# Liberty, Paternalism, and Road Safety

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**Abstract**

Traffic safety measures such as seat belts, helmets, and speed limits have often been opposed by people claiming that these measures infringe on their liberty. Safety measures are often described as paternalistic, i.e., as protecting people against their own will. This chapter provides a historical account of such criticism of safety measures, beginning with nineteenth-century opposition to sanitation

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measures, which were claimed to threaten the freedom to drink dirty water. The historical analysis has a surprising conclusion: Opposition to safety measures does not seem to have much to do with paternalism. Some measures that would typically be described as paternalistic, such as seat belts in commercial aviation and hard hats on construction sites, have met with no significant opposition. In contrast, some of the most vehemently opposed measures, such as speed limits and the prohibition of drunk driving, cannot with any vestige of credibility be described as paternalistic. This is followed by an analysis showing that due to our tendency to follow examples set by others (herd effects), purely self-affecting behavior is much less common than what has usually been assumed. Most of the opposition to safety measures in road traffic seem to result from some individuals' desires to engage in activities that endanger other people's lives. The social need to restrain the satisfaction of such desires is obvious.

**Keywords**

Acceptance of safety measures · Herd effects · Liberty · Paternalism · Traffic safety · Vision Zero

## Introduction

In April 1985, the Senate of the State of Washington discussed a proposal to make the use of seat belts mandatory. Arguing against the proposal, Senator Kent Pullen (R) conceded that seat belts would save lives, but in his view, that was not reason enough to make them mandatory. "There is something more important than life itself," he said, "and that's freedom" (Leichter 1991, p. 12). This is a type of argument that traffic safety has met with throughout its history, and it is still in very active use. Currently, a Missouri law-maker, Eric Burlison (R), is working hard to repeal the motorcycle helmet law in his state. Like Pullen, he recognizes that his policies will lead to more deaths, but that does not deter him. "At the end of the day," he says, "it's about individual responsibility and individual freedom. I want my neighbor to stay safe and healthy, but it's not my business to force those decisions upon my neighbor" (Huguelet 2020).

We hear similar messages in many other contexts. The American Enterprise Institute campaigns against the "spirit of anti-smoking paternalism" that has given us smoke-free bars and restaurants, and they deplore attempts by legislators to remove unhealthy components such as trans-fats from food, calling all this "a remarkable confiscation of freedom" (White 2006). The owner of a British pub who was criticized by the authorities for deficient hygiene complained about "our modern nanny state's requirements for sterile and salubrious certification" (Woolfson 2016). Anti-vaccination campaigners call themselves "freedom keepers," and claim that parent's rights not to have their children vaccinated is a matter of "civil rights" (Mays 2019). And in 2017, an Australian parliamentarian declared the prevention of such measures to be his main aim in politics.

> When our most basic rights and freedoms are being chipped away at on a daily basis through nanny-state regulations and big-government paternalism, with smoking indoors banned, irrespective of what the owner of the property thinks; with bicycle helmets mandatory, despite the rest of the world agreeing that they are really not worth the effort; and with e-cigarettes, a potentially life-saving alternative pathway to quitting smoking, practically banned, I will be there, making the case for personal choice and personal responsibility. (Stonehouse 2017)

What is all this about? Of course we want freedom, but we also want traffic safety, healthy food, and protection against deadly diseases. How severe is the conflict between safety and liberty? Can we have safety on the roads in a free society, or do we have to choose between freedom and safety?

## Paternalism and Liberty

At the center of this discussion is the concept of *paternalism*, protecting someone against her or his will. The critics of government interventions – or at least the more thoughtful among them – accept government interventions to prevent people from harming others, but they reject interventions intended to prevent us from harming ourselves. The latter type of regulation, they say, treats adults as if they were children. That is why it is called paternalistic.

### Defining the Term

The word "paternalism" is derived from "paternal," which means fatherly. In the late nineteenth century, it was often used in a positive sense, in particular about employers who cared for their employees. Today it is almost universally used in a negative sense. In the scholarly discussion, Gerald Dworkin's definition of paternalism is widely accepted. In its latest variant it says:

> Paternalism is the interference of a state or an individual with another person, against their will, and defended or motivated by a claim that the person interfered with will be better off or protected from harm. (Dworkin 2020)

Three major components of this definition should be noticed: (1) a person is interfered with, (2) the person in question does not desire that intervention, and (3) the interference has the purpose to benefit this person (Wilson 2015).

A small modification and some clarification of the definition will be useful. To begin with the modification, Dworkin only mentions that "a state or an individual" can interfere with a person, but certainly so can also a company or some other type of organization. For instance, a company that performs construction work may choose to fence in the worksite for no other reason than a desire to protect the public from danger. Similarly, a manufacturer may choose to voluntarily withdraw a product because of problems with its quality or safety, although some consumers still want

the product. A company that takes such actions behaves paternalistically in the same sense as a government that makes the same type of decisions for the same type of reasons. In these and other cases, an action affecting a group of persons can be paternalistic towards some but not all of its members, depending on whether or not they oppose the action (Grill 2018).

Dworkin's term "interfere with" is in need of clarification, and indeed he provides such a clarification later on in the text, when he specifies that the paternalist "interferes with the liberty or autonomy" of the targeted person (Dworkin 2020). This is an important clarification, since otherwise the list of paternalistic actions would grow to enormous proportions. In private life and in work-life we often find ourselves doing something for the benefit of a person who does not appreciate it. And unavoidably, political decisions intended to benefit large groups of people are not always appreciated by all of them. Some writers have used the term "paternalism" for all sorts of political decisions that are intended to benefit the population, including government funding of healthcare, education, public broadcasting, museums and theaters, tax deductions for pension savings, and subsidies of leisure activities and healthy food (Le Grand and New 2015, pp. 12, 52–54, 65–66, and 153; Conly 2017, p. 208). With such a wide definition, the building and maintenance of roads is also paternalistic, and so most certainly is law enforcement, which – just like publicly funded art museums – is intended to benefit all, but unfortunately is not appreciated by all. If we call all of this paternalism, we risk losing sight of the much more limited range of cases that have been at the focus of debates on paternalism, such as seat belts, motorcycle helmets, and vaccination. These cases all have in common that they satisfy Dworkin's criterion of interfering with the liberty or autonomy of the targeted person (Cf. also Dworkin 1972, p. 67). Another way to express this is that they limit the person's choices by removing an option, making an option less accessible, or reducing her ability to choose.

In definitions and more principled discussions of paternalism it is assumed that a person has a right to harm or risk her own health and well-being, but it is not assumed that she also has a right to harm her family members or expose them to risk. However, in political discussions, and even in some academic texts, the latter assumption is made as well. Even Giubilini and Savulescu (2019, p. 241), who commendably advocate universal vaccination programs, describe this as a matter of "how much weight we want to give to paternalism compared to individual freedom, and particularly the freedom to decide what kind of risks to take on oneself or on one's children." Shiffrin (2000, p. 217) takes this even further, suggesting that a park ranger behaves paternalistically if he prevents a person from making a dangerous mountain climb, not at all out of concern for the person himself or herself but for the person's spouse who would be left grief-stricken in the case of a fatal accident. As noted by Dworkin (2015, p. 26), according to how paternalism is usually defined, this case rather exemplifies "precisely the contrast class to paternalism."

Non-paternalistic measures to promote safety and public health have a long tradition. For instance, free vaccinations were an important part of infection control throughout the nineteenth century, and they still are (Rigau-Pérez 1989, p. 400; Daker et al. 1893, p. 217; Anon 1894). In order to encourage traffic behavior that

reduces the risk of crashes, stop lines have been painted on roads since 1907, and centerlines and pedestrian crossings since 1911 (Petroski 2016). The strategy behind these and other similar measures for health and safety was summarized in 1976 by the American public health scholar Nancy Milio:

> The point is that most human beings, professional or nonprofessional, provider or consumer, make the easiest choices available to them most of the time, and not necessarily because of what they know is most healthful. Thus, if it is agreed that health-promoting life patterns are a good thing, then the focus for changing behavior should be on the problem of how to make health-generating choices more easy, and how to make health-damaging choices more difficult. . .
>
> In order then for life-style patterns to alter among individuals in numbers sufficient to affect the incidence of major diseases, new, health-promoting options must be available, and more readily so than health-damaging options, i.e., in such a way as to be less costly in dollar and other costs. (Milio 1976, pp. 435 and 437)

In 2008, the term "nudge" was introduced in a book promoting this approach (Thaler and Sunstein 2008). Neither this nor most other texts on "nudge" acknowledges the long tradition of similar ideas in public health. This was pointed out by Signild Vallgårda (2012), who also noted that "while renaming an activity has the benefit of creating enthusiasm and new energy and providing the encouraging feeling of being part of something new, it also has a drawback: it could lead to a neglect of insights generated by the pursuance of similar policies in the past." In their book, Thaler and Sunstein used the term "libertarian paternalism" about the "nudge" approach. As already mentioned, this is a usage that, if applied consistently, would lead us to classify a large part of the benevolent activities that take place in society as "paternalistic." It should be recognized, though, that some of the actions that are "libertarian paternalistic" according to Thaler and Sunstein, but not paternalistic according to traditional definitions, are problematic in other ways, for instance, by being manipulative (Mols et al. 2015; Dworkin 2020). This was also noted by Dworkin, who said:

> Their definition of Paternalism is very weak in the sense that it allows many more acts to count as paternalistic than would be under almost all traditional definitions of paternalism. (Dworkin 2020)

In order to avoid thinning out the concept, I will use the term "paternalism" only for interventions that satisfy Dworkin's definition, as explicated above. This is the terminology that appears to be most in line with the tradition, at least in philosophy. Of course, a different terminology could have been chosen. We could choose to use the term "paternalistic" about all measures that have the purpose to benefit a person against that person's will, or without her consent. Then, however, we would have to introduce a new term for what is called "paternalism" here.

