

Rule-free regulation: Exploring regulation ‘without rules’ and apart from ‘deontic categories’

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Abstract

Regulation can occur “with (specific) rules/norms” or “without (specific) rules/norms”. Numerous studies have been devoted to the first option. To the point where “regulation” and “rules” have often been seen to coincide in some academic research, and also in everyday ways of thinking. We deal with the second option in this article: regulation without rules/norms. Namely, a type of regulation by which it is intended to influence others’ behaviour without recourse to rules/norms, and without directly altering the “normative environment”.

KEYWORDS

deontic artifacts, regulation, ruling without rules, normativity, nudge

1 | INTRODUCTION: RULE-FREE REGULATION

Within the broader, diversified endeavour of influencing peoples’ behaviour, we use the term “regulation” to refer only to attempts to influence behaviours made intentionally by an authority (e.g., a public authority); attempts which target standard types of behaviour¹ (i.e., they do not target individual behaviours on an occasional basis), and which are aimed at a class or category of subjects (e.g., car drivers).²

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Regulation in this sense can occur (1) with (specific) rules/norms or (2) without (specific) rules/norms.

Numerous studies have been devoted to the first option: regulation *with* rules; to the point that “regulation” and “rules” have often been seen to coincide in academic research, and also in everyday ways of thinking. Hutter (2006, p. 203) defines this approach as conceiving *regulation as rules*, and observes that this category “reflects the work of economists, lawyers, and policy scientists who were particularly active in developing a definition of regulation which refers to state efforts to regulate economic activities. Lawyers have, not surprisingly, concentrated on regulation as state intervention through law, backed by criminal sanctions”.³ In other words it seems, *prima facie*, impossible to talk about regulation without simultaneously talking about the rules by which it is intended to alter others' behaviour. According to the standard dictionary definition, regulation is “a law, rule, or other order prescribed by authority, especially to regulate conduct” (Hart 2009, p. 437). From this perspective, “a regulation ... is a set of statements (or norms) which regulate the behaviour of agents by expressing what is obligatory, permitted, forbidden and under which conditions” (Cholvy & Roussel, 2008, p. 51).

In this article we deal with the second option: regulation *without* rules/norms. This is a type of regulation intended to influence people's behaviour without recourse to rules/norms, and without directly altering the “normative environment”. We will call this second form of regulation (without rules/norms) “rule-free regulation”. To avoid any misconceptions, we stress that by “rule-free regulation”, “regulation without rules”, we mean “ruling without introducing new specific rules focused on the behaviour we want to influence”, not “ruling without *any* rule at all in place while trying to influence such behaviour”.

This second type of option has begun to seem plausible only recently, following the success of the similar—but not identical—concept of *nudge* (Thaler & Sunstein, 2008);⁴ but also of the idea of *artifacts influencing behaviours* (Akrich, 1992; Latour, 1992),⁵ and of the idea of *architecture as a modality of regulation* (Lessig, 1998, 1999) and its developments (Gavaghan, 2017; Katyal, 2002; Schindler, 2014; Shah & Kesan, 2007).⁶

We propose the idea of rule-free regulation as a more general framework (Lorini & Moroni, 2020). In this case, desired or undesired behaviours are not “codified” in prescriptive rules, but are favoured or disfavoured options within an appropriately framed *anomic* and *adeontic* environment.

As an interesting side note to this discussion, observe that although both types of regulation (“with rules” and “without rules”) are deployed when regulating human behaviour, in general only the second is deployed when animal behaviour is being regulated by humans.⁷ Interesting examples of the latter case are the silhouettes of birds of prey on transparent surfaces—temporary or permanent—to prevent birds from hitting glass, or scarecrows used to keep birds away from crop fields.⁸ Here we will concentrate in particular on the first issue (i.e., regulating human behaviour), although the latter issue also warrants analysis.

This article is organised as follows. In Section 2 we attempt to build a conceptual framework which may be useful in theoretical terms (to gain better understanding of the special phenomenon of rule-free regulation), and also in practical ones (to be able to implement it effectively in practice). In Section 3 we critically discuss the issue of reasons for action, the effects and limits of rule-free regulation, and the similarities and dissimilarities with respect to the concept of “nudge”. In Section 4 we conclude by emphasising that the scope of regulation is more extensive than the scope of the *deontic* and the *normative*.

