

Social forgivingness

Summary

Social forgivingness is a new principle in the updated Sustainable Safety vision. In contrast with the three original principles, social forgiveness focuses on the role played by the road users themselves in preventing crashes and/or minimizing injury. No matter how well-developed the traffic system, some road users will make mistakes or lack certain skills. If other road users take this into account – in other words, are socially forgiving – unsafe situations can be prevented, or the consequences can at least be diminished. It is, as yet, unclear how social forgivingness exactly works in practice. Theory has distinguished between internal, as well as external factors which decide whether a road user is capable of acting in a socially forgiving way, or is willing to do so. Examples of such factors are experience, motivation, driving style and the setting of the traffic task (lay-out, function and use of the traffic system). Further research has to show which behaviour can be considered as socially forgiving and how this occurs in actual practice. This knowledge will make it possible to determine the ways in which socially forgiving behaviour can be encouraged.

Background and content

Two new principles, forgivingness and state awareness, were introduced in the updated Sustainable Safety vision (*Advancing Sustainable Safety*; Wegman & Aarts, 2006), in addition to the three original principles of a sustainably safe traffic system. In the years following, a further definition of these new principles has been developed. Forgivingness involves physical, as well as social forgivingness. Generally speaking, forgivingness makes sure that the consequences of human errors and shortcomings are kept within limits. Physical forgivingness can for instance be observed in safe road shoulders. In the case of social forgivingness, road users themselves can prevent unsafe actions in traffic from resulting in crashes and/or injury. This fact sheet discusses the concept of social forgivingness and its role in safe traffic participation. The factors that decide the extent to which a road user will act in a socially forgiving manner are dealt with as well. Finally, this fact sheet will discuss the correlation with other Sustainable Safety principles and the research necessary for more practical elaboration. For further detailed information see the underlying report by Houtenbos (2009). The SWOV fact sheet [State awareness, risk awareness and calibration](#) discusses the other new principle. All principles are discussed in the SWOV fact sheet [Background of the five Sustainable Safety principles](#).

What is meant by social forgivingness?

Road users will never stop making errors, no matter how well the traffic system has been developed. If other road users take this into account – in other words, if they are socially forgiving – errors can be anticipated and unsafe situations can be prevented. One such example is a cyclist who may be on the brink of taking right of way wrongly. A socially forgiving driver will then slow down. A socially forgiving reaction is actually not only required when a road user makes an error, but, for example, also in a situation in which somebody crosses the road very slowly because of physical disabilities.

Social forgivingness is a relatively new and unfamiliar concept, the definition of which has not been fully determined yet. As yet, SWOV has defined social forgivingness as follows:

The willingness to anticipate on potentially unsafe actions of another road user and to act in such a way that negative consequences of a potentially unsafe action are prevented or at least limited.
(Houtenbos, 2009).

Intuitively, the concept of 'forgiving' also has emotional implications: to forgive and not be aggressive. The definition above does not take this emotional component into consideration. Although emotions may play a role in social forgivingness, eventually it is not relevant whether or not somebody curses or grumbles the moment he gives way to another road user. Moreover, not all social road user behaviour falls under the heading of social forgivingness; according to the definition, the setting should comprise a (potentially) unsafe situation. When in a heavy rain shower a driver slows down for cyclists waiting,

even though he has right of way, we do not define this as socially *forgiving* behaviour, but as *social* behaviour. On balance, this does not constitute a (potentially) unsafe situation.

Why is social forgivingness important to road safety?

Traffic participation is practically inevitable in our society nowadays, but it may occasionally be almost too complex a task for specific groups like children, the elderly, the disabled or novice drivers. Therefore, these groups will regularly need socially forgiving reactions from other, more capable road users. Nevertheless, more capable road users will occasionally make errors too. As unsafe road behaviour is inevitable, it is of the highest importance that road users take each others' shortcomings into account. Socially forgiving behaviour can prevent unsafe actions from resulting into injuries. Broadly speaking, social forgivingness can contribute to a traffic system that is safe and permanently accessible to all road users.

The social aspects of the interaction between road users are also emphasized in the Dutch national campaigns 'Drive with your heart' (Ministry of Transport and Public Works, 2007) and 'Sorry, small effort, great gesture' (Dutch Traffic Safety Association, 2007). These campaigns are intended to make road users aware of their own responsibilities and of the options in reducing unsafe traffic situations, irritation and aggression in traffic situations by means of their own behaviour.

When will a road user act with social forgivingness?

