

Philosophical Considerations on Vision Zero

Paweł Bany*

Received March 2013

Abstract

Vision Zero is a radical traffic safety policy adopted by Swedish Parliament in 1997 and afterwards – in more or less complete manner – in many other countries in the world. From the very beginning it has attracted considerable interest but has given rise to some essential controversies as well. Claes Tingvall, who is the originator and promoter of Vision Zero, consistently describes it as a kind of philosophy, emphasizing the significance of the ethical imperatives it is founded on. The purpose of this paper is to provide a critical analysis of the main philosophical assumptions of Vision Zero, including these that have not been explicitly uttered but they are presupposed by their propagators. In this text the most important doubts and objections raised by the people skeptical about the above-mentioned Vision have been taken into account.

1. Introduction

The main goal of this paper is to provide a critical analysis of the fundamental philosophical assumptions behind Vision Zero, which a road traffic safety policy adopted in Sweden in 1997 and since then – in more or less complete manner – in many other countries in the world (including the EU). This strategy has attracted considerable interest and influenced both international road safety thinking and actions. Claes Tingvall, who is the main initiator of Vision Zero, says (2012): ‘After a period of a rather lukewarm attitude to Vision Zero across the globe, many jurisdictions have now Vision Zero (or safe System or Toward Zero) as the guiding policy /.../ Vision Zero is now really a global policy, and not only an issue for the national policies, but also for the private sector.’

As a result of its propagation and implementation, a serious ethical debate concerning the goal of traffic safety has been initiated (mainly in Scandinavia). The new policy states

* Motor Transport Institute, Scientific Information and Publications Section, 80 Jagiellonska St., 03-301, Warsaw, Poland

that the long-term goal for traffic safety should be zero deaths and serious accidents. Tingvall and Haworth (1999, 13) emphasize that it is to be treated as a kind of philosophy, namely ‘a philosophy of road safety’. Simultaneously, they (1999, 10) underline that it should not be understood as a figure because ‘it is a shift in philosophy’ or a ‘mindset’. It is a paradigm revolution in road safety work which challenges traditional ways of thinking about it. Vision Zero is both an attitude to life (the unacceptability in principle of allowing people to die in traffic) and a strategy for designing a safe road transport system (Safe Traffic: Vision Zero on the Move, 2006). However, one must be aware of the fact that not all philosophical underpinnings behind Vision Zero have been explicitly expressed so far. Some of them still remain hidden and have to be brought to light in order to become proper objects of consideration. Machata (2005) warns that ‘Vision Zero is a slogan as easy to grasp as it is easy to misinterpret – and it possibly fails to unveil the comprehensive concept behind.’

Tingvall and Haworth (1999, 1) claim that Vision Zero is an expression of the fundamental ethical imperative: ‘It can never be ethically acceptable that people are killed or seriously injured when moving within the road transport system.’ The same imperative is sometimes expressed in much more evocative way as by Elvik (1999): ‘While humans are fallible and make mistakes in using the road system, these mistakes should not carry the death penalty’. The ethical assumption on which Vision Zero is based can be interpreted as approval of an objective for maximizing human life saving in general (Elvik, 1999). The adoption of Vision Zero has involved a shift of focus concerning the object of traffic safety policy, from preventing accidents to preventing fatalities and serious injuries (Rosencrantz, Edvardsson and Hansson, 2007, 566). Tingvall is convinced that the system designers should be guided by a special set of ‘ethical rules’. He mentions two such norms. The first one is tantamount to affirmation that ‘Life and health can never be exchanged for other benefits within the society’, whereas the second rule states that the occurrence of every severe road accident should oblige the authorities and road designers to conduct a deep analysis of its causes and to implement special policies and procedures that will minimize the possibility of its occurrence in the future. As Tingvall and Haworth (1999, 2) put it: ‘Whenever someone is killed or seriously injured, necessary steps must be taken to avoid a similar event.’