2 | THREE DIMENSIONS OF RULE-FREE REGULATION: TELEOLOGICAL, TECHNOLOGICAL, ANTHROPOLOGICAL

We will examine the concept of rule-free regulation considering the following three dimensions:

1. The regulator's *aims* (subsection 2.1)
2. *Means* of regulation (subsection 2.2)
3. Human *features* that can be exploited (subsection 2.3).

In the first case the focus is on the *teleological* dimension of rule-free regulation; in the second on the *technological* dimension; and in the third on the *anthropological* dimension.

2.1 | Teleological dimension: the regulator's aims

The regulator uses rule-free regulation basically in order to (1) *discourage* specific conduct or (2) *encourage* specific conduct (compare with Tromp et al., 2011).

In the first case, the purpose may be to discourage, hinder, or prevent specific behaviours or conduct. A first example is a speed bump to slow traffic. The speed bump does not signal a precise speed limit. It merely hampers the fast transit of, for instance, a car (Kärholm, 2007, p. 445). A second example is the *StandardToilet*, approved by the *British Toilet Association*, which was designed to be uncomfortable in order to discourage use for a protracted period: for instance, in shopping centres or train stations. It has a slanting downwards angle of 13° which makes it uncomfortable to sit on, thus preventing use for more than a few minutes.⁹ A third—relevant albeit ethically criticisable—example is provided by the anti-homeless devices typical of so-called *hostile architecture* (Johnsen et al., 2018; Petty, 2016; Rosenberg, 2014, 2017, 2020a, 2020b; Smith & Walters, 2018). For instance, benches with metal dividers, or with an uneven surface, which are unusable for any purpose other than sitting, and metal studs implanted in the ground in order to discourage people from lingering in certain places.¹⁰

Secondly, the purpose could be to promote a specific form of behaviour. This is exemplified by the moving walkways (i.e., *tapis roulants*) installed in certain airport corridors. They encourage people to exploit the opportunity to move more quickly (also preventing people from blocking corridors—especially in groups) (Lockton et al., 2010). Other examples are the special walkways used in some railway stations which assist travellers to pull their roller-suitcases, thus moving such travellers more quickly from A to B. A third example consists of certain forms of “inclusive architecture” (in a certain sense, the reverse of hostile architecture): that is, architectural projects which contribute to a convivial experience of urban spaces—e.g., public squares—by creating the conditions for accommodating and fostering various kinds of activities and users (as in *General Gordon Square*, London: Bates, 2018).

2.2 | Technological dimension: means of rule-free regulation

A further classification is possible on considering the means (e.g., the various devices or acts) by which rule-free regulation may operate. We may distinguish between (1) rule-free

regulation that operates by structuring *things* (i.e., by transforming the physical world) and (2) rule-free regulation that operates through certain kinds of *acts* (with the aim of influencing others). In both cases, the point is not to impose specific behaviours by directly regulating them, but to encourage or discourage behaviours by re-arranging a certain (non-normative, non-deontic) environment. There follow some examples of the two cases. (This subsection, like the following one, is not intended to provide an exhaustive taxonomy, but rather to highlight the variety of possible examples as well as significant differences).

We begin with regulative interventions by making/modifying things.

A first case is the employment of what we call “regulative adeontic artifacts” (or “persuasive artifacts”).¹¹ An example is again provided by speed bumps. Another example is the positioning of suitably placed objects—for instance, a number of pillars—at the exits from places usually left by large flows of people: for instance, sports stadiums. It has been shown that this apparently counterintuitive strategy accelerates the flow of people away from collective places of this kind (Jiang et al., 2014; Jia et al., 2017; Zhao et al., 2017). Yet another example is represented by black silhouettes in the shape of a person used along particularly hazardous roads to mark the place where someone has lost his/her life in a road accident: the purpose being to prompt motorists to drive carefully (Tromp et al., 2011).