It is as yet unclear in what way social forgivingness works in actual practice, especially because so far the concept of social forgivingness in road user behaviour has not been explored. For this reason, SWOV conducted preliminary research into psychological literature (Houtenbos, 2009). The objective was to distil those factors from the theory that may possibly determine how and to what extent somebody will act with social forgivingness. After all, only when we know how socially forgiving behaviour comes into being, we will have a lead for encouraging this required behaviour.

Houtenbos distinguishes between internal and external factors that are expected to determine socially forgiving behaviour. Internal factors are defined as 'cognitive' and 'motivational' factors. Cognitive factors influence *capability* and motivational factors have an effect on *willingness*. Whether somebody is *capable of acting and/or willing to act* with social forgivingness therefore depends on internal factors, among other things. However, external factors also have an effect on capability and willingness. One external factor defined by Houtenbos is the *setting* of the traffic task. This setting comprises the design and function of the traffic system, as well as its use. We may, for instance, think of the way a road has been laid out, the local traffic rules, but also the amount of traffic at a particular moment and the direction from which specific road users approach.

The various types of factors will be discussed separately below, even though they cannot always be considered independently. In the end, a combination of various internal and external factors will determine whether a driver will act with social forgivingness.

Which internal factors determine whether a driver will act with social forgivingness?

It is assumed that the following internal factors are significant for drivers to be *capable of acting* with social forgivingness. The road user is therefore required to:

1. have the correct expectations of the situations he is in;
2. be capable of assessing the intentions of other road users correctly;
3. have the capacity to adapt his own behaviour.

In order to be able to anticipate a traffic situation accurately, a driver should be capable of assessing a (potentially) unsafe situation correctly and also have sufficient capacity to react with social forgivingness. The more one is capable of assessing the traffic situation and the other road users' intentions correctly, the higher the chances that a socially forgiving reaction is concluded successfully and that the situation ends safely. All three factors are directly related to experience. Experienced drivers will have less difficulty in executing their traffic task, so that they are better capable of anticipating other road users' behaviour and, subsequently, acting with social forgivingness.

With respect to the *willingness* to act with social forgivingness, we can first distinguish between a general and a more specific willingness. Psychologically speaking, the road user's general willingness is called a trait: a permanent personality characteristic. A road user's specific willingness is determined by his state: a temporary psychological condition. It is assumed that it is difficult to influence people's

general willingness to act with forgivingness, but that it is possible to encourage their specific willingness. In order to be *willing* to act with social forgivingness, the following internal factors seem to be particularly significant:

1. the interpretation of the other road users' unsafe behaviour;
2. the degree in which road users are motivated to cooperate with others;
3. considering socially forgiving behaviour as the 'standard'.

The first factor implies, for example, that we could either assume that a road user is a bad driver, or that we take it that he has simply made an error due to the busy traffic situation. It also plays a role to what extent we 'feel like' giving way to another road user (the second factor), so that traffic will flow more smoothly and safely. Thirdly, it will make a difference whether socially forgiving behaviour is perceived as the prevailing standard, or whether more aggressive behaviour is considered the standard.

There are also internal factors that affect both 'capability' and 'willingness'. Examples are one's individual driving style and the ability to take different perspectives. The latter is defined as the capability to put oneself into another person's position and to understand the way in which this person will react in the specific situation. The more a driver is capable of doing this and has insight in other drivers' interests and intentions, the better he will be capable of acting with social forgivingness. With respect to the individual driving style, a role is played by the driver's skills, as well as by his personal choices. Research into driving styles tends to categorize them as 'reckless and unobservant', 'insecure' or 'angry and hostile'. A different category of driving style is frequently distinguished in which the emphasis is put on behaviour necessary for acting with social forgivingness (anticipating, polite, patient and careful driving behaviour). However, not much research has been conducted into driving styles in which this positive behaviour plays a specific role.

Which external factors determine whether a driver will act with social forgivingness?

The *setting* of the traffic task also influences the extent to which road users are capable or willing to act with social forgivingness. For example, if a junction offers a very limited view of the intersecting roads, road users *can* only act in a less socially forgiving manner. After all, they have less time available for anticipating the situation. Another example is a traffic light at a busy intersection that is green for only a very limited amount of time. This may result in road users being less *willing* to act in a socially forgiving manner.