## How Bad Is Benevolence?

Dworkin's definition of paternalism has a peculiar feature, which it apparently shares with all other definitions of the term. This is his third criterion, which says that a paternalistic action is "defended or motivated by a claim that the person interfered with will be better off or protected from harm". We can call this the criterion of benevolence.

Something seems to be wrong here. That an action affecting another person is benevolent towards that person is surely a morally good feature of that action. But paternalism is presumably bad. So how can a good feature of an action be a necessary requirement for the action to belong to a category of bad actions?

The mystery deepens if we consider how benevolence is usually assessed from a moral point of view. Consider the following example (which happens to be based on an actual occurrence):

> After spreading thawing salt (road salt) on the asphalt outside his own house, Ahmad walked over to his elderly neighbor's house and strewed some salt on her entrance stairs. When she noticed this a couple of hours later, she was much annoyed since she believes that thawing salt will cause the stairs to crack.
>
> *Case A*: Ahmad did this because he was worried that she might otherwise slip and break her leg.
>
> *Case B*: Ahmad did this because his wife had told him that another neighbor wanted him to sprinkle salt over her stairs, but he mistakenly went to the wrong neighbor's house.
>
> *Case C*: Ahmad did this because he wanted to wreck her stairs.

In case A, Ahmad's action is benevolent. In case C it is malevolent. In case B it is neither benevolent nor malevolent; we can call it neutral in that case.

It can, I believe, be safely assumed that most of us would agree that Ahmad's action is morally better in case B than in case C, and even better in case A. Wanting to help your neighbor seems to be a better excuse than confusing her with someone else. Case A is the case in which Ahmad's action was benevolent. Apparently, this example confirms the supposition that benevolence contributes to making actions good, rather than to making them bad.

But perhaps this example is untypical since it concerns actions by individuals, rather than actions by governments or organizations? Let us consider such examples, and begin with an example of a business organization.

> Liliana owns the only hardware store in town. She has stopped selling a particular brand of electric jigsaws, although several customers would still like to buy one.
>
> *Case A*: Liliana did this because the protection of the user's hands on this particular saw is inferior to that of other brands, and she did not want her customers to be hurt.
>
> *Case B*: Liliana did this because her supplier did not offer this particular saw any more, and she did not take the trouble to look for someone else who can supply it.

In case A, Liliana's purpose is clearly benevolent towards the customers whom she has deprived of the option to buy this particular saw. Furthermore, according to standard usage of the term, her decision in this case is paternalistic. In case B, in

contrast, her action is neither benevolent nor paternalistic. It is just an ordinary business decision. The decision in case A is clearly praiseworthy from a moral point of view, and we might even use it as an example of corporate social responsibility on a small scale. In case B, her decision does not seem to be particularly praiseworthy from a moral point of view. So is paternalism better than business as usual? Then it cannot be terribly bad, or can it?

Let us consider a similar example where the government is involved:

> Liliana had to stop selling the power jigsaw. It would have been illegal to sell it since the government did not prolong its type approval.
>
> *Case A*: The government decided not to prolong the type approval because the jigsaw did not have a satisfactory protection of the user's hands.
>
> *Case B*: The reason why the type approval was not prolonged was that a government official failed to include this brand on a list of electric tools for routine prolongation of the type approval. Due to procedural rules introduced by a previous government, it will take a full year to correct the mistake.

In case A, the motive of the decision was benevolent, and it can also be described as paternalistic. And again, the paternalistically motivated version of the decision would appear to be the morally best version.

Thus, it seems as if benevolence cannot make an action or a decision worse than what it would otherwise have been. Then how can benevolence be a defining characteristic of an undesirable feature of an action, namely, that it is paternalistic? Can the notion of paternalism at all be saved from this conundrum?

Yes, there is in fact a fairly satisfactory solution to this, but it requires a small change in the definition: The definition should not refer to the presence of paternalistic justifications of the action, but rather to the absence of sufficient non-paternalistic justifications. This is also what Dworkin indicates. When he elaborates his benevolence criterion more in detail, the crucial phrase is:

> *X* does so *only because X* believes *Z* will improve the welfare of *Y* (Dworkin 2020; emphasis added)

(*X* is the agent who behaves paternalistically, *Z* the paternalistic action, and *Y* the person who is the target of the paternalistic action.)

In other words, a sensible anti-paternalist cannot maintain that it is wrong to have paternalistic motives or justifications for one's actions. (The terminology is somewhat intricate. A motive or justification for an intervention affecting a person is commonly called "paternalistic" if it is benevolent towards that person, irrespectively of whether or not the intervention infringes on that person's liberty. This usage will be followed here.) The wrong will have to be identified as that of not having sufficient non-paternalistic motives or justifications. Let us consider an example that illustrates this:

> For many years Stephen has earned his living by travelling around with a pendulum ride, which he sets up on various festivals and fairs. One day he is visited by a safety inspector

from a government agency. After discovering a serious fault in the machine, the inspector issues an injunction prohibiting Stephen from offering any more rides on it.

*Case A*: The inspector does this because of a serious risk that the attendant, that is Stephen himself, can be killed in an accident. Riders are not at risk.

*Case B*: The inspector does this because of a serious risk of an accident in which both the riders and the attendant can get killed.

*Case C*: The inspector does this because of a serious risk that the riders can be killed in an accident. The attendant is not at risk.

Stephen, we may assume, is a fervent anti-paternalist. In case A, he can legitimately claim that the inspector has acted against him on purely paternalistic grounds. Such a claim would not be tenable in the other two cases, since the risk to the riders is reason enough for the inspector's decision. But would it be reasonable for Stephen to claim that the inspector's argument for closing down his machine is weaker in case B than in case C, since a concern for Stephen's own well-being is involved in the former case but not in the latter?

INSPECTOR: I have decided to close down your machine because there is a large risk that riders can get killed if you continue to operate it.
STEPHEN: I fully respect your decision.
INSPECTOR: I appreciate that. I should also tell you that you would probably be killed yourself in such an accident, and of course that contributed to my decision.
STEPHEN: What are you saying? Are you a paternalist wanting to protect me? Then I cannot respect your decision any longer. Are you really sure that it is necessary to close down the machine immediately?

It would not be absurd to claim that a paternalist argument has no weight at all. (This would mean that the inspector's injunction is justified to the same degree in cases B and C.) However, as this example shows, it would be utterly absurd to maintain that a paternalist argument carries a negative weight. There may of course be anti-paternalists who maintain that it is blameworthy to harbor concerns for other people's well-being. I am not claiming that such a position is impossible or non-existent, only that is a morally absurd position that is not worth taking seriously. This is written during the Covid-19 epidemic in 2020. Among the many statements that have been made on what governments should and should not do in relation to this health crisis, I have as yet not heard a claim that governments have no business to be concerned with the population's health. (This would mean that the injunction is less well justified in case B than in case C.) This confirms the limit to sensible anti-paternalism that was proposed above: It has to be concerned with the absence of sufficient non-paternalistic motives or justifications, not with the presence of paternalistic ones. This also means that the legitimate concerns of anti-paternalism are concerns about infringements of liberty, not about other people's benevolence. Wilson (2015, p. 212) reached a similar conclusion. Several authors have pointed at the difficulties involved in judging an action by a government or an institution by its intention (e.g., Dworkin 1972, p. 65). Participants in a decision may differ in their intentions, and it is far from clear how their intentions can be aggregated (Preyer

et al. 2014; O'Madagain 2014; Salice 2015). I will give the last word to the safety inspector:

> Inspector: Look here, Stephen. I have full respect for your strong views on personal liberty. I certainly cherish the idea of a free society myself. But there is an imminent risk to your customers, and that is reason enough to close down the ride. The freedom that I believe in is not a freedom to hurt others. And if you don't like that I care for your safety, then let me just tell you one thing: I am in my right to do so. How can you bother about your own liberty without accepting my liberty to care and worry about other people? Would you now please close down the ride?

## What Options Can We Forbear?

We have identified the bad that anti-paternalists legitimately worry about as infringements in liberty. Liberty consists in being able to choose between different options. We can therefore express this as a concern that people are deprived of options that they could otherwise have chosen among. This is clearly an important concern. Everyone's right to make their own decisions and to choose their own way of life is a crucial part of what it means to live in a free society.

Living in a society with other people comes with a wealth of options that an eremite living in the wilderness does not have. (Just think of what you have been doing today, before reading this. How much of that could you have done without the combined effects of the actions of innumerable other humans, of present and past generations?) As our societies develop, some options are lost while others are added. Some options have been lost due to commercial decisions; for instance, you cannot buy a new car with a 20 hp engine any more. (That was the power of the Ford Model T motor.) Other options have been lost due to government decisions; you cannot spray DDT on your garden roses to get rid of insects. (This use of the pesticide was still recommended by the US Department of Agriculture in 1967, 5 years after Rachel Carson's book Silent Spring (1962) was published (Smith 1967, pp. 6 and 9–12).) Both these are examples of lost options that few would wish to regain. They illustrate that not all losses of options are regrettable. In the case of DDT, there was considerable resistance to the change (Krupke et al. 2007), but that reaction has since long abated. Let us have a look at some examples of safety-related infringements of liberty, what reactions they have encountered and how those reactions have developed.