A second case is the use of images.¹² An example here is an experiment in which the presence of an image of a pair of eyes next to a milk dispenser with a system of voluntary payments—to be placed in an “honesty box”—induced people to pay three times as much as they did without this image (Bateson et al., 2006; see also Dear et al., 2019).¹³ Another example is a 3D illusion painted on the street and representing a young girl chasing a ball, to prompt drivers to slow down. This *trompe l'oeil* was installed for the first time in Canada in 2010.¹⁴

A third case is the use of sounds. For example, playing classical music in specific places in order to reduce gatherings of young people (Pease & Farrell, 2014, p. 82). Assuming, of course, that this does not tend to be the favourite music of certain age groups.¹⁵

A fourth case is the use of light for particular purposes. For instance, blue light in toilets to discourage drug addicts from injecting due to the fact that veins are difficult to find in such lighting conditions (Lockton et al., 2010).

We now turn to interventions which do not so much require things to be done (structuring, altering ...) as require specific forms of conduct.

A first example here is acting in such a way as to give other agents a good example. One thinks, for instance, of the positive example that parliamentarians give when they attend chamber sessions (and of the profoundly poor example given by those who are frequently absent). And one thinks of the good example set by a local municipal administration when public areas are carefully tended on an ongoing basis. Or, indeed, the positive influence of parents' and teachers' good conduct practices on their children and students. One naturally thinks also of the classic Buddhist and Christian monastic “masters” who devoted their lives to positively influencing others' behaviour by the power of their own life example (Petrażycki, 1909-10, p. 614; Agamben, 2013, pp. 29, 95).

A second example is “regulation by mere presence”, as in the case of patrolling by the police (Tuffin et al., 2006). The mere presence of the police in, for instance, certain neighbourhoods, may influence behaviour.¹⁶

2.3 | Anthropological dimension: human features exploited by rule-free regulation

A final possible classification involves human features that rule-free regulation seeks to leverage, such as (1) peoples' *physical-physiological* make-up or (2) their *psychological* (cognitive and/or emotional) attitudes.¹⁷ In the words of Jakob von Uexküll (1926), it is a form of regulation that presupposes a specifically “human environment/world” (in German: *Umwelt*), where there are only “human things”.¹⁸

We now consider the two options identified in greater detail.

In a number of cases, the physical and physiological aspect of the human being is exploited: for instance, body shape and physical capacities. Examples are the human being's inability to lie down on a bench whose surface makes this physically impossible (e.g., due to vertical dividers between individual seats) or difficult, as in the case of the so-called *Camden benches* (which have angular surfaces). Or the impossibility of remaining seated for a long time on a toilet that is slanted downwards. In this case, there is a kind of real-world contradiction between the “affordance to sit” (Gibson, 1979) furnished for instance by a toilet bowl due to its overall shape and height, and the feasibility of remaining seated on it because of the special physical configuration of its details.¹⁹

In other cases, the human being's psychological (cognitive and/or emotional) dimension is exploited.

A first instance involves the exploitation of certain worries and fears. For example, the fear of damaging one's car, or injuring oneself, if one drives over a speed bump too quickly.

A second instance is exploitation of the dimension of “play” intrinsic to human nature (Huizinga, 1938). Examples are garbage cans designed as baskets used in games to score; or Leolandia's *Gnamgnams* making strange and amusing noises when receiving plastic bottles (Lorini & Moroni, 2020); or particular “spiral wishing wells” which transform giving money for charity into a fun act for donors (Lockton et al., 2010).

A third instance involves exploiting cognitive biases.²⁰ Devices like black silhouettes along roads are for instance based on a typical human bias which Amos Tversky and Daniel Kahneman (1974, p. 1127) have called “bias due to the retrievability of instances”. In relation to a phenomenon like these macabre silhouettes, they write: “[i]t is a common experience that the subjective probability of traffic accidents rises temporarily when one sees a car overturned by the side of the road.” And this erroneous judgment of probability impels drivers to cut their speed.²¹

3 | DISCUSSION: REASONS FOR ACTION, EFFECTS AND LIMITS, DIFFERENCES FROM NUDGING

We have distinguished and analysed the teleological, the technological and the anthropological dimensions of rule-free regulation. They can be combined into a general schema: see Figure 1.

We will now critically analyse three important aspects: (1) the relationship between rule-free regulation and the reasons for action (subsection 3.1); (2) effects and intrinsic limitations of rule-free regulation (subsection 3.2); (3) similarities with and differences from the idea of nudging (subsection 3.3).

