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Exploiting behavioural insights to foster global cooperation

Gianluca Grimalda, Simon Bartke, Steven Bosworth, Andreas Friedl, Katharina Lima de Miranda, Patrick Ring, and Dennis J. Snower

Abstract

The authors identify three challenges to global cooperation and propose three solutions. The first is the lack of integration of civil society into global governance. In the spirit of Ostrom's poly-centric governance, they propose stronger interaction between public international authorities, including the G20, and civil society. The second is the reliance of economic policy on a model of human behaviour based on self-interest and instrumental rationality. The authors propose on the contrary to ground policies on behavioural evidence, and to increase cooperation between academic institutions active in this field worldwide. The third is the recognition that the spread of divisive narratives, which emphasize demarcations across national or religious lines, hinders global cooperation. Alternative narratives should be produced within a transformative process involving responsible leaders, decision-makers, experts, and civil society.

(Submitted as [Global Solutions Paper](#))

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Keywords Behavioral economics; cooperation; civil society; narrative

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Challenge

Most problems faced by humankind, such as climate change, inequality, lack of social cohesion, forced migration, pandemics, are global in character and require international cooperation. However, international cooperation falls short of the standards that are necessary to address such problems. The late Elinor Ostrom argued for cooperation to be poly-centric and to involve different agents at different levels of action. Current international cooperation seems to be mainly confined to state-level interaction, of which the G20 is an important actor. Although civil society groups are often engaged in cooperative activities benefiting society, they could play a more central role in global cooperation. Even if some social movements and organisations have a global focus, their capacity to implement positive change for global cooperation has gone largely unexploited.

Another reason for the failure of international cooperation is that economic policy mostly relies on models of human behaviour that assume the rational pursuit of one's self-interested goals. These models ignore insights from behavioural psychology and economics that emphasize that individuals' behaviour is, on the contrary, characterized by bounded rationality, time inconsistencies, cognitive biases, adaptive or imitative rules of action, context-dependence and altruistic concerns. In particular, ignoring the ample fieldwork and experimental evidence strongly indicating that individuals are indeed capable of achieving high levels of cooperation even in the absence of enforcing authorities may prove a very costly mistake in the pursuit of global cooperation.

Global cooperation may also be hindered by the “ingroup bias” that characterizes human psychology. This consists of the tendency to favour cooperation with fellow co-nationals – or the group to which individuals feel most attached – over cooperation with foreigners. Foreigners, migrants or other ethnic groups, often become the scapegoat for social and economic problems that have structural causes. Political narratives juxtaposing “us” and “them”, purposely inducing sentiments of fear towards the “them”, appear to have an easy catch on many individuals around the world. Such narratives are divisive and thwart global cooperation.

Given the current failures of global cooperation, the challenge lying ahead of policy-makers and global leaders is to rethink policies along the following three lines of action. Firstly, global cooperation should become poly-centric and positively exploit non-state-level action, in particular that coming from grassroots movements and civil society. Secondly, global action should take into account the complexity of human psychology and exploit scientific evidence coming from behavioural psychology and economics. Thirdly, divisive narratives emphasizing “us” vs. “them” divisions should be replaced by inclusive narratives emphasizing similarities and the commonality of the goals facing humankind.

Proposals

Proposal 1: Engage, civil society, grassroots movements and local government in action towards global cooperation

As argued by the late Elinor Ostrom (1990), collective action for the management of public goods ought to be poly-centric. International political agreements achieved by global leaders need to be complemented by action at both the national level and at the level of local constituencies – cities, regions, states –, as well as by action by civil society – business leaders, environmental organisations, consumer associations, etc. – and individuals. In those cases where international action is inert, local and individual action may become pivotal (Fraser et al., 2006).

Cases of successful grassroots movements are extremely varied and include for instance ‘Local Energy Initiatives’ where German and Dutch town councils have engaged civil society in the creation of carbon-neutral energy networks (Hoppe et al., 2015), and so-called “ecopreneurs”, who apply traditional knowledge to increase crop productivity through eco-friendly techniques and distribute such applications under non-profit arrangements (Pastakia, 1998). In some cases grassroots movements have an international component, such as in the Transition Town movement, which seeks to create networks of citizens pursuing energy self-sufficiency (Seyfang and Haxeltine, 2012), and is spread across 43 countries. Another example is the involvement of Western scientists in the development of indicators of environmental degradation and knowledge transfer to pastoralists in African regions (Fraser et al., 2006). Not only are such initiatives important for the goal of environmental sustainability, but also because environmental degradation often has a distributive component, as ethnic minorities or low-income segments of the population are more exposed to the risks of environmental hazards (Bullard, 1993, Sachs and Peterson, 1995).