2. The most Fundamental Assumptions behind Vision Zero

The most important philosophical assumptions on which Vision Zero is based may be reduced to five principles. They are connected to such philosophical domains as anthropology, ethics, axiology, and political philosophy. As far as anthropology is concerned, one may identify a very important assumption relating to the inherent limitations of human nature. These limitations may be twofold. The first group is connected with the way people make their decisions and act in the world. From this point of view man appears as a fallible being. It means that despite our best knowledge and best

intentions we quite often make mistakes. The humble recognition of this fact leads one to formulating the moral postulate which states that we ought to tolerate human errors. Tingvall (2009, 10) claims that ‘The system should tolerate mistakes /.../ you should design the system on the basis of human failure.’ He also underlines (2010, 7) that almost every crash starts with a human act and ‘there is no example in history of designing something based on the human doing the right thing.’ Hence the road transport system should forgive human error. It is exactly in this context that we should comprehend such ‘anthropomorphic’ concepts as that of forgiving road and forgiving roadside, which play so vital role in Vision Zero philosophy. The second limitation of human nature is connected to physical fragility of man. Here the postulate of tolerance applies as well, although in a slightly different sense. It is founded on the obvious assertion that ‘the body has crash tolerance limits’ (Tingvall, 2009, 10). In other words, the range of tolerable limits is defined by human physical resistance. Hence we should reduce the exposure to mechanical force (kinetic energy) by modifying it to fit into the human tolerance (Tingvall and Haworth, 1999, 3).

The second essential assumption behind Vision Zero is an ethical one. It suggests the necessity of changing the domineering pattern of responsibility. Tingvall highlights that—in contrast to the traditional approach which assumes that in case of severe accident it is the road user who we should blame for it – Vision Zero is founded on the notion of collective or divided responsibility that should be shared by the system designers and road users together (2012; Tingvall and Haworth, 1999, 1). What is more, the responsibility of the system designers seems to be even greater than the road users because the latter are only obliged to abide by the rules that have been defined by the former. Nihlén Fahlquist (2006, 1116) emphasizes that the result of this change in focus is that instead of merely attributing responsibility to the agent who initiated the undesirable event we should also consider assigning responsibility to the agent who is able to change the underlying conditions. In this way what is usually considered to be matter of secondary importance from a point of view of causality appears to be a substantial factor in the process of ascribing responsibility. Thus the system designers are held responsible for traffic safety even in all these cases where individual road users ignore traffic rules and make blatant mistakes. Lind and Schmidt (2000, 22, as cited in Nihlén Fahlquist 2006, 1116) refer that before Vision Zero became Sweden’s road safety goal, it was often pointed out that 90 percent of all accidents are caused by individual road-users. In contrast, it is now often emphasized that 90 percent of all fatalities could have been prevented if those who design the system (in particular those involved in road maintenance and vehicle manufactures) had acted in a different way. It means that the system designers have to take effective measures if individuals fail to take responsibility. Nihlén Fahlquist (2009, 17) is convinced that system designers ought to be held responsible for the circumstances in which individual choice is made, while at the same time road users should be held responsible for the decisions they make in these specific circumstances. She notes (2009, 8) that the adoption of Vision Zero as a long-term goal for traffic safety entailed a shift of focus from the backward-looking responsibility of the individual road users to the forward-looking responsibility of the system designers. It is obvious that the system designers do not cause

the accident in a strict sense of the word, but – at the same time - they are responsible to make sure that the system is changed in such a way that helps efficiently prevent similar collisions in the future. Backward-looking responsibility ascriptions are related to the bygone positive deeds and acts of abandonment (we analyze the rationality of the alternatives that somebody had in the past), whereas forward-looking responsibility ascriptions are related to our prospective attitudes (we analyze the rationality of the alternatives that somebody has at present). Nihlén Fahlquist (2009, 14) claims that clear distinguishing between these two kinds of responsibility would make the arguments more feasible to assess. And otherwise, if these kinds of responsibility are merged, this has negative consequences from the point of view of morality and that of efficiency as well (Nihlén Fahlquist, 2009, 8).