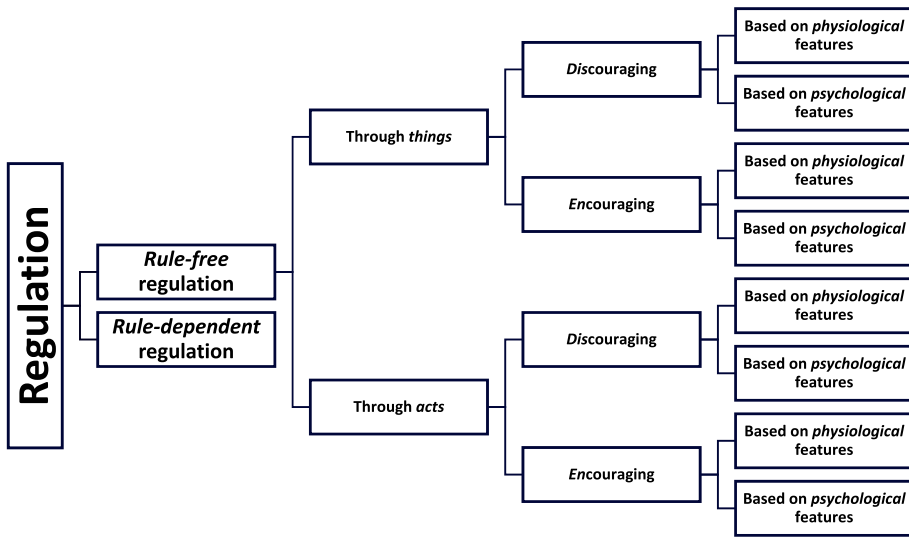


FIGURE 1 Rule-free regulation: a general schema

3.1 | Rule-free regulation and reasons for action

In his discussion of reasons for action, Searle (2001) distinguishes two cases. On one hand, *desire-dependent reasons for action*: I want an ice cream so I go and buy one. On the other hand, *desire-independent reasons for action*: I don't want to give a lecture at 8 o'clock tomorrow morning, but I have to because it is my duty as an employed university professor.

Normative regulation of the orthodox kind clearly exploits desire-independent reasons for action above all, which are based primarily on commitments and obligations.²² Rule-free regulation, on the other hand, is a kind of regulation that does not deploy desire-independent reasons for action. Rule-free regulation occasionally exploits desire-dependent reasons for action (as in the case of speed bumps, or classical music in a public location), but in other cases it regulates behaviour without exploiting any reason for action at all (as in the case of the pillars at the exits of football stadiums to ensure that people will exit more quickly, or the blue light in bathrooms to discourage the injection of drugs).

To conclude, rule-free regulation differs from regulation by rules in that it does not necessarily use desire-independent reasons for action (in Searle's sense): indeed, it occasionally does not even use desire-dependent reasons for action at all. In fact, it is a form of regulation that does not always require “reasons for action” in its deployment.

3.2 | Effects and limits of rule-free regulation

Our first question here is: What *can* one actually do with rule-free regulation?

As we have seen, rule-free regulation can encourage or discourage behaviours without the need to rely on formal rules and sanctions. Note that rule-free regulation also has the ability to generate (anomic) behavioural regularities, habits and the like.

Obviously, not all rule-free regulation that is *effective* is also necessarily *ethical*. We will not deal with this aspect here (as our discussion is primarily conceptual and analytical); but an

example immediately comes to mind: hostile architecture. This feels intuitively unacceptable to us in view of unethical assumptions, although no doubt in many cases it is effective from a teleological point of view.

A second question that arises is: What is rule-free regulation *not* able to do? What are the intrinsic limitations of its applicability and effectiveness (i.e., its ability to produce effects)?

Rule-free regulation is subject to at least two intrinsic limitations: (1) the *scale* of application, (2) the impossibility of performing a *constitutive* function.