In other cases, local authorities have taken a leading role in planning, developing and conducting cooperation initiatives. For example, the city of Copenhagen plans to become carbon-neutral by 2025. The U.S. state of California has recently implemented a “Greenhouse Gas Reduction Fund Program”. The National Aeronautics and Space Administration (NASA) has launched the “Asteroid Grand Challenge” with the purpose of involving amateur “citizen scientists” in the mission to detect all asteroid threats to human populations.

Although initiatives involving “bottom-up” approaches are becoming more widespread, particularly in the environmental management domain, it is fair to say that we are still far from reaping their full potential. Although such initiatives, by definition, are initiated by civil society and by the cooperative attitudes of some of their members, we stress that the involvement of local public authorities has been in some cases crucial for their success, either through active leadership by local politicians or through the provision of expertise or public funding (Seyfang and Haxeltine, 2012). These action-based programmes are very close to the spirit of Ostrom’s poly-centric governance, as she recommends strong interaction between civil society and public authorities.

We propose that bottom-up initiatives that rely on transformative action by citizen groups and social grassroots movements, and that interact with public authorities both at the local level and

at higher levels, are encouraged and supported. We believe that the G20 may play a key role in the promotion of networks of civil society movements active in G20 countries targeting global public goods.

We propose that the G20 create an agency with the aim of (a) diffusing information on such activities among other interested agents, (b) providing expertise based on the state-of-the-art scientific knowledge on how to improve and optimally manage bottom-up initiatives; (c) provide financial funding for the initiatives that appear particularly worth of support.

We stress the relevance of knowledge transfer and expert advice as per point (b). In many cases the management of collective movements is sub-optimal (Feola and Nunes, 2014) and membership is typically undersized (Seyfang and Haxeltine, 2012). Moreover, most of the cases reviewed above rely on psychological dispositions to act for the common good, rather than self-interest, and these orientations may not be stable over time (see next section). The role of knowledge transfer, sharing of information and analysis of both successful and unsuccessful cases, from the G20 agency to the actors, is therefore important for the success of the initiative. We note that the agency should have a subsidiary role to facilitate the activities of grassroots movements and local public authorities, thus respecting the spirit of bottom-up initiatives.

Proposal 2: Exploit behavioural evidence to support global cooperation

The large body of behavioural evidence collected in recent years has not only brought about a radical shift in the theoretical modelling of human behaviour. More and more governmental agencies around the world now base some of their policies on insights from behavioural psychology and economics (see implementation section). Individuals' well-being can be improved, and socially desirable outcomes can be achieved, by designing contexts of individual choices that take into account such insights. Crucially, this can be achieved at no cost for governments, and without restricting individuals' freedom of choice. The pioneering book by Thaler and Sunstein (2008) showed how a vast range of policy interventions can be implemented simply by changing the "choice architecture" of decisions that individuals have to make. For instance, the "Save more tomorrow" proposal, launched by Benartzi and Thaler (2013), rests on the observation that most individuals prefer to postpone financial losses to the future. Substantial increases in saving rates towards retirement plans were obtained simply by postponing the start of such a program by one year. This arguably increased individuals' long-term well-being. Changing the "default option" and switching between "opting-in" and "opting-out" clauses, are also cost-free interventions that can improve both the social desirability of some outcomes and the fulfilment of individuals' preferences. Behavioural insights or policy "nudges" have demonstrated relevance across policy fields as disparate as consumer protection, energy pricing and taxation.

Below we propose a series of example policies that may be of interest to G20 leaders, elaborated by the “Behavioural Insights Unit” at the Kiel Institute for the World Economy. We propose these topics for discussion among G20 representatives. We also call for behavioural units from different countries to come together, share their expertise with other units, and start collaborative projects to study human behaviour in the international context. Such newly acquired behavioural evidence is also needed for Proposals 1 and 3. Given the international scale of global cooperation problems, it is important to develop solutions that are viable in many different countries simultaneously.