### Sanitation

Our first example is a classic issue in public health, namely, clean water and hygienic sewage systems. The British Public Health Act, adopted in 1848, authorized local authorities to take control over water supply, sewerage, and other facilities needed to ensure hygienic living conditions. The new law was strongly supported by those whose living conditions it would improve, as well as by philanthropists and radicals

in higher social strata, but it also met with considerable resistance (Roberts 1958, 1979, pp. 200 and 258–259; Wiggins 1987; Porter 1999, pp. 119–120).

Speaking in the House of Commons, the Tory MP Charles Newdegate (1816–1887) described the law as "a departure from the free principles of the British Constitution". His liberal colleague George Muntz (1794–1857) considered the whole issue of sanitation to be "grossly exaggerated," and denounced the legislation as unnecessary since "[t]he people were clever enough to manage their own affairs" (House of Commons 1847, cc. 729 and 750). Another liberal MP, Edward Divett (1797–1864), warned against "the constant meddling and dictation" that he expected from the government authority overseeing the legislation. "The electors did not object, it was true," he said, "to sanitary improvement; but they did not choose to be ordered how to set about it." (House of Commons 1848, c. 725) The most prominent opponent of the law was the influential conservative MP David Urquhart (1805–1877), who opposed the bill because it placed "despotic powers" in the hands of the Government. Government had already too much power, he said, and he was determined to do whatever he could "not merely to prevent any increase to that power, but to reduce the amount of it which the Government at present enjoyed." (House of Commons 1848, cc. 712 and 715)

The most vociferous critics could be found in the Tory papers. For instance, the London journal *Morning Herold* argued that "[a] little dirt and freedom may after all be more desirable than no dirt at all and slavery" (Roberts 1979, p. 200). However, the prevalence of such sentiments receded in the coming decades, and today we do not hear much talk about the importance of being free to drink contaminated water or walk on filthy streets.

## Workplace Safety

The legal approach to workplace health and safety underwent large changes in the late nineteenth and early twentieth centuries. According to the old tradition, male workers were responsible for their own safety, and any attempt to lay responsibility on the employer was conceived as an infringement on the workmen's freedom of contract. For instance, in 1880 a liberal government in Britain introduced new legislation that gave workers right to compensation from the employer for injuries incurred on the workplace. The Tories vehemently opposed this measure. In Parliament, the conservative member Thomas Knowles (1824–1883), who had business interests in coal mining, warned that the new legislation would be disastrous for mine owners, whose companies in his view had so many accidents that the law would in practice "confiscate their property". He also told Parliament that due to the new liability legislation, he estimated that his own assets in coal mines had only half the value that they had had a week ago (Knowles 1880, cc. 1100–1101. Cf. Green 1995, p. 73.). There was also considerable resistance against the law within the liberal party (Green 1995, p. 75). The prominent left liberal philosopher Thomas Hill Green (1836–1882), who supported the legislation, summarized the most prominent argument of his opponents as follows:

> "The workman," it was argued, "should be left to take care of himself by the terms of his agreement with the employer. It is not for the state to step in and say, as by the new act it says, that when a workman is hurt in carrying out the instructions of the employer or his foreman, the employer, in the absence of a special agreement to the contrary, shall be liable for compensation. If the law thus takes to protecting men, whether tenant-farmers, or pitmen, or railway servants, who ought to be able to protect themselves, it tends to weaken their self-reliance, and thus, in unwisely seeking to do them good, it lowers them in the scale of moral beings." (Green 1888 [1881], p. 365)

Crossley (1999, p. 292) quotes this passage, but removes Green's four quotation marks as well as the phrase "it was argued". He correctly attributes the text to Green, but omits the crucial information that Green described his opponents' views, and incorrectly describes the text as written by "[o]ne opponent of the Act". This, said Green, was an argument "which many of us, without being convinced by it, may have found it difficult to answer." (Green, p. 365) But he had an answer:

> When we speak of freedom as something to be so highly prized, we mean a positive power or capacity of doing or enjoying something worth doing or enjoying, and that, too, something that we do or enjoy in common with others. We mean by it a power which each man exercises through the help or security given him by his fellow-men, and which he in turn helps to secure for them... If the ideal of true freedom is the maximum of power for all members of human society alike to make the best of themselves, we are right in refusing to ascribe the glory of freedom to a state in which the apparent elevation of the few is founded on the degradation of the many, and in ranking modern society, founded as it is on free industry, with all its confusion and ignorant licence and waste of effort, above the most splendid of ancient republics. (ibid., pp. 371–372)

A contract in which someone "bargains to work under conditions fatal to health" could not, in his view, be defended in the name of freedom since it was "an impediment to the general freedom," preventing the workers from making the best of themselves (ibid., p. 373). At the core of his argument was his assertion that the freedom to take a dangerous job, without even a right to compensation in the case of an accident, was simply not a freedom worth having. This was also the general viewpoint among workers, and it was therefore Thomas Knowles and other opponents of this "paternalist" legislation, rather than its proponents, who claimed to know better than the workers what their interests were. With the exception of marginal mavericks, the anti-paternalist argument against workplace safety regulations and workers' compensation is since long a historical phenomenon. (See Spurgin (2006) for a refutation of anti-paternalist argumentation for unsafe workplaces.)

## Seat Belts

The seat belt was invented by the English engineer George Cayley (1773–1857), who intended it for use in airplanes. In aviation, the use of seat belts was uncontroversial from the very beginning. For instance, the very first aircraft of the

US army, delivered by the Wright brothers in 1910, came with seat belts. From the beginning of commercial aviation traffic, passenger seats were provided with seat belts. In the US, the first government regulation requiring passenger seat belts went into force in 1926. The use of seat belts has continued to be uncontested in air traffic. Flight attendants asking passengers to buckle up are seldom met with negative reactions. In spite of the standard phrase "for your own safety" used in the safety announcements, airlines do not seem to be accused of being instruments of the "nanny state." In short, no one seems to demand the right to travel in an airplane without using a seat belt (Johannessen 1984; Vivoda and Eby 2011).

Already in 1885, seat belts could be found on some horse carriages. They were also used in racing cars as early as in 1922. However, the automobile industry did not equip their vehicles with belts. In the 1930s, physicians with experience of treating victims of automobile accidents started to advocate the mounting and use of seat belts in motor vehicles. However, not much happened until the 1950s, when designers developed safer and more convenient seat belts for cars. In the beginning, their constructions were largely based on the belts used in airplanes. In 1959, the Swedish engineer Nils Bohlin (1930–2002), who had a background in constructing ejection seats for airplanes, invented the three-point seat belt for cars. In the 1960s, more and more countries required all new cars to be equipped with seat belts, and car manufacturers started to include them as a standard (Johannessen 1984; Vivoda and Eby 2011).

In 1970, the Australian state Victoria adopted the first law making the use of seat belts mandatory (but only for drivers and front seat passengers). This was followed in the 1970s, 1980s, and 1990s by more and more countries. Today, the use of seat belts is mandatory in front seats in most countries, but many countries still do not require the use of belts in rear seats. In the beginning, considerable anti-paternalist resistance was mobilized against seat belt legislation. It was described as an infringement on liberty. For instance, one American opponent claimed that such legislation "violates the right to bodily privacy and self-control" of the drivers and passengers, and that it treated them in a "coercive, demeaning manner" (Solan 1986). The critics did not hesitate to oppose seat belt legislation for children. For instance, in a debate in the British parliament in 1988, the Conservative MP Gary Waller said that it "would be going too far" to require that parents refrain from driving more children in the car than there are belts for. He favored a noncompulsory approach and argued that "we should consider carefully whether a regulation is necessary or whether it would be better for advice to be given in the highway code, and for persuasion rather than compulsion to be exercised to ensure that children are carried in cars as safely as possible" (Waller 1988, cc. 591–598).

As seat belt laws have been introduced and enforced, this type of reaction has become increasingly uncommon. As Elvebakk (2015, p. 298) noted, opposition to obligatory seat belts is now "long forgotten in Europe." In 2019, two ethicists summarized the situation as follows:

> Within a few years, wearing seat belts became widely accepted and indeed endorsed in most countries. It became not only a legal, but also a social norm precisely because it was made compulsory and people started buckling up. . .
>
> As often happens, people simply get used to and comply with new legal requirements even when they are initially opposed to them, and in the long run they see it simply as a social norm. (Giubilini and Savulescu 2019, pp. 237–238 and 243)

This appears to be an accurate description of the general picture, although there are still a few people, both in politics and in academia, who oppose mandatory seat belt legislation (Solomon 2010; Flanigan 2017).

## Helmets

Helmets have been worn by soldiers for at least four and a half millennia (Gabriel 2007, pp. xiv and 80). There does not seem to have been any uproar or mutinies against orders to wear protective headgear on the battlefield.

In 1917, the US Navy provided workers in shipyards with hard hats to protect them from falling objects. In the early 1930s, some construction workers used homemade hard hats for the same purpose, whereas others used surplus WW1 helmets provided by their trade union. The Golden Gate Bridge in San Francisco, built in 1933 to 1937, seems to have been the first major construction workplace where the employer provided helmets to all workers and made their use mandatory. Advertisements from the 1930s onwards for helmets of different shapes and materials show that there was a demand for protective headgear (Snell 2018; Rosenberg and Levenstein 2010). Although some individual workers found hard hats uncomfortable, there does not seem to have been any ideological or organized resistance, and their use is now undisputed on construction sites and other workplaces with risks of head injuries. The requirement to wear them is seldom questioned, or as two researchers on occupational safety wrote:

> Hard hats are different from other forms of P[ersonal] P[rotective] E[quipment]; people wear them even when they don't need to. There is no compliance issue with hard hats. They're cool. (Rosenberg and Levenstein 2010, p. 240)

The first motorcycle helmet seems to have been constructed by the English physician Eric Gardner. It was used for the first time in a race on the Isle of Man in 1914. After the race, Dr. Gardner received the following message from a colleague: "Every year the humdrum of medical practice in the Isle of Man is relieved by interesting concussion cases in our hospital from the Tourist Trophy Race; this year, thanks to your damned helmet, we have had none." (Gardner 1941) In the inter-war period, motorcycle helmets seem to have been used on racetracks but not much on roads.