The third important assumption behind Vision Zero is connected to the axiological order and the principle of humanitarianism that does not allow harming others. From this perspective human life and health are perceived as the highest and non-negotiable values. Every death that could have been prevented is something totally unacceptable from a moral point of view. To put it differently, serious injuries and deaths on the road must not be treated as a necessary evil to be accepted in the interests of personal mobility. Here we face a manifest conflict of values: the right to safety is assumed to be more important than the right to mobility. As Tingvall and Haworth (1999, 2) put it, mobility should follow from safety and cannot be obtained at the expense of safety (thus mobility becomes a function of safety, not vice versa). Tingvall (2012) strongly underlines that this policy is based on human rather than economical values. The consequence of this assumption is total rejection of a cost-benefit analysis perspective (which implicitly accepts that serious injuries and fatalities are the cost of mobility).

The fourth characteristic of Vision Zero is its radicalism which manifests itself in an extreme all-or-nothing attitude and in using categorical and authoritative language. Such expressions as ‘no trade-off’ or ‘zero tolerance’ may serve here as typical examples. When Tingvall (2010) talks about the necessity of wearing seat belts, he says: ‘We need 100% compliance, otherwise the system, breaks down. /.../ We cannot be happy with 96%. Forget it. You haven’t reached an acceptable or necessary level.’ Tingvall’s other statements concerning the necessity of exclusion of motorcycles are particularly striking (as cited in Farrell, 2010): ‘We must prevent the recruiting of new motorcyclists. In long-term thinking, I regret to say that motorcycles must go. /.../ There is no room for motorcycles in Vision Zero. /.../ It will never function to combine motorcycles with our high ambitions of road safety. /.../ If you want to make a motorcycle 100 per cent safe, it has to no longer be a motorcycle.’ Referring to the mentioned extremism of Vision Zero, Rosencrantz et al. (2007, 561) note that ‘a categorical unwillingness to make compromises may itself be considered irrational’. There is an interesting dialectics and inward tension within the concept of tolerance in the Swedish strategy. On the one hand, it calls for tolerance for human fallibility, but on the other hand, it claims that any violations should not be tolerated at all. Strictly speaking, ‘Errors are absorbed – violation are not accepted at all.’ (Tingvall, 2005, 11). This distinction between human errors and violations is something fundamental. The former may be predicted and managed (either by eliminating them, or by

making sure that they can be absorbed by the road transport system), but violations (such as intoxication, non-use of seat belts and exceeding the speed limit) must be treated much more seriously. We cannot simply predict and manage them, because their number is virtually infinite. Tingvall (2012) is very clear about it: ‘Does Vision Zero mean Zero Tolerance for traffic violations like drink driving or speeding? That is the other side of the coin. We will provide a safer road system but we also place a higher demand on road users.’ Interestingly enough, in Denmark the goals of Vision Zero have been even more extensive, according to the slogan claiming that ‘every accident is one too many’ (as cited in Nihlén Fahlquist, 2006, 1113).

The fifth assumption of Vision Zero is the idea of human and civic rights. It should be noted that this notion is one of the most important premises of the political philosophy of Enlightenment. It is meaningful that Tingvall (2005) refers in this context to the concept of social contract (speaking about a social contract between the citizen and the stakeholders) which is also integrally connected to the above-mentioned intellectual tradition. The best known expression of it is The Tylosänd Declaration of Citizen’s Right to Road Traffic Safety in which the basic rights for road users were drafted and accepted. This declaration was announced during the Tylosänd Road Safety Conference – Changing Lanes which was held from 3rd to 7th September, 2007. These rights serve to protect all road users from the loss of life and health caused by road traffic. They rest on the general assumption that no road user wishes to harm either himself or herself or any other fellow human being, whatever the circumstances under which they are using the roads. Thus the right to safety is perceived as a basic human right.