Firstly, rule-free regulation seems to have a role to play primarily at the micro- and meso-levels. Most of the above-cited examples do not apply at the macro-level. A significant amount of rule-free regulation that is enacted by altering the physical environment or by adopting certain behaviours, may influence recipient subjects only if they are present. The use, for instance, of “regulative adeontic artifacts” must, by their very nature, be primarily at the micro-level. A regulative adeontic artifact necessarily operates in a spatial zone in proximity to where the regulated subject is. In this case its regulatory effect applies exclusively in its own “sym-physical field” (in German *symphisches Umfeld*: Bühler, 1934); that is, in the spatial context with which the artifact is materially associated. In other words, it has a limited spatial scope of operation/performance. The co-localization of artifact and regulated subject is, indeed, absolutely necessary.²³ Also because if the regulative adeontic artifact is to be effective, it is essential that it be directly perceived by the subject whose behaviour it is intended to regulate.

Secondly, rule-free regulation *cannot* in any way replace—or be an alternative to—normative regulation of the orthodox kind when it comes to introducing “constitutive rules” (see the seminal works by Carcaterra 1974; Conte, 1988; Rawls, 1955, Searle, 1969; Znamierowski, 1924). In short, rule-free regulation cannot have a “constitutive function”. In other words, with rule-free regulation one obviously *cannot* either create new “types” of institutional phenomena or directly produce new individual institutional structures (as occurs, according to Searle, 1989, 1995, 2010, 2020 with “declarations”).

3.3 | Only a partial overlapping with the idea of nudge

Before completing this section, we will briefly examine the relationship between rule-free regulation and the concept of the “nudge”. The concepts are clearly related (for instance, both of them recognize that rules are not the only means to influence behaviour and assume that the way in which the context of choice is structured influences decisions and actions²⁴), *without actually coinciding*.²⁵

First, Thaler and Sunstein’s (2008) original idea of nudge as a *gentle push* excludes certain phenomena which are instead crucial for what we term here “rule-free regulation”: for example (Section 2), “ruling by providing an example”, or “ruling by mere presence”, and some of the cases that we have discussed under the label “ruling through adeontic artifacts” (devices like speed bumps, for instance, cannot properly be considered nudges: Calo, 2014).

Second, and at the same time, the idea of nudge is too broad in certain other respects. On the one hand, defining “nudging” (as a manipulation of choices) independently from “regulation” implies accepting as nudging *any* attempt to influence someone else’s behaviour: even by merely granting information. In this sense, part of the contemporary literature on nudges seems to have no clear and identifiable domain of application. As Hansen (2016, p. 155) observes: “in spite of the widespread interest, confusion reigns as to what exactly is to be regarded as a nudge”.²⁶ On the other hand, Thaler & Sunstein (2008) even spoke of “unintentional nudges”. In

this regard, nudging becomes completely different from our idea of “rule-free regulation”, which is always, and by definition, intentional.²⁷

In more general terms, a fundamental difference with respect to the approach of Thaler and Sunstein—and many of their followers—is the following. On the (implicit) assumption that *regulation* and *rules* coincide, they consider what they call “nudge” to be an alternative to regulation. In our approach, instead, the focus is on a broader notion of regulation which comprises both “regulation with rules” and “regulation without rules” (i.e., rule-free-regulation).

4 | CONCLUSION: REGULATION BEYOND NORMS AND EVEN BEYOND DEONTIC CATEGORIES

In conclusion, we argue (as shown by the existence of rule-free regulation itself) that regulation has a wider scope and reach than *normativity* and *deontology*. Rule-free regulation may, in effect, be defined negatively (*ex negativo*). It is:

1. neither a kind of *nomic*—normative—regulation (i.e., it is not a regulation by/with norms/rules);
2. nor a kind of *deontic* regulation (i.e., it is not a regulation by/with deontic categories).

In the first place, rule-free regulation is a regulation “without norms/rules” (i.e., an *anomic*/non-normative regulation) in that it is deployed without reference to norms/rules (whether these are regulatory or constitutive, typologically speaking, or verbal, visual or other, phenomenologically speaking).²⁸ Furthermore, it does not presuppose that the regulated subject is an intrinsically “nomic” creature, a rule-following animal (as assumed by Hayek, 1982; Nozick, 2001; Searle, 2003; Sellars, 1949).