In 1939, the Australian-British neurologist Hugh Cairns (1896–1952) started to work with brain-injured WW2 soldiers. Many of them were military motorcycle messengers. After studying their injuries, he emphatically proposed "for all motorcyclists, civilians and fighting Forces alike, the use of a crash helmet of the type worn

by racing motor-cyclists" (Cairns 1941, p. 466). Following his advice, both the Army and the Air Force provided all their motorcyclists with helmets, which they were required to use (Lanska 2009). This initiative seems to have been well received by the motorcyclists themselves. Cairns wrote:

> When we began to treat Army motor-cyclists at [a military hospital in] Oxford, we naturally got to know their comrades—keen motor-cyclists in the Army Training Schools, Royal Corps of Signals, and other units, who were very much alive to the wastage of their man-power from accidents, and they needed little encouragement to become enthusiastic advocates of compulsory use of crash helmets. (Cairns 1946, p. 322)

Summing up his work after the war, Cairns wrote:

> From these experiences there can be little doubt that adoption of a crash helmet as standard wear by all civilian motor-cyclists would result in considerable saving of life, working time, and the time of the hospitals. (Cairns 1946, p. 323)

After the war, motorcycle helmets were probably more common than before, and much improved helmets reached the market. However, a large number of motorcyclists continued to ride unprotected. This was changed through political decisions. During the period when seat belts became mandatory in country after country, motorcycle helmets also became mandatory (but often somewhat later than seat belts). Currently, motorcycle helmets are obligatory almost everywhere in the world, except in the US (https://apps.who.int/gho/data/view.main.51427. Accessed April 9, 2020.).

In 1977, all but a handful states in the US had mandatory helmet laws that applied to all riders. However, there was considerable resistance from an active anti-helmet lobby, whose anti-paternalistic message appealed to Conservative and Libertarian lawmakers. In consequence, several states rescinded their helmet laws or weakened them to apply only to teenage drivers. In 1995, Congress repealed the federal legislation that had incentivized states to uphold the helmet requirement. This led to an avalanche of revocations of state laws (Jones and Bayer 2007). At the time of writing (2020), only 19 states and the District of Columbia have universal helmet laws (https://www.iihs.org/topics/motorcycles. Accessed April 9, 2020).

Just like motorcycle helmets, bicycle helmets protect efficiently against severe brain damage and fatalities that may result from cycling accidents. In bicycle sport, a minority of riders have used helmets at least since the 1950s, and helmets became much more common in the 1990s. They became obligatory in 2003 (https://web.archive.org/web/20160304110024/ http://oldsite.uci.ch/english/news/news_2002/20030502i_comm.htm. Accessed April 9, 2020.). In the 1970s, a small minority of non-racing (transportational and recreational) cyclists began to use helmets, and a few companies sold helmets intended specifically for cycling. Standards were adopted, and helmets satisfying the standards were designed. In Victoria (Australia), helmet promotion activities led up to the introduction of a law in 1990 that made helmets mandatory for all cyclists (Cameron et al. 1994). The other Australian states have followed suit, and universal helmet laws have also been

adopted in New Zealand and Argentina. Some other countries have made helmets mandatory only for children, but still in 2020, most countries have no legislation requiring the use of bicycle helmets.

Ice hockey has been played since the late nineteenth century. It is a sport with many head injuries, but up till and through the 1950s, almost no player ever used a helmet or any other type of head or face protection. This was much due to a "culture of toughness" that led players to view injuries as a part of the sport, which one had to endure. In the 1960s, the major hockey organizations introduced obligatory helmets for youth players. In 1979, the National Hockey League made helmets obligatory for professional players (with an exemption for older players, who were allowed to continue playing without a helmet). Helmets are now an uncontroversial part of the equipment of hockey players, and there is no sign that players crave for playing without them (Bachynski 2012).

## Drunk Driving

Patricia Waller has described the attitudes to drunk driving that still prevailed in many countries in the 1970s:

> Drunk driving was considered more or less a "folk crime," almost a rite of passage for young males. Most adults in the United States used alcohol, and most of them, at some point, drove after doing so. This is not to say that they drove drunk, but many of them undoubtedly drove when they were somewhat impaired. Although the law provided for fairly harsh penalties, they were rarely applied. Upon arraignment, defendants would ask for a jury trial, and because drinking and driving was so widespread, juries almost invariably acquitted the defendant, thinking, "There but for the grace of God go I." (Waller 2001, p. 3)

Writing in 2001, she noted that "[r]emarkable progress has been made" (ibid., p. 4). This would not have been possible without the convincing data produced by the research community, she said, but another contribution was at least as important:

> It was citizen action groups that provided the impetus for major changes in public policy governing drinking and driving. Their activities generated public support for enforcement of existing laws and enactment of new ones. (Waller 2001, p. 3)

Particularly in the 1980s, activist groups changed the focus of the discussion from the drivers to the victims, not least children (Williams 2006). As emphasized by Leonard Evans (1991, p. 352), "the most important factor was the widespread serious discussion of the tragic dimension of the problem in the media, with the consequent deglamorizing of the drunk as a likeable humorous character."

A few contrary voices have been heard. In 1994, a philosopher published a journal article in which he claimed that drunk driving is not a serious offense. As an alternative to preventing drunk driving he proposed the removal of roadside trees, which are the "most commonly struck objects" by drunk drivers, as well as the introduction of airbags, which "would make drunk driving much less risky" (Husak 1994, p. 68). As

late as in 2011, a major libertarian magazine in the US published an article describing the prohibition of drunk driving as "nanny state" legislation. The author claimed, incorrectly, that "[e]xperienced drinkers" differ from less experienced ones in that they "can function relatively normally with a B[lood] A[lcohol] C[ontent] at or above the legal threshold." He used this as an argument for entirely "repealing drunk driving laws" so that a drunk person should be allowed to drive unless he is "violating road rules or causing an accident" (Balko 2011). However, in experiments with driving simulators, heavy ("experienced") drinkers did not perform better under the influence of alcohol than unexperienced drinkers (Marczinski and Fillmore 2009; Fell and Voas 2014).

Today it is difficult to defend drunk driving in public. In some countries, opponents of efficiently enforced drunk driving laws have instead turned against the means of enforcement, for instance, claiming that random sobriety checks on the roads (sobriety checkpoints) are an unbearable infringement of the liberty of drivers. In Australia, activists working for the introduction of random breath testing found themselves opposed by "the alcohol industry and its supporters, notably civil libertarians and anti-nanny state proponents," who claimed that this would be an infringement on individual freedom (Howat et al. 1992, p. 20). One American legal scholar described this method of law enforcement as "[f]ascist-like sobriety checkpoints" (Miller 1993, p. 174). This argumentation has not been without success; in several states in the US the police are not allowed to perform random sobriety checks (Fell et al. 2004; Vissing 2014).

In the 1990s, a reliable method to prevent drunk driving was introduced in the form of alcohol interlocks (breath alcohol ignition interlock devices). Currently available technology requires the driver to provide a breath sample prior to starting the vehicle (and usually also at random times when driving, to prevent the use of another person's exhalation air). Ongoing research aims at obtaining the same result without a breath sample – either through analysis of the driver's normal exhalations or by measuring blood alcohol levels noninvasively with infrared light directed at the driver's fingertips (https://www.dadss.org. Accessed 10 April 2020.). In a large number of countries as well as all states in the US, courts can order convicted drunken drivers to install alcohol interlocks in their cars, as a means to prevent repeat offence. In 2005, the Swedish (social democratic) government announced a coming bill that would make alcohol interlocks mandatory in new cars by 2012. However, the new (conservative) government that entered office after the general election in 2006 decided not to go forward with the legislation, and since then there has not been a political majority for the measure (Grill and Nihlén Fahlquist 2012).

As yet, there does not seem to be much resistance against alcohol interlocks. That may be because their current use has the effect of increasing the automotive freedom of convicted drunk drivers. By installing the alcolock, they can keep or regain their driver's license, which they would otherwise have lost. However, it is plausible that proposals to introduce breathalyzers in all motor vehicles can give rise to counter-reactions of the same types that we have seen against laws mandating seat belts and motorcycle helmets. In 2019, the European Union announced plans to require all new cars from 2022 to be technically prepared for easy installation of alcohol

interlocks. This will facilitate later installation of interlocks if the driver is convicted of drunk driving, or chooses to mount an interlock for other reasons (such as, possibly, a future tax reduction for those who do so). It will of course also simplify any future decision to make alcohol interlocks obligatory. This latter possibility was keenly observed by a conservative motorist organization in the US, the National Motorists Association (NMA). In one of their newsletters, they first criticized other safety features mandated in Europe, such as advanced emergency braking systems (AEBS) and systems that warn a driver who gets drowsy. They continued:

> The other mandatory element that is problematic: Every new car would include an alcohol interlock installation facilitation. The driver's blood alcohol content could potentially be checked by breathalyzer or by tactile sensors. The mandate would mean no driver could start a car without passing the electronic testing... Vision Zero proponents want to rein in irresponsible, that is, all (in their minds) motorists by literally limiting speed, choice, privacy and personal responsibility. The war on cars and on drivers is heating up. (National Motorists Association 2019)