The Tylosänd Declaration comprises of five short articles. The first article states that ‘Everyone has the right to use roads and streets without threats to life or health.’ It assumes that all road users should mutually respect their right to safety. It means that roads and streets ought to be designed in such a way that they could protect all types of road users. It refers to the maintenance of safe road infrastructure as well. The second article states that ‘Everyone has the right to safe and sustainable mobility: safety and sustainability in road transport should complement each other.’ It means that mobility should never be treated as absolute and unconditional value in itself. It is one of the most important manifestations of personal freedom, to be sure, but it is considered to be something positive only and only if it is kept in check by higher values (such as safety). The third article states: ‘Everyone has the right to use the road transport system without unintentionally imposing any threats to life or health on others.’ Elvebakk and Steiro (2009, 961) emphasize that the consequences against which the road users are to be protected must be the result of unconscious erroneous actions (it implies that a considerable number of accidents do not fall under the scope of this part of the vision). The fourth article states: ‘Everyone has the right to information about safety problems and the level of safety of any component, product, action or service within the road transport system.’ Elvebakk (2005, 18) states that a considerable number of people buying cars know which of them are the safest, or what kinds of safety equipment are most efficient. The fifth article states: ‘Everyone has the right to expect systematic and continuous improvement in safety: any stakeholder within the road transport system has the obligation to undertake corrective actions following the

detection of any safety hazard that can be reduced or removed.’ Since any right to something presupposes that there is somebody who is obliged to satisfy this claim, it should be noted that the above-mentioned Declaration of rights first and foremost obliges the road systems designers to guarantee high safety requirements and standards of the road traffic system.

3. Objections and Doubts concerning Vision Zero

Despite the vast enthusiasm it has generated and still generates, Vision Zero has provoked much controversy as well (Rosencrantz, 2009). The most serious objections against it are to be enumerated below. One should add, that more or less elaborate responses to many of these objections have been formulated, but they will not be presented here because of the presupposed size limits of this paper.

The first objection against Vision Zero concerns its alleged unreality and vagueness (Langeland, 2009). Its opponents admit that this stance is high-minded and profoundly moralistic but, at the same time, they find it as a clear example of wishful thinking. Nihlén Fahlquist (2006, 1113) reports: ‘This goal has been criticized from different perspectives and it has been claimed to be naive, overly ambitious and even unethical.’ Rosencrantz et al. (2007, 560) presents the on-going dispute between Vision Zero partisans and their opponents in the following way: ‘While proponents are accused of being rhetorical, critics are accused of being cynical.’ Some people even suggest that this rhetoric style of argumentation utilized by Vision Zero proponents may be calculated to blank out the flaws and weak points of the whole strategy. Ekelund (1999, as cited in Rosencrantz et al., 2007, 262) claims that Vision Zero was adopted in order to cover up embarrassing lack of political measures that would redress the traffic safety problem.

Another objection is usually raised by the people sharing liberal or libertarian political views. These opponents of Vision Zero accuse it of allowing the restraint of personal freedom and autonomy of individuals. Ekelund (1999, as cited in Rosencrantz et al. 2007, 561) warns that ‘forcing people to be more cautious than they actually want to be is paternalistic, or even dictatorial.’ She accuses Vision Zero for promoting a kind of safety fundamentalism and authoritarianism. This kind of extremism may legitimise drastic actions and restrictions. In this context Vision Zero is perceived as an exemplary hard-paternalistic approach to road safety. Paternalism (the term derived from Latin noun ‘pater’) is an ethical belief that allows limiting a given person’s or group’s autonomy for their own good. It implies acting against their will and without their consent. Such kind of action appears as ethically justified when a somebody in the position of authority is convinced that he is better equipped with the knowledge concerning what is good for the subordinates than they are themselves. The distinction between hard and soft paternalism is explained in a clear way by Feinberg (1986, 12): ‘Hard paternalism will accept as a reason for criminal legislation that it is necessary to protect competent adults, against their will from the harmful consequences even of their fully voluntary choices and undertakings. Soft paternalism holds that the state has the right to prevent self-regarding harmful conduct

/.../ when but only when that conduct is substantially nonvoluntary, or when temporary intervention is necessary to establish whether it is voluntary or not.’ Elvebakk (2005, 19) underlines that the people opting for soft paternalism think that drivers should be constrained so not to harm other road users, but – at the same time – they will not support enforcing the use of safety equipment or other measures taken to prevent people from consequences of their actions. However, these restrictions might be quite easily justified with reference to the costs incurred for society through harming oneself.