In the second place, rule-free regulation is “adeontic” in nature, in that it presupposes an understanding of neither the concept of “ought” (and of the associated categories) nor of the existence of obligations (or of other associated normative entities). More specifically, rule-free regulation is “adeontic” in nature in that it neither presupposes “modal deontic categories” as understood within the deontic logic of Georg Henrik von Wright (1951) nor a “deontology” as understood within the social ontology of John Searle (1995, 2003, 2006 and 2010).²⁹ Rule-free regulation is a regulation “without deontology” in that it is a kind of regulation that aims to influence and modify human behaviour by operating in an *adeontic* sphere, a sphere devoid of any form of intrinsic deontology. It is a form of regulation which does not require deontological categories, usually considered indispensable for the existence of law itself, such as bans, obligations, commitments, rights, responsibilities, duties, privileges, entitlements, penalties, permissions, authorizations. For example, rule-free regulation is not—as we have seen—implemented by means of “deontic artifacts” (for instance, roundabouts, traffic lights, traffic signs). Therefore, it works apart from deontic powers, human institutions and institutional facts in Searle’s sense (see Searle, 1969, 1995, 2005, 2006, 2010).³⁰

Note that, by its very nature, rule-free regulation “permits” neither obedience/compliance nor disobedience/non-compliance: it is inherently impossible to comply with a form of *adeontic* regulation (by contrast with deontic regulation which is susceptible of compliance and breach). Nor does it make sense to speak in terms of “direction of fit” in relation to *adeontic* regulation. Indeed, in this case there is no type of intrinsic content—either propositional or non-

propositional, linguistic or pictorial—that can be related to the world.³¹ In other words, one of the two essential elements for the direction of fit is lacking: content, which in the case of speech acts is a “propositional content”, according to Searle (1979).

We maintain that it makes no sense to ask whether a homeless person has violated the “precept” implicit in the physical structure of a Camden bench (i.e., not to sleep on it).³² And a Camden bench certainly has no content—propositional or non-propositional—which may be related to the world, nor a direction of fit which links it to the world (a thing-to-world direction of fit). In short, it makes no sense to ask whether a certain behaviour fits with a *regulative adeontic artifact* like a Camden bench.

In conclusion, and reverting to the famous Is/Ought demarcation, it is possible to state the distinction between “Is-World” and “Ought-World”. Rule-free regulation functions also in a purely *Is-World* and does not need the conceptual and ontological structures of the *Ought-World* to work.

DATA AVAILABILITY STATEMENT

Data sharing not applicable to this article as no datasets were generated or analysed during the current study.

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ENDNOTES

- ¹ That is, repeatable and time-independent actions rather than unrepeatable and strictly time-dependent ones. On features of this kind, see O’Driscoll & Rizzo (1985).
- ² That is, to an indefinite number of non-assignable individuals. On this concept, see Barry (1990).
- ³ In this regard, Krecht (1986) speaks of “normative regulation”. As we shall see, this is an expression that is anything but tautologous.
- ⁴ “Based on the claim that people’s irrationality is persistent, [...] Thaler and Sunstein (2008) proposed that governments should ‘nudge’ their citizens into better behaviour—to protect them not from external enemies, but from themselves” (Gigerenzer, 2019, p. 6).
- ⁵ See on this Preda (2000) and Rip (2009).
- ⁶ According to Lessig (1998 and 1999), architecture is a form of regulation additional to law, norms and markets. In the view of Lessig (1998, p. 663), some “features of the world—whether made, or found—restrict and enable in a way that directs or affects behavior. They are features of this world’s architecture, and they, in this sense, regulate.” In short: “Architecture might regulate individuals directly” (Lessig, 1998, p. 685). This regulatory prospect (together with the concept of the “nudge”) underlies the recent “call for public comments” issued by the Japanese Ministry of Economy, Trade and Industry on the basis of the report entitled *Governance innovation: Redesigning law and architecture in the age of society 5.0*. See https://www.meti.go.jp/english/press/2019/1226_001.html (accessed April 2020).
- ⁷ Searle (2010), for instance, distinguishes between a simple behavioural “disposition” not to cross the line, and a recognition of the fact that one is under obligation not to cross the line. In Searle’s view, if we train a dog with punishments and rewards not to leave the garden, we are merely modifying its disposition (we would say, by a rule-free regulation); there is no space for obligation or duty here (Searle, 2010, p. 95). On this, see McCaffree (2018).
- ⁸ As these examples show, “rule-free regulation” may be (and often is) also “word-free regulation”; that is, a kind of regulation that does not need sentences and more generally a linguistic frame. See Lorini & Moroni (2020).
- ⁹ See <https://www.standardtoilet.net/> (accessed March 2020).