## Speeding

It was known long before the introduction of the modern automobile that high speed increases the risk of accidents involving vehicles. The oldest speed limit on record seems to be a regulation that was passed in Newport, Rhode Island, in 1678, forbidding horse-riders to "gallop or to run speed" in the streets. In Boston in 1757, carriages were limited to "foot pace" on Sundays to protect church visitors. The first speed limit referring to an exact velocity was probably the legislation passed in Britain in 1865 for steam carriages on highroads, which were limited to at most 4 mph (6 km/h). In the early twentieth century, many countries introduced speed limits for automobiles, often with different velocities for different kinds of roads (Elston 1971, pp. 21–22). This was "a time when motorists were in the minority and unpopular" (Tripp 1928, p. 535), and judging by articles in the newspapers at the time, there was considerable public support for these restrictions. In 1907, the American magazine *Harper's Weekly* published an article about "speed mania," describing the perpetrators as follows:

> [I]n every case their mania arises from an overweening sense of their own importance, accompanied by very slight capacity for self-restraint. The type of man who motors at dangerous speed is the same type that speculates in more stocks than he is able to carry, eats and drinks more than he can assimilate, covers himself with gaudy jewels, makes an objectionable exhibition of himself on every possible occasion. The strong arm of the law is the only effective curb for this species. . . (Underwood 1907)

In contrast, "[a] decent regard for the safety of mankind will always preserve the normal man from giving way to speed mania" (ibid.). It did not take long before motorists started to strike back. In 1911, the Automobile Club of America demanded that "all speed limitations should be omitted from the law," for the somewhat curious

reason that "no matter what the limit is, the majority of drivers will try to exceed it." They did however emphasize that "[c]areful driving" should be enforced (Dorrian 1911).

Speeding continues to be a major factor contributing to the prevalence and severity of road traffic accidents (Farmer 2017; de Bellis et al. 2018). Cavalier attitudes to the dangers of speeding are perpetuated by widespread and entrenched myths such as "a general belief that speeding slightly in excess of the limit (up to at least 5 km/h, perhaps as much as 10 km/h) is not associated with increased crash risk if the driver is otherwise driving safely" (Delaney et al. 2005b, p. 23). A Swedish writer who obviously believed in this myth claimed that speed limits are a form of "collective punishment" in order to solve the problem with "those who do not manage reasonably safe" at higher speeds (Eberhard 2006, p. 291).

Speed cameras, which have been introduced throughout the world since the 1970s, have met with considerable resistance. The experiences reported from an Australian speed camera program appear to be typical:

> As the speed camera program expanded in 2001 and lower speeds over the limit were targeted, various controversies came to the fore and had high public profile. These included the notions that the program was established principally to raise revenue for the government (fine money goes to consolidated government revenue), that camera locations included those where it was "safe" to speed, that overt operation of cameras was most appropriate if the aim was to deter speeders at unsafe locations, that exceeding the speed limit by only a small amount was safe, that there was no opportunity afforded to explain the circumstances of the event, and that the reliability of cameras and speedometers came into doubt when the tolerance was perceived to be only about 3 km/h (1.9 mi/h) above the speed limit. (Delaney et al. 2005a, p. 408)

This is a long list of complaints, but interestingly, it does not contain any clear anti-paternalist or "nanny state" argumentation. In Britain around the year 2000, resistance to speed cameras was even more outspoken and active than in Australia, but the argumentation was about the same (Pilkington 2003). Even the clandestine organization Motorists Against Detection (MAD), which claimed to have destroyed 600 speed cameras, justified their activities by claiming that the real purpose of the cameras was to collect speeding fines for the government (Chancellor 2003). Speed cameras are still vandalized in many countries (Max 2019; Robinson 2019). In summary, there are people who hate speed cameras so intensely that they go to the extreme of vandalizing them, but they do not usually invoke anti-paternalist arguments to justify their opinions or their actions.

Speed control can be taken to a new level with Intelligent Speed Adaptation (ISA), i.e., a system that keeps track of the speed limit where the car is driven and relates it to the actual speed. ISA systems can be either passive or active. A passive system warns the driver, whereas an active system reduces the speed to the legal limit (possibly with an option for the driver to override the system). Active ISA systems (speed limiters) have been predicted to drastically reduce the number of fatalities in road traffic (Carsten and Tateb 2005). Based on this, a strong moral argument can be made in favor of making active ISA obligatory (Hansson 2014, p. 373; Smids 2018).

However, several studies indicate that drivers' willingness to install and use such a system is low (Fu et al. 2020). Numerous newspaper articles describe speed limiters as an entrance gate to the "nanny state" (e.g., Mowat 2019). A Canadian truck-driver who had been ordered to use a speed limiter went to court, arguing that this order infringed on his freedom (Nyholm and Smids 2020). Although he lost his case, this indicates that the introduction of automatic speed adaptation can lead to a clash between traffic safety objectives and strongly felt anti-paternalistic sentiments.

## Conclusions

Summing up the above, we have studied quite a few examples of legal requirements and mandatory practices that can be said to reduce the freedom of choice of individuals in some way or other. We can classify them in three main categories. The first category consists of *uncontested restrictions*, i.e., restrictions in liberty or freedom of choice that have never encountered significant ideological or organized opposition:

- helmets in the military
- seat belts in airplanes
- helmets in motorcycle racing
- helmets on construction workplaces
- alcohol interlocks for convicted drunk drivers

These examples have somewhat different backgrounds. Soldiers have been ordered to wear helmets since ancient times, and no one seems have come up with the idea of accusing their commanders of thereby restricting the soldiers' liberty, or freedom of choice.

Seat belts were mounted on passenger airplanes from the beginning of commercial aviation (at a time when flights were much more shaky than today), and today their use is an entrenched habit, which no one seems to put in question. They are just one of a large number of safety arrangements that we take for granted without thinking much about them. To see how common and how generally accepted such arrangements are, let us suppose that you try to avoid them. Suppose that you go to a household appliances store and look for a microwave oven that can emit microwaves when the lid is open. You will be told that no such ovens are made. If you go to the hardware store and look for power tools with uncovered live electrical parts, you will be equally disappointed. All the power tools on sale have sturdy protective shields to keep the user safe from electric shocks. Next, you go to an auto glass shop in order to have the cracked windshield of your car replaced. You want a windshield of common inexpensive window glass, instead of the expensive laminated safety glass that you are offered. "I am sorry," says the repairman, "but all windshields are made of laminated glass."

What has happened? Has the nanny state invaded the shops and stopped them from providing the articles you asked for? Yes, in a sense it has, since there are

(in most countries) regulations enforcing safety standards for microwave ovens, power tools, windshields, and a myriad of other products. However, even in the absence of such regulations, it is much to be doubted whether any of the articles you asked for would be manufactured, or whether, if they were made, anyone would buy them. No one seems to care for the liberty to avail themselves of such products. And similarly, no one seems to ask for the liberty of remaining unbelted in an aircraft during take-off or landing. In fact, few would even care to know if it is the government, the airline, or perhaps some international aviation organization that decided that we all have to use a safety belt onboard.

The last three examples in this group differ from airplane seat belts in having been introduced as a new practice in an existing activity. Motorcycle racing and construction work were originally performed without helmets. The protective headgear was introduced without any ideological or organized opposition. Similarly, in-car breathalizers for convicted drunk drivers were introduced without resistance.

Our second major category consists of *previously contested* restrictions in liberties and freedom of choice that are now generally accepted:

- clean water and hygienic treatment of sewage
- employer's responsibility for safe workplaces
- seat belts in cars (in most countries)
- helmets in ice hockey
- prohibition of drunk driving

There have been days when fervent campaigners fought for the liberty to forgo modern sanitation, to work in extremely dangerous mines (or rather, to hire others to do so), to drive drunk, and to play ice hockey without helmets. Today, no one (with the possible exception of a few eccentrics) propagates these standpoints, for the simple reason that desires to exercise these liberties are no longer considered to be reasonable or worth supporting. The same is now, in most countries, true of desires to travel without seat belts in motorcars. This means, for instance, that hockey helmets are now equally uncontroversial on the ice rink as hard hats on the construction site. Notably, in all these cases, the transition has been gradual, and it has been accomplished by activists concerned about other people's health and safety.

Our third and final category contains the *currently contested* restrictions in liberties and freedom of choice. These are the practices that encounter significant ideological or organized resistance:

- motorcycle helmets on roads
- bicycle helmets
- universal alcohol interlocks
- speed cameras
- speed limiters in cars

Judging by the historical experience, some of these practices may in the future find their way into the second category. For instance, in countries such as Sweden,

motorcycle helmets seem to be at a rather late stage in that process. However, this is not a transition that can be taken for granted. Vaccination belongs to this third category. It has remained contested for more than two centuries, despite its tremendous contributions to public health (Meyer and Reiter 2004).

At least four important conclusions can be drawn from this résumé of uncontested, previously contested, and currently contested infringements on liberty. First, *some but far from all restrictions of individual liberties are at all contested, and over time, there are large changes in what restrictions are contested.* We saw this clearly in the discussion of the second category (previously contested).

Secondly, *which restrictions are contested has very little to do with the distinction between paternalistic and non-paternalistic constraints on liberty.* Some of the most passionately opposed restrictions cannot with any vestige of credibility be described as paternalistic. This applies, for instance, to prohibition of drunk driving, as well as speed cameras and speed limiters. On the other hand, some of the restrictions that have encountered little or no opposition are commonly considered to be paternalistic. This includes seat belts in airplanes and hard hats in the building industry.

Thirdly, *we accept restrictions more easily if we encounter them in situations where we are accustomed to do as we are instructed.* This goes a long way towards explaining why helmets have been accepted in armies and on workplaces, as well as – after some initial opposition – in organized sport activities, where directives from referees and coaches have to be followed (Bachynski 2012).