A) Name and praise the uncorrupted

Rather than shaming the corrupt, praising the uncorrupted may be the best way to tackle corruption.

Corruption represents one of the main hindrances to growth in many developing countries. It also fosters beliefs that the society is unfair because it allows for positional rents linked with neither effort nor merit. A natural way to approach this problem would be through the traditional strategy of “naming and shaming”. However, this strategy would arguably undermine inter-personal trust and may thus be counterproductive. A more constructive approach is to rely on individuals’ natural propensity to reward pro-social behaviour. The key idea is to institute public agencies that give public recognition to companies or organisations refraining from corruption. Such public agencies would include members of civil society, social entrepreneurs and experts with proven independence from both politics and the business sector. Consumers and the general public would be encouraged to reward companies receiving such a public recognition. Extensive empirical evidence shows that a sizable proportion of the population can be indeed relied upon to reward “virtuous” actors (Engelmann and Fischbacher, 2009), for instance buying their products (Stolle et al., 2005). This reward system would simultaneously encourage competition among companies and organisations to actively engage in anti-corruption practices. Each company would need to produce factual evidence that they abstained from corruption, which would be checked by the public agency. This may be done through either external auditing or internal monitoring mechanisms.

B) Reducing antibiotic over-prescription

Requiring doctors to sign a statement affirming their belief that antibiotic medication will improve a patient’s health

The past decades have witnessed the increasing prevalence of bacterial strains which are resistant to one or more of the most commonly available antibiotic medications. This poses a huge public health challenge as thousands worldwide die each year from drug-resistant strains of bacteria such as tuberculosis or staphylococcus. A contributor to antibiotic resistance is the over-prescription of antibiotic drugs for viral infections they are not suited to treat. Therefore interventions to reduce prescription of antibiotics in these instances have the possibility to buy humanity more time while new therapies are being developed. Forcing doctors to sign a statement before prescription of antibiotic medications affirming that they either 1) believe the

patient to have a bacterial infection for which the medication will be effective or 2) do not have sufficient basis on which to diagnose a bacterial infection, but are prescribing the medication anyway. The statement would prevent instances of antibiotic over-prescription that may be driven by motivated reasoning to conform with patient requests. Doctors would still have full flexibility to exercise their discretion, but would be forced to confront the potential public health externalities they impose.

C) Mobile telephone messaging to fight antimicrobial resistance

Fight antimicrobial resistance by increasing drug compliance with mobile telephone messaging

The G20 identified increasing antimicrobial resistance as an important health care challenge. A major cause of increasing antimicrobial resistance is that some patients stop their treatment too early and consequently not all bacteria are killed. Therefore, improving medication adherence could be one way to fight this challenge. Recently, it has been shown that prescription compliance can be increased by mobile telephone messaging, i.e., daily reminders about medication intake (Thakkar et al., 2016). In a meta-analysis, it has been shown that this nudge can improve adherence rates from 50% to 67.8% in patients with a chronic disease.

D) Digital Nudges

Onscreen nudges can improve consumer decisions in a digital world and improve digital public services.

Many countries are in the process of shifting some public service provision into the digital world. In order to provide efficient public services online that are connected with functional processes, authorities need to have an understanding of how people respond to decision making on a screen. Likewise, consumers make consumption decisions online more and more often, and are increasingly influenced by online marketing channels. Behavioural evidence has accumulated that people make choices and access information differently depending on the screen layout (Lingaard et al., 2011; Reinecke et al., 2013; Benartzi and Lehrer, 2015;). Subtle differences in the colorfulness, font size, and the arrangement of items affect individuals' decisions and their trust in the provider of the information. This has implications for any nudge that seeks to improve tax compliance, energy consumption, and voter participation. We recommend the use of behavioral insights to protect consumers and for civil administration to update their services to new technologies. For instance, evidence has been gathered that decisions are made more carefully when the font is harder to read and that offices using text reminders help citizens to remind appointments and undertake required actions. Also, information submission in a design that is tailored to the recipient is very likely to increase compliance of citizens.