Moreover, it has been also argued that Vision Zero is not as ethical approach as it would seem to be at first glance. Elvebakk asks (2005, i), ‘/.../ does Vision Zero the approach to road safety stand out as necessarily more ethical than the alternatives?’ She describes Vision Zero as ‘a consequentialist moral standpoint’ because it focuses on end-states.‘ Elvik (1999) has shown it can be counterproductive in terms of overall morality and that the costs of actually preventing all serious traffic accidents would probably be so great as to lead to higher mortality in other fields (such as hospitals). From a utilitarian point of view, this should be a definitive argument against the vision. As Elvebakk (2005, 24) points out a utilitarian would have to conclude that rather than being a more ethical approach to road safety Vision Zero is a less ethically sound basis for policy. It would follow that we should invest public money in saving people in road traffic insofar as it does not interfere with saving lives in other areas (Nihlén Fahlquist, 2007, 21). Andersson and Pettersson (2008, 3-4) find it this situation clearly unsound: ‘And the question why fatalities due to road traffic shall be prioritized in policy and budget allocations, before fatalities due to other causes to a large extent lacks an explanation. /.../ But despite these problems the Vision Zero remains in place, seemingly impervious to both criticism and failure to achieve its goals.’

Furthermore, the objection of drawing bad analogy has been raised. The proponents of Vision Zero take inspiration from other areas (e.g. occupational health and safety) (Tingvall, 2010). They prefer to compare road traffic accidents to such areas as workplace or rail and air traffic accidents where fatalities and severe injuries are not deemed acceptable (pointing out that a similar number of fatalities there would have started inevitably an social outcry, major investigations and reorganization of routines). Elvebakk (2005, 25) notes it high safety demands may apply to the domains which are highly professionalized, closed systems, with high barriers to entry and clearly defined objectives, whereas they do not apply to the road traffic system (which has low barriers to entry and its objectives are to a large extent defined by its users). Allsop (2005) states that: ‘Use of the roads /.../ does not as a closed system in which everything can be defined as someone’s contractual responsibility, but as part of everyone’s day-to-day lives, which they expect to be largely free to lead.’ It seems that Vision Zero proponents might just as well compare it to other areas where ‘unnatural deaths’ appear (people committing suicides, consumption of alcohol and narcotics etc.), as Elvebakk (2005, 25) suggests.

Next, it has been argued that there are undoubtedly other values that safety would have to be weight against. Vision Zero suggests that avoiding serious injuries and deaths is what people value most. This does not concern minor injuries and material damage (Hokstad and Vatn, 2008, 1442). Despite predominance of safety in Vision Zero philosophy there

are still people who voluntarily and deliberately admit some level of risk in the activities they take up, which seems to prove the fact that some level of risk is accepted by them as an integral part of the activity. Elvebakk (2005, 25) states: 'An underlying premise for the present discourse as well as state of affairs is that a risk-free society is neither conceivable nor desirable'. This conviction is also expressed by Richard Allsop (2005,15), who in spite of endorsing the main postulates of Vision Zero policy, discerns some tendencies present in it that may be potentially dangerous for our humanity. He articulated his doubts in the following way: 'And yet it should be asked: is the ethical platform in the Vision Zero for this agenda sound, and if not, is there an alternative, and does it matter? In my view the answers are: no, for all the strength of many of its planks, the platform is not completely sound; yes, there is an alternative; and yes, it does matter.' Allsop admits that safety is a very important value, but at the same time he claims that it by no means should be treated as the highest of all human values. 'Safety is for living: living is much more than just keeping safe'. Risk of premature death, injury or illness have always been an integral part of human life. Such kind of risk does not make it unacceptable in the societies of the West where many people voluntarily and consciously engage in the activities involving considerable level of risk (e.g. fire service personnel, medical staff, fishermen, miners, climbers etc.). The value of safety when treated as something absolute is opposed to deep-rooted human desire for living life to the fullest. Exaggerated risk aversion threatens to become life-denying. Hence we should distance our life-enhancing efforts for road safety from some other people's life denying attempts to safeguard everyone against every slightest risk regardless of cost and effectiveness.