Fourthly and finally, *we are less prone to accept restrictions if they require changes in our entrenched habits.* This seems to have been an important factor in resistance to several safety measures in road traffic, such as seat belts, helmets, sobriety, and reduced speed. As a corollary, we can expect restrictions to encounter little opposition if they are introduced from the beginning in a new activity (e.g., seat belts in airplanes). Habits also seem to have a role when previously disputed restrictions gain acceptance. For instance, seat belt laws induced law-biding people to buckle up. This became a habit – the "new normal" – and habituation to this convenient and well-justified routine appears to have led to its acceptance (Boughton 1984, p. 187).

Seen in this perspective, many of the issues that have been depicted as conflicts between paternalism and anti-paternalism are in fact largely fought along other – no less important – conflict lines, such as that between one person's freedom and other persons' safety. However, this does not imply that the issue of paternalism is irrelevant. In the next section we are going to have a close look at the scope of anti-paternalist arguments.

## The Significance of Human Connectedness

The purpose of anti-paternalism is to protect everyone's right to make and follow her own choices in matters that only concern herself and nobody else. Therefore, the scope and importance of anti-paternalism depends on what types of situations there are that answer to that description.

Obviously, there are many choices that only concern the person who makes them. This includes many of the liberties we have in private life. The color of my coat, what books I read, what furniture I buy (if I can afford it and I live alone) are under normal circumstances nobody else's business, and these are only a few of the many liberties that we should all have. There are also many liberties that we should all have, although our exercise of them can have large impact on others; this includes the political liberties of democracy. However, many of the allegedly private actions that have been at focus in discussions on paternalism are not as unconnected to other people's lives as they have often been claimed to be. This, as we will see, can have considerable impact on the scope and strength of anti-paternalist arguments.

Some discussions of liberty give the impression that we humans are rational atoms, each with her own, individually chosen, goals, and with no other obligations to each other than to avoid colliding when we follow our chosen trajectories in the huge space of possibilities. But this is not a true picture of human life. To the contrary, we are all bound to each other in innumerable ways, and no one can reach very far without the – past or present, willing or unwilling, intended or unintended – actions by others. Sometimes this interdependence is hidden from us, and sometimes we prefer to see it as an unchangeable background, like the mountains and the seas. But that is an illusion. Almost everything we do connects us with other human beings.

This interdependence is reciprocal, which means that it goes in two directions. On the one hand, the choices and decisions that we make are far less individual than what we tend to believe, and much more co-determined by others. On the other hand, our actions have effects on others, effects that we are often not aware of. Both these aspects of our social interdependence have important moral implications, not least for the scope and applicability of anti-paternalist arguments. Let us begin with the first of them.

## Combined Causes and Extended Anti-paternalism

The causality of human actions is much more complex than what we usually think (Hansson 2022). Most of the actions that we ascribe to a single person do in fact depend on the combined actions of many persons (sometimes acting at different points in time). In a discussion on paternalism, we have reason to apply this insight in particular to self-harming actions, or more generally, actions that go against the interests of the person who performs them. (There are of course many cases in which it is impossible to determine univocally what goes against a person's interests and what does not. For our present purpose, we can leave such cases aside.) In many cases when we talk of a person as harming herself, or acting against her own interests, others have made choices and taken actions without which the self-harm would not have been possible:

- *A drug addict harms herself by buying addictive drugs that destroys her health.*

This would not have been possible without drug dealers who choose to sell products that havoc the health and the lives of most of the people who use them.

- *A smoker harms her own health by smoking cigarettes.*

  This would not have been possible without the cigarette companies that have chosen to sell and aggressively market products that kill about half of the people who use them.
- *A cyclist rides to work on a dangerous road among cars and trucks driving at high speed.*

  This would not have happened if the road authorities had arranged a separate bicycle lane.
- *A motorist drives without a seat belt.*

  In the vast majority of cases, she would have fastened the seat belt if the manufacturer had equipped the car with a seat belt reminder.
- *A motorist drives at an excessively high speed on the expressway, endangering both her own life and that of others.*

  This would not have happened if the manufacturer had installed a speed limiter making it impossible to drive the car at speeds at which it cannot be controlled.

These are all cases of "mixed" causality, in which harm to a person is caused by a combination of her own actions and actions by others. In such cases, the causal role of the others is often downplayed, and the action is described as purely self-harming. For instance, the drug dealer is sure to claim that "it was her own decision to buy the drug" and "if I hadn't sold it to her, then someone else would have done so." (For a discussion of responsibility ascriptions in such cases, see Hansson (2022).)

Anti-paternalism, properly speaking, defends a person's right to harm herself. From such a right it does not follow that others have a right to harm her, or to contribute to harming her. However, attempts have often been made to extend the "green light of liberty" that anti-paternalism bestows on self-harming actions to other-harming actions by others that contribute to the same harm. One of the most remarkable examples of this is the argumentation of the tobacco industry. This is an industry with a long and still on-going record of aggressively marketing massively death-bringing products. For instance, in three decades, the 1970s to 1990s, tobacco companies focused disproportionately large resources on areas in American big cities with predominantly African American residents. They distributed free cigarettes in the streets, and focused particularly on what they called the "starter market," i.e., new smokers, mostly minors. These marketing activities led to a considerable increase in smoking among Afroamericans. One of the consequences of this was that the prevalence of lung cancer among black men, which had previously been lower than among white men, rose to levels higher than those among white men (Yerger et al. 2007). This is only one of many examples of the decisive impact that marketing and propaganda has on smoking. However, the tobacco industry spends considerable efforts on describing smoking as depending exclusively on the smokers' own free decisions, claiming, for instance, that "the growing intrusion of government in the lives of adult smokers is a threat to the freedoms of all citizens" (Katz 2005, p. ii33. Cf: Cardador et al. 1995; Apollonio and Bero 2007; Schneider and Glantz 2008;

Fallin et al. 2014). With these campaigns they try two achieve two results: First, they try to attribute smoking entirely to the individual smoker's decision. They have been remarkably successful in promoting this rather obvious fallacy. For instance, in a book published in 2006, a Swedish physician (!) ridiculed lung cancer patients who sued tobacco companies, claiming that these plaintiffs professed "not to know that it was dangerous to smoke" (Eberhard 2006, p. 313). Secondly, by appealing to anti-paternalism on behalf of the smokers, they try to ensure that anti-paternalism also protects their own, massively other-harming, activities.

This is an extreme example, but the same pattern of thought can be found in many other contexts where anti-paternalism is invoked to protect other-harming actions. But how valid is this type of argument? If anti-paternalism protects my right to drink so much that I am unable to walk home, does it also absolve the publican who serves me that much liquor? If anti-paternalism allows me to eat food with toxic mold or pesticide residues, does it also acquit the food industry or my grocer for selling such food (properly labeled) to me? If anti-paternalism lets me ride a motor-cycle without a helmet, does it also exonerate the rental agency that rents out a motorbike to me without including a helmet in the rental? And if it permits me to drive a car without a seat belt, does it also condone a carmaker who refrains from mounting a seat belt reminder as standard equipment?

The general issue illustrated in these examples is that of *extended anti-paternalism*, by which is meant the use of anti-paternalist arguments to justify actions or activities that harm (consenting) others, usually in combination with self-harming actions or decisions by the persons in question. The term "extended anti-paternalism" was introduced in Hansson (2005). In the literature on paternalism, the distinction between anti-paternalism in the proper sense and this extension has usually not been made. Authors who observed the distinction, or some variant of it, have usually not made much of it (Mill (1977 [1859], pp. 296–299; Dworkin 1972, pp. 67–68; Dworkin 2020, section 2.4; Feinberg 1986, pp. 9–11; Schramme 2015).

From a logical point of view, it is obvious that a right to harm oneself does not imply a right to harm consenting others or to facilitate or contribute to their self-harming activities. But logic alone cannot tell us if it is reasonable to extend anti-paternalism in this way. That is a moral question, and it has to be discussed in terms of moral principles. We can approach this moral issue by first reminding ourselves of how we deal with it in private life. What moral attitudes do we usually have to the combined effects on a person of actions by herself and actions performed by others? It does not take much reflection to see that this depends on the nature of the combined effect.

We are at liberty to do many things that are presumed to have a positive value. For instance, suppose that you have a friend who likes to read books. We would normally see it as not only allowed, but also commendable, to help her to exert that liberty, for instance, by picking up books at the library for her or recommending her books that she might like. We also see it as positive if (commercial or nonprofit) services, such as bookshops, libraries, and reading groups, are available for her and others wishing to exert this liberty. The same applies to a multitude of other activities that people are at liberty to perform, and which we presume to have predominantly positive effects

on the well-being of those who choose them. This is how we usually perceive actions that help people to exert their liberties.

But there are also liberties that are endorsed per se (for the sake of liberty as such), rather than for any positive effects of realizing them. Liberties to harm oneself belong to this category. In private life, helping others to harm themselves is usually held to be morally misguided, if not outright wrong. Suppose that your neighbor has the unusual obsession of burning small scars on his body with a burning glass. This action is presumably not illegal, and neither do we tend to morally condemn it. (On what grounds could we condemn it, and of what use would it be to do so?) Let us assume that we take an anti-paternalist position to this activity; in other words we consider it to be a form of self-harm that he is at liberty to perform, and which we have no right to prevent him from. Is it then reasonable to augment our anti-paternalism in this case to extended anti-paternalism? In other words: Is it morally allowable to help him by holding the burning glass over his back so that he can get scars there as well? Is it OK to recommend him a stronger burning-glass, or buy one for him? And if he becomes an Internet celebrity and attracts followers burning scars into their own skins, is it good business ethics to produce and market "scar burners," specially adapted to the purpose?