E) Enhancing consumers' privacy

Help consumers protect personal data according to their preferences by in-time interventions

The systematic collection and analysis of “big data” offers benefits to end consumers and society. At the same time, the increasing provision of personal information has raised concerns over questionable ethical practices and potential data misuse. Governments are tasked with protecting the population in this regard. While most approaches examine how to protect consumers after information has been collected, policymakers could be more active in protecting consumers before and during sharing personal information. A recent study showed that an intervention enhancing the salience about privacy issues at the time of the decision to share personal data, may allow consumers to make more balanced decisions with regard to their personal data. Instructing organizations to repeatedly inform consumers that they are the legal possessors of their personal information, and that they sell this property when disclosing it, may help to enhance privacy salience and protecting behaviors of end consumers (Kehr, 2016).

F) Asking for a climate change cost contingency plan

Asking countries to provide a cost contingency plan for a climate change scenario in case of lack of international agreement can increase the willingness to cooperate on such measures.

One argument of climate change sceptics is that it is “too expensive” or damaging for the economy to act against climate change. This misconception is based on the belief that acting against climate change is expensive while failing to act would have no costs. Counteracting the negative effects of climate change is indeed expensive for many countries. Nonetheless, non-action is surely even more expensive, once all the consequences – e.g. the increased costs of foreign aid, violent conflicts and mass migration, etc. – are factored into the equation. Governments should be required to elaborate cost contingency plans for the scenario of lack of international agreement on climate change. Making these plans publicly available may shift public opinion in favour of international cooperation.

Proposal 3. Develop and disseminate inclusive narratives that transcend national or religious demarcations and stress the global nature of human interactions

One of the most robust finding in social psychology is that individuals tend to frame their social interactions in terms of belonging to an “ingroup” and an “outgroup”. The former represents the group with which an individual identifies, experiences attachment and whose collective goals are incorporated into the individual's own goals. The latter represents the groups from which, on the contrary, the individual experiences detachment (Brewer, 1999). Even purely artificial demarcations created in laboratory conditions suffice to create significant ‘ingroup favouritism’, that is, the tendency to treat one's ingroup more favourably than the outgroup (Tajfel and Turner, 1986).

Differences based on language, ethnicity, nationality and religious denominations provide very salient demarcations that individuals often use in real life to define their ingroup and their outgroup. Construing social interactions under these lenses can lead to sub-optimal cooperation in international or inter-ethnic contexts, as clearly demonstrated by experimental evidence (Castro, 2008; Balliet et al., 2014). This is of course worrying for the prospects of global cooperation.

Ingroup favouritism is nonetheless not a foregone conclusion. First of all, ingroup favouritism does not necessarily go hand-in-hand with its opposite – outgroup discrimination. That is, individuals can experience attachment for their ingroup without necessarily willing to inflict damage on their outgroup (Brewer, 1999; Putnam, 2007). This implies that an individual can derive a positive sense of identity for the ingroup without necessarily experiencing a negative one for the outgroup. Secondly, ingroup and outgroups are not immutable notions, but are on the contrary malleable and changeable over time. Putnam (2007) observes how relevant ingroups have changed in post-war US, including and then excluding race-based or religion-based demarcations. Finally, globalisation contributes to the spread of values, cultural artefacts and imagery which progressively reduce the social distance between nationals and foreigners (Buchan et al., 2009), while promoting cosmopolitan values (McFarland et al., 2012). The scale of the problems that are global in character also generates the perception of a “shared fate” for humanity as a whole. In the words of Anthony Giddens (1991: 27), “*With globalization humankind becomes a we where there are no others*”. This sets the foundation for an inclusive sense of social identity, which transcends traditional ingroup-outgroup demarcations and develops a sentiment of global belonging.

In spite of these possibilities, some political movements are all too keen to exploit public discontent to propose narratives that make national and religious demarcations prominent. In our view, this has led to social fragmentation and has motivated people to narrow their circles of social responsibility. Needless to say, this is a step in the wrong direction to achieve global cooperation.