What is more, in the course of examining the assumptions of Vision Zero, one may notice that its proponents suggest that it is founded on a number of ethical imperatives, whereas the situation seems to be quite converse, i.e. if somebody adopts the premises of this vision, then a set of particular ethical imperatives has to appear. As Elvebakk (2005, 26) states: 'Rather than Vision Zero following from its ethical arguments, the ethical arguments follow from adopting Vision Zero.' This being so, it follows that the theory supporting Vision Zero begs the question and appears to be founded on a compromising logical fallacy traditionally called *petitio principii*. It consists in arguing for a conclusion that has already been assumed in the premise.

Additionally, it may be argued that the absolute primacy of safety must lead to radical limitation of freedom of movement and human autonomy (Nihlén Fahlquist, 2009). Many restrictions demanded by Vision Zero are connected to intolerable privacy infringement because people will be exposed to surveillance cameras and other kinds of control when driving (Nihlén Fahlquist, 2009). Lomasky (1997, 22) claims that 'automobility' complements human autonomy and that 'the automobiles serve as quintessential bastion of privacy.

In addition, there is striking inconsistency in the conduct of the politicians who try to implement Vision Zero. They propose measures which include imposing stricter punishments, lowering speed limits and changing drivers' attitudes. Interestingly enough, all these measures primarily focus on individual road-users, rather than on system design and implementation as such. While the original intention was to cause a shift of

responsibility from individual drivers to those who design and implement the transport system, it turns out that the responsibility of the latter includes checking if the responsibilities of the former are taken (Rosencrantz et al. 2007, 566). What is more, it has been argued that while transferring responsibility to the road system designers we should determine concrete sanctions. But at present, we may speak at best about moral responsibility and not the responsibility with legal consequences attached to it. 'If ascribing responsibility to different agents is not likely to contribute to the solution of the problem unless they have well-defined consequences for the responsible agents, should we discuss responsibility without determining the consequences of not taking responsibility? Is it just rhetoric to talk about the responsibility of the system designers if there are no substantial consequences for failing to take responsibility. It could be argued that the fact that Vision Zero is not legally binding makes it a <<toothless tiger>>.' (Nihlén Fahlquist, 2006, 1117). It seems logical that the more strategic one's position is, the higher one's responsibility should be (Nihlén Fahlquist, 2006, 1116). What is worse, as Ekelund notices (1999, as cited in Nihlén Fahlquist, 2006, 1117), when underlining the responsibility of social actors there is a real risk that people may interpret it as reducing their individual responsibility. Therefore too much emphasis on the responsibility of system designers may lead to reckless behaviour by road users. Under these circumstances people would not accept personal responsibility but instead incessantly they would blame the system designers for every problem. Furthermore, such distribution of responsibility would contradict the basic demands of justice, because they who take personal responsibility would have to pay for those who do not (Nihlén Fahlquist, 2006, 1116). Likewise, several groups of road users are much more vulnerable and risk prone than others (e.g. bicyclists or pedestrians). In this situation the question arises 'who should be saved and whether the risk proneness and vulnerability of different groups of road users should be taken into account in traffic safety policy' (Nihlén Fahlquist, 2007, 13).

Besides, admitting the fact that Vision Zero boosts considerable amount of enthusiasm and raise high hopes for radical improvement of road traffic safety, one can point out that the real outcome does not meet these inflated expectations. So far Vision Zero has not kept its promises and its quantitative interim target mandated by Swedish Parliament (i.e. a 50% reduction in accident fatalities within the decade 1997-2007) has not been met (Breen, Howard, and Bliss, 2008). According to this line of reasoning, it would turn out to be an ineffective policy. As Harkness (2005) notes, 'Sweden's rate of improvement was better before it adopted Vision Zero (29 per cent in the six years preceding the programme as opposed to just three per cent in the six years following its introduction).'