The obvious answer to all these questions is "no." In private life, morality requires that we care for other people, and doing so is not compatible with encouraging or helping them to harm themselves, or even with looking the other way when they do so. The morally laudable reaction to his burning obsession would be to try to help him: talk to him about why he does it and what could to make him stop, find ways to help him break the habit, perhaps find a psychiatrist who can help him.

The example is unusual, but it illustrates how we usually react to clear examples of self-harming activities when we encounter them in our private lives: Instead of contributing to other people's self-harm, we try to help them out of it. We do not praise those who buy liquor to the alcoholic, emetics to the bulimic, or poison to the depressed and suicidal friend. Instead, we praise those who try to make them change their minds and develop more positive thoughts and habits. Extended anti-paternalism does not work in our everyday lives. Empathy and care do.

This insight can also be applied on a larger social scale, in discussions about what communities, organizations, companies, and governments should do. By breaking up the false inference from anti-paternalism to extended anti-paternalism, we open up for a more efficient strategy to promote safety and public health. Such a strategy should actively prevent the exploitation of self-harming action. This includes, for instance, effective curtailment of the pathogenic activities of tobacco companies. Instead of blaming each other for dangerous and self-destructive behavior, we should make our society and the options it offers less dangerous. This is the approach that has been applied for more than a century in occupational safety, with considerable success. Instead of admonishing workers not to put their fingers into the press machine, the employer installs a machine that does not move unless both hands are in safe places. If this approach was ever criticized for being paternalistic, then that criticism is long since forgotten. Applying it in road traffic would mean to ensure that vehicles and the road system are so constructed that self- and other-harming

activities on the road, such as speeding, driving drunk or on the wrong lane, are technically impossible. This, by the way, is a large part of what Vision Zero is all about.

## Herd Effects: How We All Influence Each Other

In the discussion on paternalism in public health, it has often been pointed out that many activities that seem to be "pure self-harm" with no effect on others do in fact have significant impact on others than the person who exposes herself to a harm or risk. An unbelted back seat passenger can become a projectile in the event of a crash, and injure or even kill front seat occupants. This effect is surprisingly large; according to one study, the risk for a belted driver or front seat passenger to die in a crash increases almost fivefold if she has an unbelted passenger behind her on a rear seat (Ichikawa et al. 2002). Psychological costs to bystanders who witness a deadly crash have also been mentioned, and should most certainly be taken seriously (Feinberg 1986, pp. 139–141). An even more serious concern is the suffering of family members: children who lose a parent and spouses who have to care for a seriously injured accident victim, or mourn the loss of their partner (McKenna 2007). The risk of making one's children father- or motherless is probably an important consideration in many private discussions and deliberations. It was also discussed in the newspapers after the death of a female climber, the mother of two small children, in a descent from the summit of K2 in 1995 (Barnard 2002). However, it does not seem to have been much discussed in connection with accidents in road traffic such as the around 2000 unhelmeted motorcyclists who die on American roads every year, many of whom are sure to be parents (NHTSA 2019, p. 11). Arguments referring to the economic costs have had a more prominent role. They concern the costs of hospital care, rehabilitation, a future life in a nursing home, and subsistence for family members (Hundley et al. 2004). In some of the American states that allow unhelmeted motorcycling, unhelmeted riders are required to have an extra insurance to cover personal injuries (Langland-Orban and Flint 2011). Obviously, if these psychological, social, and economic costs of injuries and fatalities on the road are taken into account, then the common anti-paternalist argumentation against measures to improve traffic safety will lose almost all its bite.

However, arguably the most important reason why anti-paternalism cannot be applied to actions such as helmetless motorcycling has been absent from these discussions, namely, what I propose to call the *herd effects* of individual behavior. Many authors have provided what appears to be intended as a complete list of effects of helmetless motorcycling that anti-paternalism cannot legitimize, without mentioning herd effects (Schonsheck 1994, pp. 107–141; Camerer et al. 2003; de Marneffe 2006, pp. 82–83; Thaler and Sunstein 2008, pp. 232–233; Nolte et al. 2017).

Herd effects a rise because in almost all our decisions, we humans tend to follow the examples of others. This has been known for long. Already Julian of Eclanum (c.386-c.455) wrote about the "contagion of sin" (Barclift 1991, p. 14), and his

contemporary John Chrysostom (c.349–407) strongly emphasized the positive side of this, namely, the importance of being a good example to others (Chrystostomus 1836, p. 788, c.1D). The concept of behavioral or social contagion was introduced into social science by the French scientist Gustave Le Bon (1841–1931). Today there is an extensive literature on how all kinds of human behavior is propagated in populations through our tendency to copy or imitate the behavior of others (Lehmann and Ahn 2018).

This applies not least to behaviors relevant to public health, such as smoking, drinking, substance abuse, and physical exercise (Christakis and Fowler 2013). There is also ample evidence of strong contagion effects on both the following and the breach of safety rules on workplaces (Liang et al. 2018; Liang and Zhang 2019). In road traffic, social contagion has a large role in creating a "culture of driving." An important study in the early 1990s showed that "drivers are sensitive to the influence of others and... that a small shift in the behavior of few can be amplified, through the interaction between individuals and their collectives, to a larger effect, resulting in a changed social environment or a modified 'culture of driving'" (Zaidel 1992, p. 585). Other studies have confirmed that drivers have a strong tendency to adapt to the prevailing speed pattern (Connolly and Åberg 1993; Edwards et al. 2014). There is also evidence of similar effects on risky pedestrian behavior McGhie et al. 2012).

Unusually clear evidence of social contagion has been found in those states in the US that replaced a law requiring all motorcyclists to carry a helmet by a law that only required this of young riders. In these states, large numbers of young riders chose not to use a helmet when they saw older riders riding helmetless. In Florida, the number of motorcycle fatalities among riders younger than 21 nearly tripled after the helmet law was downgraded in this way in 2000 (Bachynski 2012, p. 2216. Cf. Nolte et al. 2017). A group of public health researchers have pointed out that a similar effect can be expected for bicycle helmets:

> We also conjecture that by applying the [bicycle helmet] law to children but not adults we would encourage a "rite of passage" effect (much as happens with cigarette smoking), whereby older children abandoned helmets to signify their maturity. This perverse effect would subvert an explicit, if secondary, policy aim of making helmets compulsory for children, which is to encourage adults to adopt helmets in order to set an example without compromise to adults' legal liberty and moral autonomy. (Sheikh et al. 2004, p. 264)

These results put what seemed to be purely self-affecting decisions, such as whether or not to use a seat belt or a helmet, in an important, previously neglected, perspective, namely, that of how our actions influence other people's actions. We humans are not mental solitarians who make decisions and choices independently of each other. To the contrary, we are herd creatures. We all observe what others do, and we usually follow trends, in particular trends among people whom we feel akin to. If you speed, others will feel encouraged to do the same. If you use a bicycle helmet, then that can have a considerable influence on people whom you know, and it can also have a

smaller influence on a larger number of people, namely, those who see you riding with the helmet.

Do these herd effects have any moral relevance? Do we have a moral obligation to behave in ways that give rise to positive rather than negative effects on our fellow beings? Or are these effects just byproducts of our actions and choices, for which we have no responsibility? I can see no reason to treat herd effects differently than other consequences of human action. In other words, they are morally relevant. This means that we are morally accountable for the foreseeable effects of the examples we set. It is morally blameworthy to set bad examples, for instance, by taking foolish risks to no avail, and it is morally praiseworthy to set good examples, for instance, by following safety rules and using protective equipment. This is not a new or original standpoint; presumably it has never been a highly esteemed conduct to drink oneself into a stupor or play dangerously with knives in the sight of children or adolescents. But apparently we need to be reminded that the same moral principles apply to many behaviors that have been considered protected by anti-paternalism.

A useful comparison can be made with another type of contagion, namely, infectious contagion. There are two reasons why you should take vaccinations against infections that threaten public health. First, vaccination protects your own health. Secondly, vaccination protects other people, since if you do not get the disease you will not spread it to others. This is particularly important for vulnerable people who cannot, for medical reasons, take the vaccine. For instance, vaccination against measles, a potentially deadly childhood disease, cannot be given to babies. Their only protection is herd immunity in the population, which is obtained when those who can take the vaccine do so. This means that vaccination is not just a personal matter, and consequently refusal to vaccinate is by no means protected by anti-paternalism. There are strong reasons to regard vaccination against diseases that threaten the community as a moral obligation (Jamrozik et al. 2016; Pierik 2018).

This is written during the Covid-19 pandemic in 2020, which has led to drastic measures all over the planet to contain the infection, including lockdowns and social distancing. The same reasons for these measures apply as for vaccination: You do this in order to protect yourself against the disease, but also to avoid spreading it to others. In this case, vulnerable, mostly elderly, people are most at risk, and they depend for their protection on the willingness of others to take the measures necessary to avoid contracting and spreading the disease.

Unfortunately, there is in both cases, vaccination and social distancing, a minority of people who either have not understood that the recommended measures are needed to protect others than themselves, or just do not care. We can call this the *Bolsonaro fallacy* after the Brazilian president Jair Bolsonaro who has flagrantly and defiantly violated the directives of his own administration to reduce the spread of Covid-19, with the justification "If I have got myself infected, so OK? Look, that is my responsibility, no one has anything to do with this." ("Se eu me contaminei, tá certo? Olha, isso é responsabilidade minha, ninguém tem nada a ver com isso." From an interview on March 16, 2020. Last accessed 14 April 2020 on https://www.youtube.com/watch?v=M0za8MSoO64&feature=youtu.be. At 6:58–7:02.)