There is probably less need to act in a socially forgiving manner when the encounters between road users are more regulated (e.g. by means of traffic lights). On the other hand, in a less well-regulated setting, in which various kinds of encounters may occur, there probably is a greater need for socially forgiving behaviour. This latter situation occurs in many Shared-Space environments (see www.sharedspace.eu). Here, encounters between road users are organized less explicitly by formal rules. It is therefore assumed that road users are encouraged to take each others' interests into account and to feel greater responsibility for their own individual behaviour. Driving behaviour may be less predictable in a less well-regulated environment, which may be compensated for by social forgivingness.

How does social forgivingness relate to other Sustainable Safety principles?

Sustainable Safety is a so-called system approach: safety is not supposed to be dependent on the individual actions of road users, but all the more on the characteristics of the traffic system. The traffic system consists of the components 'people', 'vehicle' and 'road'. A sustainably safe traffic system is designed by taking people as the measure of all things. Particularly the original Sustainable Safety principles - functionality, homogeneity and predictability – ensure that road users eventually act less unsafely so that fewer unsafe situations occur. *Functionality* focuses on the prevention of unintended use of the infrastructure. *Homogeneity* intends to prevent large differences in speed, direction and mass at moderate and high speeds. Finally, *predictability* is directed towards the avoidance of uncertainty. For example, when the layout of the road is recognizable, road users know how fast they are allowed to drive and what behaviour they can expect from other road users. As such, the purpose of these Sustainable Safety principles is to guarantee road safety as early as possible in the chain of system design to final road behaviour. However, if road users still act unsafely, the principle of *forgivingness* can nevertheless make it possible for the situation to be concluded safely. *Physical forgivingness* contributes to this safety by allowing for room for correction by means of the infrastructure (e.g. by constructing hard shoulders) and by preventing or reducing the risk of serious

injury (e.g. by fencing off obstacles). However, an important role is to be played by road users themselves too. If road users notice other people's unsafe actions in time and react to them with *social forgivingness* (by slowing down, for instance), a crash can be prevented at the last minute, or injury can be limited. The *state awareness* principle is also explicitly associated with the human component of the traffic system: the capacity to assess one's individual task capability and to adapt one's traffic participation to it accordingly.

To sum up, infrastructural principles encompass functionality, homogeneity, predictability and physical forgivingness, whereas social forgivingness, in combination with state awareness, is mainly people-oriented. More information about the Sustainable Safety principles can be found in the fact sheet [Background to the five Sustainable Safety Principles](#).

What follow-up research is required?

The principle of social forgivingness has mainly been theoretically elaborated in the preliminary study of Houtenbos (2009) into the psychological background. Further research will have to elucidate how these theoretical insights apply to the actual practice. Various points of departure are possible for follow-up studies. For example, it may be possible to study the influence of experience or motivation on socially forgiving behaviour. Furthermore, a need is also felt for study of driving styles that may influence socially forgiving behaviour. Finally, it can be investigated in which way adaptations of the setting may have an effect on socially forgiving behaviour. Follow-up research by SWOV will initially focus on the latter. More specifically, differences in socially forgiving behaviour in a more or less well-regulated setting will be studied (in a traditional and Shared Space environment respectively). Since socially forgiving behaviour has not been studied earlier, attention will also be paid to issues of methodology, such as the question of which actions can be defined as socially forgiving behaviour.

No direct relations with road safety can be made on the basis of the differences in socially forgiving behaviour. Social forgivingness cannot be separated from the other Sustainable Safety principles in the context of road safety. It cannot be argued that a situation in which road users act more socially forgiving is by definition safer than a situation in which this occurs to a lesser degree. Hence, in a regulated setting (as a result of traffic regulations) it is to be expected that road users do not act with the same social forgivingness. Nevertheless, such a situation may turn out to be as safe as a less well-regulated setting in which, for example, speed is limited and road users are encouraged to make allowances for other road users and to show socially forgiving behaviour in the absence of explicit traffic regulations.

Conclusion

Social forgivingness is a new principle of Sustainable Safety that, in contrast with earlier principles, focuses on the role played by road users themselves in the prevention of crashes. For as yet, it is too soon to arrive at conclusions about the possible safety benefits of this principle. A theoretical exploration has indicated various internal and external factors that may have an effect on the extent in which road users act with social forgivingness, such as experience, motivation, driving style and the setting of the traffic task. Further research has to show which kind of behaviour should be defined as socially forgiving and how this occurs in daily practice. This information will make it possible to determine the ways in which socially forgiving behaviour can be encouraged, while taking the other Sustainable Safety principles into account at the same time.

Publications and sources

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