Furthermore, drawing certain consequences of Vision Zero to their ultimate limits may lead to absurd. When assuming the total subjugation of the value of mobility to the value of safety, it may imply that the fastest and most effective way for achieving the goals of this policy would be reducing road traffic to zero because in this case there would be no victims at all. In this context Harkness (2005) refers to John Whitelegg: 'He cites to me his favourite example of taking statistical epidemiology too far - that road casualties could be slashed, probably halved, by locking up all children until the age of 21. Nobody is proposing that we entirely abandon the social freedoms that road transport brings.'

Vision Zero supporters have a strong propensity for presenting the Swedish road safety policy as the best or even the only one possible ethical approach to the mentioned issue. Thus it is implied that Vision Zero policy is intrinsically morally superior to other ones (Elvebakk, 2005, 18). Parenthetically, one can notice a thought-provoking shift, namely initially the proponents of Vision Zero raised an objection that the traditional philosophy of road safety tended to illegitimately present itself as the only possible solution of the mentioned problem, then – having earned considerable recognition of that Vision – they, in turn, have begun to suggest that there is no alternative to it. Andersson and Pettersson (2008, 3) note that ‘the alternatives to the Vision Zero are seldom discussed, and then almost inevitably not taken into account by policy makers.’

4. Conclusions

Having analysed the basic assumptions behind Vision Zero and the doubts raised by its opponents, three general conclusions may be drawn. Firstly, the Swedish Vision is much more than a traffic safety policy or strategy – being first and foremost a specific mindset, a moral attitude to life and some kind of philosophy. It should be also noted that similarly to other philosophical positions, it represents a systemic approach. Secondly, the most important principles that Vision Zero is based on are connected to such specific philosophical domains as anthropology, ethics, axiology, and political philosophy. Thirdly, despite all positive and inspiring facets of the above-mentioned vision, one should be fully aware of the existence of significant objections that are raised against it. Such critical awareness cannot be overestimated because several of these charges may help indicate the possible vulnerable points and inconsistencies latent in this multidimensional strategy of road traffic safety. In the final analysis, allowing some kind of sane criticism may turn out to be useful in the process of improving Vision Zero and in efficient cleansing it of any superfluous ideological interpolations.

References

1. Allsop R.: A long way – but not all the way. Response to the 7th ETSC Lecture. European Transport Safety Council, Brussels: http://www.etsc.eu/documents/7th_Lecture_vision_zero.pdf, 2005.
2. Andersson F., Pettersson T.: The Vision Thing: Actors, Decision-Making and Lock-In Effects in Swedish Road Safety Policy since the 1990s, *Umeå Papers in Economic History*, 34, 1-16, 2008.
3. Breen J., Howard E., Bliss T.: Independent Review of Road Safety in Sweden, Jeanne Breen Consulting, Eric Howard and Associates, and the World Bank, Swedish Roads Administration: http://publikationswebbutik.vv.se/upload/4314/2008_109_an_independent_review_of_road_safety_in_sweden.pdf, 2008.
4. Elvebakk B., Steiro T.: First principles, second hand: Perceptions and Interpretations of Vision Zero in Norway, *Safety Science*, 47, 958-966, 2009.
5. Elvebakk B.: Ethics and Transport Safety Policy. The Institute of Transport Economics (TØI), Oslo: <https://www.toi.no/getfile.php/Publikasjoner/T%D8I%20rapporter/2005/786-2005/rapport.pdf>, 2005.

