, cit.

Additionally, their adoption in the COVID-19 crisis is explained by the idea that nudges are always for the benefit of those who are nudged, but not always for the benefit of the nudgees<sup>233</sup>. Something that is evident in the current pandemic, where the response cannot but be collective, since the negative behaviour of single individuals can cause the death of others<sup>234</sup>. Indeed, M. Quigley specifies that there are two cases where intervention of government on «stupid decisions» of its citizens are justified: when it prevents harm to others, and when it can help to solve issues of collective action. I think that under a pandemic, both requirements are met.

But for the appropriateness of health- or COVID-19-related nudges to be granted, such interventions should also be proportional. This therefore brings us, again, to consider whether they respect the four-pronged proportionality test.

Within this framework, this type of nudge serves a legitimate aim, as it targets the protection of public health, safeguarded «as a fundamental right of the individual and a collective interest»<sup>235</sup>. As such, government intervention in this domain can be justified if those individual and collective interests are threatened<sup>236</sup>, as in the case of a global pandemic.

Nudges are also suitable with the desired aim, since the best way to protect ourselves from SARS-CoV-2 is precisely that of making small changes to our everyday behaviour. As measures that address decision-making to produce specific behavioural outcomes, nudges can help us in overcoming those habits that in a situation of emergency can be detrimental to our health conditions and those of the people around us<sup>237</sup>.

In the COVID-19 crisis, then, using behavioural insights has also been necessary. Especially during the first two waves, while the scientific community worldwide was focusing on the production of effective pharmaceutical interventions, as well as on the development of a vaccine, nudges brought a meaningful contribution to the management of the pandemic<sup>238</sup>. In the temporary absence of medications, in fact, COVID-19 could not but be faced with lockdown measures and behavioural initiatives. Besides, research shows that public acceptability of government intervention to change health-

<sup>233</sup> M. QUIGLEY, *Nudging for health: on public policy and designing choice architecture*, cit., 588-621.

<sup>234</sup> P. LUNN, C. BELTON, C. LAVIN, F. MCGOWAN, S. TIMMONS, D. ROBERTSON, *Using Behavioural Science to Help Fight the Coronavirus*, cit.

<sup>235</sup> *Costituzione della repubblica Italiana*, art. 32. The right to health is a fundamental and inviolable right, which comprehends the right to physical and mental integrity, as well as the right to receive adequate medical treatment and live and work in a healthy environment. As such, this right is recognized also at supranational level in the Charter of Fundamental Right of the European Union in art. 3 (right to integrity of the person) and art. 35 (right to health). At International level the right to health is recognized by international treaties, like the International Covenant on Economic, Social and Cultural Rights, but also in other declarations and statements, like the Universal Declaration of Human Rights. See also P. HUNT, *Interpreting the International Right to Health in a Human Rights-Based Approach to Health*, in *Health and Human Rights Journal*, 3, 12, 2016; A. YAMIN, R. CANTOR, *Between insurrectional discourse and operational guidance: Challenges and dilemmas in implementing human rights-based approaches to health*, in *Journal of Human Rights Practice*, 6, 3, 2014; R. FERRARA, *Il diritto alla salute: i principi costituzionali*, in R. FERRARA, C. SARTORETTI, *Trattato di Biodiritto. Salute e sanità*, Milano, 2010.

<sup>236</sup> B. ENGELEN, *Ethical Criteria for Health-Promoting Nudges: A Case-by-Case Analysis*, cit., 48-59.

<sup>237</sup> P. LUNN, C. BELTON, C. LAVIN, F. MCGOWAN, S. TIMMONS, D. ROBERTSON, *Using Behavioural Science to Help Fight the Coronavirus*, cit.

<sup>238</sup> J.J. VAN BAVEL, et al., *Using Social and Behavioural Science to Support COVID-19 Pandemic Response*, cit., 460-471.

related behaviour is higher when such action is less intrusive (meaning that in the health sector a ban is less likely to meet public approval than a less intrusive approach such as, for example, nudging)<sup>239</sup>. Finally, it can also be claimed that such insights are, in the current situation, *strictu sensu* proportional. Governmental intervention through behavioural insights in this case allows for the safeguarding of a primary good, i.e. health, even if that is not a goal pursued by all citizens<sup>240</sup>. Furthermore, it is also worth considering that health in most cases is itself a precondition for autonomy. When nudging people to wash their hands or wear a mask in order to avoid the spread of a potentially fatal virus, the benefit of safeguarding citizens' health outweighs the loss of liberty that may stem from the implementation of a behavioural intervention<sup>241</sup>.