This example provides a useful background for the moral appraisal of how we contribute to social contagion, which is no less a formidable force in society. The mechanisms through which our behaviors impact on those of others can be even more imperceptible than viruses and bacteria, but they are just as real. A motorcyclist who wears a helmet contributes to creating a culture, or social environment, in which helmets are an unquestioned part of motorcycling, just as hard hats are worn routinely on construction sites. A motorcyclist who refrains from using a helmet contributes, to the contrary, to maintaining or creating a social environment in which it is normal, perhaps even "tough" or "cool," to ride unhelmeted. The analogy with taking vaccines and complying with social distancing in times of an epidemic is obvious. The vaccine shot that you receive reduces the risk of contracting the disease by a small amount for each of the persons who could potentially be infected by you, and the sum of all these small amounts matters morally. Similarly, the helmet on your own head encourages others to do the same, thereby contributing to making wearing a helmet the normal and expected thing to do. Social contagion is just as real, just as unavoidable, and just as morally important, as infectious contagion.

For both social and infectious contagion, what matters is the sum of a large number of small effects. But in both cases, we can see from the sums that these effects are real. Countries with high vaccination rates are almost unaffected by diseases that have devastating effects in unprotected populations. And in countries like Sweden, where young people may never have seen an unhelmeted motorcyclist, the question of riding helmetless does not even arise. In neither case does the fact that each of the many small individual effects cannot be perceived make them morally irrelevant (Hansson 1999). Therefore, a motorcyclist who refrains from wearing a helmet, claiming that this concerns no one but herself, makes the same mistake as the vaccine refuser and the organizer of crowds in a pandemic, namely, the Bolsonaro fallacy.

Putting this more positively, the fact that we are so much influenced by each other is a reason to put more weight on the old but sometimes forgotten moral value – and moral imperative – of setting good rather than bad examples. Asking a person to use a helmet, or to fasten her seat belt, is not a meddlesome intrusion into her private life. It is an invitation to take part in a joint effort to create or maintain a custom that protects us all. It is for obvious reasons better if such customs can be achieved and preserved without the force of law. This is how ice hockey helmets were introduced. However, if this does not work, then we should not forget what we have governments and laws for. We certainly need them when children contract potentially life-threatening diseases due to adults' vaccine refusal, or when older bikers inspire teenagers to risk their lives by riding without a helmet.

## Driver Assistance and Self-driving Cars

Vehicle technology is in a process of increasing automation. Modern cars have a whole set of driver assistance functions that reduce the risk or the severity of accidents: anti-lock braking systems, cruise control, lane departure warning systems,

driver attention monitors, collision warning and automatic brake systems, etc. This began with systems that merely warn the driver, but increasingly, functions are introduced that take control of the car if the driver does not heed a serious warning, for instance, automatic braking to avoid a head-on collision or mitigate its effects. There does not seem to have been much opposition to these systems. This may be because they have been constructed not to reduce the driver's feeling of control in normal driving.

However, it does not follow from these experiences that fully automatic, self-driving cars will easily be accepted. As it now seems, autonomous vehicles will not be introduced, at least not on a large scale, until and unless they are far much safer than manually driven cars. We tend to be less willing to accept machine errors than errors made by human beings. Our tolerance for safety-critical malfunctions in cars is already low. Vehicles are recalled for repair even of faults that have a comparatively low probability of giving rise to injuries or fatalities. Occasionally, car manufacturers have refrained from recalls that they deemed too costly in relation to the gains in safety, but that led to strong negative reactions from the public (Smith 2017). Some authors have worried that a large number of avoidable fatalities and severe injuries will ensue if the introduction of autonomous vehicles is delayed by safety requirements that are inordinately high as compared to those applied to conventional vehicles (Brooks 2017; Hicks 2018, p. 67).

To the extent that automated vehicles run a smaller risk of crashes than humanly driven vehicles, there may be a movement towards relaxing safety measures such as the use of seat belts. Already in 2006, a year when more than 300 persons were killed in Swedish road traffic and around 9000 were injured, a Swedish physician (!) asked: "Do we even need the seat belts any more, now that the cars have become better?" (Eberhard 2006, p. 321) The answer to that question depends, of course, on your attitude to human death and suffering. Needless to say, less safe behavior by car occupants can at least partly offset the gains in safety obtainable with the new technology. Since no driver is needed, children can presumably travel alone in a self-driving car, and so can a company of severely inebriated persons. This can have consequences for occupant behavior. This means that questions about safety culture and how we influence each other's behavior will continue to be pertinent in automated vehicles.

In a traffic system with automated vehicles that are much safer than human-driven cars, questions may arise about the legitimacy of the latter. Proposals have already been made to prohibit human driving on at least parts of the road net (Nyholm and Smids 2020). This can surely meet with ardent resistance, since driving is a major source of pleasure and pride for many people (Edensor 2004; Moor 2016; Borenstein et al. 2019, p. 392). However, such conflicts can possibly be avoided if future human-driven cars are equipped with advanced assistive technology, including an emergency autopilot function that takes over in extreme cases when this is necessary to avoid a crash.

Some authors have maintained that human moral agency is in some way stymied by technology that reduces the risk of injuries or other adverse effects of human failures. These authors call such technology "techno-regulation" (Brownsword

2005) or "technology paternalism" (Spiekermann and Pallas 2006). Examples that have been used include automated entrance barriers at railway and metro stations (to prevent fare dodging) (Yeung 2011, p. 22), alcohol interlocks (Spiekermann and Pallas 2006, p. 10), and – of course – self-driving cars (Brownsword 2005, pp. 16 and 18). Roger Brownsword maintains that these technologies have a problem in common:

> When regulators design people, products, or places in such a way that regulatees have no choice but to act in whatever way is judged to be appropriate, we cannot meaningfully speak about them being morally responsible agents, to be credited with acts that respect others and to be blamed where they fall short of moral requirements. (Brownsword 2005, p. 18)

Similarly, Karen Yeung writes:

> Although an isolated techno-regulatory measure may appear benign, the *cumulative* effect of techno-regulatory action by a range of regulators acting independently across a variety of social contexts might ultimately lead to such a significant erosion of moral freedom that meaningful moral agency can no longer be sustained. (Yeung 2011, p. 27)

These arguments are based on an extremely one-sided selection of technological innovations. All through human history, technology and social arrangements have shifted in ways that have both created and closed down options for moral decision-making. New weapons have given rise to moral issues on when they could legitimately be used. Would it have been a disadvantage if weapons of mass destruction were not available, so that no one could exercise their moral agency by deciding (hopefully) not to use them? New means of food production have reduced the burden of deciding how to distribute food in times of famine. Would it have been better if there was even more scarcity of food so that more people could flourish as moral agents by distributing it rightfully? Technological devices, such as fences, locks, safes, and alarm systems have made burglary next to impossible in some places. Would it be preferable to ensure that all jewelry shops and bank vaults (and your home) have doors that are easy to force open, so that prospective burglars have ample opportunity to make virtuous decisions not to break in?

Arguably, these examples are sufficient to show the absurdity of valuing options for moral deliberation higher than the avoidance of human suffering. But it may nevertheless be of some interest to ask: Are these authors right in contending that modern technology, as a general tendency, removes moral choices and thereby moral agency from us humans? That is extremely difficult to determine, since examples pointing in both directions are easily found. Notably, the Internet as well as social media have given rise to a host of new moral issues that concern our private lives, information on climate change has put air travel in a new moral perspective, and environmental concerns have added moral aspects to our choices of foodstuff and other consumer products. This may very well add up to outweigh a potential reduction in the need for moral choices in road traffic.

## In Conclusion: Vision Zero

Vision Zero has not been much mentioned in this chapter, but in a sense it has been all about Vision Zero. Questions about personal freedom and how we influence each other's behavior are central for the choice of a traffic safety strategy, and many of the differences between Vision Zero and previous road safety policies are closely connected with the issues we have penetrated. In at least three respects, the conclusions we have arrived at can serve as moral underpinnings of Vision Zero.

First, we found that some of the freedoms that were deeply cherished in former times, such as the freedoms to have "a little dirt" in your water pipes, to hire workers to work in mines with incessant rockfalls, or to drive drunk, are now considered by almost everyone as weird wishes, rather than worthy objects of liberty. This historical perspective shows that conceptions of what is normal and desirable can change. Vision Zero aims at one fundamental such change: Conditions and behaviors that lead to deaths and serious injuries in road traffic should no longer be seen as normal, or even acceptable.

Secondly, we noted that many habits and actions that are commonly conceived as "self-harming" are in fact the result of a combination of self-harming and other-harming actions. The smoker's own decision is only part of the causal history behind her unhealthy habit. Another, in fact quite crucial, part is the tobacco industry's ruthless promotion of a death-bringing product. Similarly, the motorist who speeds on the expressway is certainly to blame, but the reason why it is at all possible for him to do so is that the car manufacturer sells vehicles that can be driven at illegal speeds, and that the legislature allows this. This analysis shows that we need to consider the systemic causes behind events that have traditionally been ascribed exclusively to individual road users. This is one of the methodological cornerstones of Vision Zero.

Thirdly, we saw that traffic behavior is subject to strong effects of social contagion. For instance, people tend to wear seat belts and helmets if others do so, and to drive slower if others refrain from speeding. Therefore, safe traffic behavior is important not only for the direct effects of one's own actions, but also as a contribution to the creation of a safety culture that protects us all. This is the major reason why driving a motorcycle without a helmet is not a "purely self-harming" action; it unavoidably sets a negative example that contributes to enticing other bikers to do the same. This is a communal and socially inclusive perspective on traffic safety that has not had a large role in Vision Zero, but it can arguably contribute constructively to its implementation.

## Cross-References

▶ Arguments Against Vision Zero: A Literature Review

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