6. Elvik R.: Can injury prevention efforts go too far? Reflections on some possible implications of Vision Zero for road accident fatalities, *Accident Analysis and Prevention* 31, 265–286, 1999.
7. Farrell S.: Road Safety group adopts policy with ‘no room for motorcycles’, *Motorcycle News*: <http://www.motorcyclenews.com/MCN/News/newsresults/General-news/2010/September/sep1710-road-safety-group-new-policy>, 2010.
8. Feinberg J.: *Harm to Self (The Moral Limits of the Criminal Law)*. vol. 3. Oxford: Oxford University Press, 1986.
9. Harkness T.: There’s more to roads than safety: A transport policy with the sole aim to cut deaths to zero - where’s the vision in that?, *Spiked*: <http://www.spiked-online.com/site/article/635/>, 2005.
10. Hokstad P., Vatn J.: Ethical Dilemmas in Traffic Safety Work. *Safety Science*. 46, 1435-1449, 2008.
11. Langeland T.A.: *Language and Change: an Inter-Organisational Study of the Zero Vision in the Road Safety Campaign* (doctoral thesis), University of Stavanger: http://www.vegvesen.no/_attachment/118000/binary/217671, 2009.
12. Lomaski L. E.: *Autonomy and Automobility*. *The Independent Review*, 2 (1), 5-28, 1997.
13. Machata K.: Response to the 7th ETSC Lecture. European Transport Safety Council, Brussels: http://www.etsc.eu/documents/7th_Lecture_vision_zero.pdf, 2005.
14. Nihlén Fahlquist J.: Responsibility Ascriptions and Vision Zero. *Accident Analysis and Prevention*, 38, 1113–1118, 2006.
15. Nihlén Fahlquist J.: *Moral Responsibility and the Ethics of Traffic Safety* (doctoral thesis), Royal Institute of Technology, Stockholm, 2007.
16. Nihlén Fahlquist J.: Saving Lives in Road Traffic – Ethical Aspects. *Journal of Public Health*, 17, 385–394, 2009.
17. Rosencrantz H., Edvardsson K., Hansson S.O.: Vision Zero – Is it irrational?, *Transportation Research Part A* 41 (6), 559–567, 2007.
18. Rosencrantz H.: *Goal-Setting and the Logic of Transport Policy Decisions* (doctoral thesis), Royal Institute of Technology, Stockholm, 2009.
19. Safe Traffic: Vision Zero on the Move; Vagverket: http://publikationswebbutik.vv.se/upload/1723/88325_safe_traffic_vision_zero_on_the_move.pdf, March 2006.
20. The Tylosänd Declaration of Citizen’s Right to Road Traffic Safety, Swedish Road Administration (Document No. 89044, September 1, 2007): http://publikationswebbutik.vv.se/shopping/ShowItem_2911.aspx, 2007.
21. Tingvall C., Haworth N.: Vision Zero: An ethical approach to safety and mobility, *Papers of the 6th ITE International Conference - Road Safety and Traffic Enforcement: Beyond 2000 Melbourne*: ITE, 1999.
22. Tingvall C.: Europe and its road safety vision – how far to zero? ETCS. 7th European Safety Lecture, European Transport Safety Council, Brussels: http://www.etsc.eu/documents/7th_Lecture_vision_zero.pdf, 2005.
23. Tingvall C.: Road Safety: Sweden’s Vision Zero (interview). Allianz Knowledge Site: http://www.knowledge.allianz.com/mobility/transportation_safety/?451/road-safety-swedens-vision-zero, 2009.
24. Tingvall C.: Thinking beyond Vision Zero (Professor Claes Tingvall discusses the thinking behind Vision Zero with TISPOL media adviser James Luckhurst). *TISPOL News* (The newsletter of the European Traffic Police Network), 3, 5-6, 2010. https://www.tispol.org/system/files/TISPOL%20Newsletter%20-%20September%202010_0.pdf.
25. Tingvall C.: Vision Zero goes global. *Via Nordica Congress 2012* (11-13 June, 2012), Reykjavík: <http://vianordica.congress.is/GetAsset.ashx?id=262>, 2012.
26. Whitelegg J., Haq G.: *Vision Zero: Adopting a Target of Zero for Road Traffic Fatalities and Injuries*, Stockholm Environment Institute, Stockholm, 2006.