Indeed, even the WHO issued a behavioural insights tool for the application, development and coordination of policy measures in response of the COVID-19 crisis: nudges are believed to offer countries «invaluable information» to support and guide their pandemic response activities<sup>242</sup>.

## 9. Concluding remarks

This work has aimed at describing the role of nudges and behavioural insights as tools of public policy with a focus on their contribution to the fight against the new COVID-19, caused by the spread of the coronavirus SARS-CoV-2. In this context, it is possible to draw three major conclusions.

The first is that nudges, with all their characteristics and implications, are indeed quite a controversial topic. A balanced way of describing them is to say that they «both preserve and compromise freedom»<sup>243</sup>. As a matter of fact, nudges can preserve freedom and be flexible, efficient and cost-effective on the one hand, while they might interfere with individual rights and undermine social and democratic values on the other. Yet this complexity should not be seen as an obstacle to the achievement of specific policy outcomes, rather as a sign of the inherent strength of behavioural measures in the face of complex social problems.

The second is that the key for a transparent application of behavioural insights to public policy is their integration in the structure of the legal system. Once integrated into the institutional framework, in fact, nudges can co-exist with principles of accountability, democracy and public deliberation. This work has shown that western democracies like, for example, Denmark and UK, are more suited to welcoming behavioural insights into their public policies, compared to authoritarian regimes like China.

Moreover, it has to be noted that integration can happen through the establishment of nudge units within or alongside of government, but also through the employment of principles of constitutional law as a means of scrutiny, among which the principle of proportionality represents an important

<sup>239</sup> S. DIEPEVEEN, T. LING, M. SUHRCKE, M. ROLAND, T.M MARTEAU, *Public acceptability of government intervention to change health-related behaviours: a systematic review and narrative synthesis*, cit.

<sup>240</sup> B. ENGELN, *Ethical Criteria for Health-Promoting Nudges: A Case-by-Case Analysis*, cit., 48-59.

<sup>241</sup> *Ibidem*.

<sup>242</sup> Who Regional Office For Europe, *New WHO/Europe tool for behavioural insights: critical to inform COVID-19 response*, 6 April 2020, <https://bit.ly/2NI0pyb> (last visited 20.12.2020).

<sup>243</sup> A. ALEMANNI, A. SPINA, *Nudging legally: On the checks and balances of behavioural regulation*, cit., 429-456.

bulwark for protection. In my opinion, the creation of a legal registry of nudges accompanied by expiration dates could also ensure suitability of these practices within the legal system in the long run. The third conclusion is that nudges are not meant to substitute traditional regulatory tools, but to complement them. In fact, behavioural insights represent a valuable resource for policy-makers, especially in situations like the current pandemic, where the policy goal to achieve (i.e. public health) widely depends on how people behave. Behavioural sciences can make a meaningful contribution to health-related interventions and, in the COVID-19 crisis, even the WHO encouraged international, national and regional authorities to apply behavioural measures in the fight against the virus, since they are believed to be «critical to the effectiveness and success of pandemic response measures»<sup>244</sup>. To conclude, it is important to underline that behavioural insights do not «solve all our problems». Yet very often global challenges, such as epidemics and outbreaks (but not only), do depend a lot on human behaviour. For this reason, I think that a better case should be made for social and behavioural sciences precisely to be institutionalized, because that would allow governments and policy-makers worldwide to better take into consideration, alongside purely scientific elements, those human factors that lie at the core not only of current problems, but of future challenges too<sup>245</sup>.

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<sup>244</sup> Who Regional Office For Europe, *New WHO/Europe tool for behavioural insights: critical to inform COVID-19 response*, cit.

<sup>245</sup> Un Innovation Network, *BI and COVID-19 - Experiences across the UN*, cit.