- ¹⁰ See <https://www.rnz.co.nz/news/national/330142/anti-homeless-sprinkler-systems-‘inhumane’> (accessed March 2020) and Gavaghan (2017). A fourth (but theoretically less original) example is provided by warning labels (e.g., pictorial health warning labels) on packets of cigarettes displaying smoke-related illnesses that could affect the smoker (Thrasher et al., 2012a, 2012b; MacKinnon & Fenaughty, 1993).
- ¹¹ We assume that “regulative *adeontic* artifacts” differ from “*deontic* artifacts”. Deontic artifacts are artifacts produced with an explicitly normative and deontic intent. Examples of deontic artifacts are roundabouts and traffic lights. By contrast, regulative *adeontic* (i.e., non-deontic) artifacts are artifacts which do not have a normative intent and a normative function as such. In short, in our view deontic artifacts influence human conduct by exercising a normative function (for instance, introducing a prohibition or an obligation), whereas regulative *adeontic* artifacts condition human behaviour in other ways (ruling out the “deontic” dimension: they modify behaviours without applying any specific obligation or prohibition). We might say that “*deontic* artifacts” show how *rules* can be “codified” in objects, whilst “regulative *adeontic* artifacts” show how *options* can be “codified” in objects. On this, see Lorini & Moroni (2020).
- ¹² On multiple functions of images, see Moroni & Lorini (2020).
- ¹³ This priming phenomenon probably exploits—*am Phantasma*—the power of sight that is at the basis of the psychological mechanisms studied by Goffman (1963) under the name of “violation of the rule of civil inattention”. According to Goffman, we generally maintain with strangers—particularly in certain situations such as being in a lift together—an attitude of what he calls “civil inattention”. Yet if strangers behave inappropriately, with just a glance we can engender a sense of shame or embarrassment, thereby altering their behaviour. On civil inattention, see also Hirschauer (2005) and Haddington et al. (2012).
- ¹⁴ As part of a programme promoted by the *Community Against Preventable Injuries* and the *British Columbia Automobile Association*. See <https://www.preventable.ca/in-a-rush-at-a-school-zone-seriously/> (accessed March 2020); <https://www.bcaa.com/media-centre/2018/2018-09-18-new-survey-reveals-unsafe-school-zones-during-2018-back-to-school-week> (accessed March 2020).
- ¹⁵ The opposite case (i.e., encouraging particular behaviours) may be exemplified by a practice in 1980s discos where certain songs were known as “dancefloor fillers”, which DJs played in order to attract disco-goers to the dancefloor.
- ¹⁶ This regulatory strategy is also consistent with the concept of “natural surveillance” which arose from the theory of *Crime Prevention Through Environmental Design* (CPTES). On this, see Ray (1971).
- ¹⁷ Refashioning an idea of Akrich (1992, p. 208) related to *technical objects*, one could say that the various examples of this form of regulation contain—and have metaphorically “inscribed” within them—the recipient’s “vision of (or prediction about) the world”.
- ¹⁸ On this see Uher (2016, p. 12). Obviously, where one is influencing animal behaviour, the specific “world” of the animal whose behaviour one intends to influence must be considered. Suffice it to consider the different types of visual perception that characterise various animal species (Uexküll, 1926, Uexküll & Kriszat, 1958).
- ¹⁹ A similar case of real-world contradiction is in Thaler and Sunstein (2008), where they recount the story of a door in a university classroom in which Richard Thaler taught a course. This classroom door had a big handle. The door was to be (not pulled) but pushed from the side where the handle was. This caused some embarrassment to students who wanted to sneak out during the lesson because they kept pulling the door instead of pushing it. As Thaler and Sunstein (2008, 82) write: on a door “flat plates say ‘push me’ and big handles say ‘pull me’, so don’t expect people to push big handles! This is a failure of architecture to accommodate basic principles of human psychology. Life is full of products that suffer from such defects.” On the affordances of artifacts, see for instance Cosentino (2019).
- ²⁰ A fourth instance involving the exploitation of the psychological dimension would be the use of irony or denigration as regulatory instruments (Grabosky, 2016).
- ²¹ As Lewis (2017, p. 133) writes: “Danny [Kahneman] and Amos [Tversky] had noticed how oddly, and often unreliably, their own minds recalculated the odds, in light of some recent or memorable experience. For instance, after they drove past a gruesome car crash on the highway, they slowed down: Their sense of the odds of being in a crash had changed.” See on this Kahneman (2011).
- ²² On this, see for instance Ikuenobe (2019, p. 4).
- ²³ On the more general effects of artifacts on human behaviour, see Pols (2013).
- ²⁴ Nudge theorists speak in this regard of “choice architecture”. As Thaler et al. (2013, p. 428) write: “A choice architect has the responsibility for organizing the context in which people make decisions”. The background