We propose that public authorities, business leaders, civil society and social entrepreneurs work together with communication experts and representatives of the media sector to shape the public discourse in a direction that eradicates divisive ingroup/outgroup narratives and replace them with inclusive narratives (see also Wallis, 2017). This requires the creation of groups of farsighted individuals whose responsibility is to create alternative narratives resting on trustworthy foundations and motivating concerted global action to overcome common problems. Such narratives should hinge upon both existing behavioural knowledge and on newly-created knowledge. In particular, we envisage the following process for the creation and dissemination of inclusive narratives: (1) Identification of major international challenges; (2) Formulation of potential responses to these challenges by the experts group; (3) Development of narratives promoting these responses; (4) Interaction with further decision-makers, experts, leaders, and civil society groups, not previously involved, to test whether the proposed narratives will receive public endorsement; (5) Test such narratives in purposely devised controlled experiments involving the general public; (6) Revision, if necessary, of the proposed narratives; (7) Dissemination of the narratives to broad sectors of the public and to the social media. In this

way, the narratives so produced become part of a public dialogue that enables them to evolve in response to ongoing public concerns.

We propose that the T20 hosts a high-level meeting where leading thinkers, decision-makers, thought leaders and activists, taken from different countries, cultures, and religions, come together, discuss, and produce inclusive narratives that can foster global cooperation. Since the goal of this initiative is to address global problems, it is particularly important to develop narratives that can be applied to different countries. We therefore believe that the T20 could provide the ideal context to harbour this initiative.

References

- Balliet, D., Wu, J., & De Dreu, C. K. (2014). Ingroup favoritism in cooperation: A meta-analysis. *Psychological Bulletin*, 140(6): 1556–1581. <https://www.ncbi.nlm.nih.gov/pubmed/25222635>
- Benartzi, S., & Thaler, R. H. (2013). Behavioral economics and the retirement savings crisis. *Science*, 339(6124): 1152–1153. <http://science.sciencemag.org/content/339/6124/1152>
- Benartzi, S., & Lehrer, J. (2015). *The smarter screen: Surprising ways to influence and improve online behavior*. Portfolio.
- Brewer, M. 1999. The Psychology of prejudice: Ingroup love or outgroup hate. *Journal of Social Issues* 55: 429–44. <http://onlinelibrary.wiley.com/doi/10.1111/0022-4537.00126/abstract>
- Buchan N, Grimalda G, Wilson R, Brewer M, Fatas E, Foddy M, (2009). Globalization and human cooperation. *Proceedings of the National Academy of Sciences of the USA*, 106 (11): 4138–4142. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2657440/>
- Bullard, R. D. (1993). *Confronting environmental racism: Voices from the grassroots*. South End Press.
- Castro, M. F. (2008). Where are you from? Cultural differences in public good experiments. *The Journal of Socio-Economics*, 37(6): 2319–2329. <https://doi.org/10.1016/j.socec.2008.04.002>
- Engelmann, D., & Fischbacher, U. (2009). Indirect reciprocity and strategic reputation building in an experimental helping game. *Games and Economic Behavior*, 67(2): 399–407. <https://doi.org/10.1016/j.geb.2008.12.006>
- Feola, G., & Nunes, R. (2014). Success and failure of grassroots innovations for addressing climate change: The case of the transition movement. *Global Environmental Change*, 24: 232–250. <https://doi.org/10.1016/j.gloenvcha.2013.11.011>
- Fraser, E. D., Dougill, A. J., Mabee, W. E., Reed, M., & McAlpine, P. (2006). Bottom up and top down: Analysis of participatory processes for sustainability indicator identification as a pathway to community empowerment and sustainable environmental management. *Journal of environmental management*, 78(2): 114–127. <https://doi.org/10.1016/j.jenvman.2005.04.009>