- idea is that the way in which a decision situation is structured and presented influences certain choices over the alternatives. For a review and taxonomy of choice architecture techniques, see Münscher et al. (2016). For a generalization of the idea of choice architecture, see Johnson et al. (2012).
- ²⁵ As it will have been noticed, some of the examples proposed by Thaler and Sunstein are also examples of rule-free regulation. But this does not mean that the overlap (for that matter, partial) between the *examples* also implies an overlap of the *categories*.
- ²⁶ As Hansen & Jespersen (2013, p. 5) observe: “Thaler and Sunstein seem to admit as much: nudging is a manipulation of choices”. But “the characterization of nudging as mere manipulation of choice is too simplistic” (2013, p. 5). See also Baldwin (2014, p. 4): “Thaler and Sunstein adopt a conception of the nudge that is both broad and contested by some commentators. Thus, the two authors include within nudging a number of examples of simple information provision (e.g., ... demands that firms inform employees of work hazards ...). They also cloud matters by citing, as examples of nudges, some uses of economic incentives (e.g., to limit pregnancies) which contradicts their definitional exclusion of fiscal measures from the category of nudges”.
- ²⁷ From our perspective, some very interesting criticisms are levelled against the original idea of nudge by Hausman & Welch (2010), Hansen & Jespersen (2013), Calo (2014), Hill (2018), Mongin & Cozic (2018).
- ²⁸ Note that we entirely agree with Edward Tufte’s position on the “multimodality of information production”. The same principle also applies to norms/rules: a norm/rule remains such regardless of how it is formulated, expressed and manifested. One may speak of the “multimodality of rules production”. Referencing the title of a book by Tufte (2006) *Beautiful evidences*, there can be different kinds of “evidences of norms”: a written statement somewhere; a drawing or image (i.e., visual or designed norms); a sound (e.g., the referee’s whistle); a tactile surface with a specific physical configuration (i.e., tactile norms for the blind), etc.
- ²⁹ On Searle’s social ontology, see for example, Lawson (2016a, 2016b) and McCaffree (2018). In response to Lawson, see Searle (2016).
- ³⁰ On *deontology* and *deontic powers* see Lobo (2015), Bauwens (2018), Martins (2018) and Stevanovic (2018).
- ³¹ On the idea of the *direction of fit*, see especially Anscombe (1957), Austin (1953), Searle (1979 and 1984), Searle & Vanderveken (1985). See also Humberstone (1992) and Kissine (2007). In applying this idea to *speech acts*, Searle (1979, p. 3) writes: “Some illocutions have as part of their illocutionary point to get the words (more strictly, their propositional content) to match the world, others to get the world to match the words. Assertions are in the former category, promises and requests are in the latter.” On the idea of the direction of fit in the case of *non-verbal (graphic) norms*, see Moroni & Lorini (2017).
- ³² On discussing *techno-regulatory mechanisms*, Gavaghan (2017, p. 125) writes: “A great many other aspects of our lives are regulated in this way—not by rules and instructions that we are called upon to obey, but by structures and devices that render non-compliance practically or literally impossible.” Gavaghan’s idea is certainly of considerable interest in itself: he speaks of devices, which, unlike rules, cannot be breached. However, he commits a “category-mistake” here (*à la* Ryle, 1949) when he uses the category of “compliance” (possibly under the influence of a kind of “deontic-centrism”) to describe the effectiveness of such artifacts which are in themselves “adeontic”. The category-mistake involves the use of a “deontic” vocabulary to describe a phenomenon which is in itself “adeontic”, properly speaking.

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