- Giddens, Anthony. (1991) *Modernity and self-identity: Self and society in the late modern age*. Cambridge: Polity Press.
- Hoppe, T., Graf, A., Warbroek, B., Lammers, I., & Lepping, I. (2015). Local governments supporting local energy initiatives: Lessons from the best practices of Saerbeck (Germany) and Lochem (The Netherlands). *Sustainability*, 7(2): 1900–1931. <http://www.mdpi.com/2071-1050/7/2/1900>
- Kehr, F. (2016). *Feeling and thinking: On the role of intuitive processes in shaping decisions about privacy*. Dissertation of the University of St. Gallen, School of Management. <http://www1.unisg.ch/www/edis.nsf/SysLkpByIdentifier/4470?OpenDocument&lang=de>
- Lindgaard, G., Dudek, C., Sen, D., Sumegi, L., & Noonan, P. (2011). An exploration of relations between visual appeal, trustworthiness and perceived usability of homepages. *ACM Transactions on Computer-Human Interaction (TOCHI)*, 18(1). https://www.researchgate.net/publication/220286165_An_Exploration_of_Relations_Between_Visual_Appeal_Trustworthiness_and_Perceived_Usability_of_Homepages
- McFarland, S., Webb, M., & Brown, D. (2012). All humanity is my ingroup: A measure and studies of identification with all humanity. *Journal of personality and social psychology*, 103(5): 830–853. <https://www.ncbi.nlm.nih.gov/pubmed/22708625>
- Ostrom, E. (1990). *Governing the commons: The evolution of institutions for collective action*. Cambridge University Press.
- Pastakia, A. (1998). Grassroots ecopreneurs: change agents for a sustainable society. *Journal of Organizational Change Management*, 11(2): 157–173. https://www.researchgate.net/publication/235267667_Grassroots_ecopreneurs_Change_agents_for_a_sustainable_society
- Putnam R (2007). E pluribus unum: Diversity and community in the twenty-first century, *Scandinavian Political Studies*, 30(2): 137–174. <http://onlinelibrary.wiley.com/doi/10.1111/j.1467-9477.2007.00176.x/full>
- Reinecke, K., Yeh, T., Miratrix, L., Mardiko, R., Zhao, Y., Liu, J., & Gajos, K. Z. (2013). Predicting users' first impressions of website aesthetics with a quantification of perceived visual complexity and colorfulness. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (pp. 2049–2058). ACM. <https://dl.acm.org/citation.cfm?id=2481281>
- Sachs, A., & Peterson, J. A. (1995). Eco-justice: linking human rights and the environment. Worldwatch Paper #127. <http://www.worldwatch.org/node/863>
- Seyfang, G., & Haxeltine, A. (2012). Growing grassroots innovations: exploring the role of community-based initiatives in governing sustainable energy transitions. *Environment and Planning C: Government and Policy* 2012, 30: 381–400. <http://journals.sagepub.com/doi/abs/10.1068/c10222>
- Stolle, D., Hooghe, M., & Micheletti, M. (2005). Politics in the supermarket: Political consumerism as a form of political participation. *International political science review*, 26(3): 245–269. <http://www.jstor.org/stable/30039032>
- Tajfel, H. Turner, JC (1986). The social identity theory of intergroup behavior. *Psychology of intergroup relations*, 7–24. <http://psycnet.apa.org/record/2004-13697-016>

- Thakkar, J., Kurup, R., Laba, T. L., Santo, K., Thiagalingam, A., Rodgers, A., & Chow, C. K. (2016). Mobile telephone text messaging for medication adherence in chronic disease: a meta-analysis. *JAMA internal medicine*, 176(3): 340–349. <https://www.ncbi.nlm.nih.gov/pubmed/26831740>
- Thaler, R. H., & Sunstein, C. R. (2008). *Nudge: Improving decisions about health, wealth, and happiness*. Yale University Press.
- Wallis, S. (2017). Creating a future where all are valuable – A new narrative for the richer countries in the world. G20 Insights. Overarching Visions. http://www.g20-insights.org/policy_briefs/creating-future-valuable-new-narrative-richer-countries-world/

Annex

Implementation Overview

An increasing number of countries draw on behavioural economics insights to inform some of their policies. The USA and the UK are at the forefront. The UK government has formed a Behavioural Insights Team that provides consultancy for UK policymakers. The USA have implemented legislation based on behavioural insights. The European Commission draws on behavioural research for policy design. Other countries, such as Australia, France, Denmark, Sweden and Norway, started initiatives to promote behavioural thinking among policymakers. International collaborative initiatives seem nonetheless to be lacking.

Existing Agreements

Explicit support for local authorities to engage in initiatives to prevent climate change dates back to the United Nations Conference on Environment & Development (Rio de Janeiro, Brazil, 3 - 14 June 1992: AGENDA 21. In particular Chapter 28 on “Local authorities' initiatives in support of Agenda 21”.

Existing Policies and Monitoring

The CARD Act, which was passed into US law in 2009, is an example of a policy directly based on the application of behavioural insights. It regulates credit card suppliers in the USA. Another example is the EU Consumer Rights Directive, modifying default setting in the online sale of pre-ticked boxes.

For an international comprehensive review of policies informed by behavioural insights, see Lunn, Pete (2014). Regulatory policy and behavioural economics. *OECD Publishing*.

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