Professional and Community Acceptance of Automated Traffic Enforcement in France

C. Eyssartier, Fabrice Hamelin

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Eyssartier, C.[1] , Hamelin, F.[2]
[1]Cete Ouest et Université de Nantes ; [2]Université Paris Est-INRETS
email : fabrice.hamelin@inrets.fr

Abstract

The introduction in 2003 of automated checking and sanctioning of traffic offences brought a major change to road safety policy in France. What is required now is an appraisal of how it has been "accepted". The first part looks at the need to deconstruct the notion of social acceptance within the framework of an analysis of public policy and points up the interest of the focus group method in understanding this acceptance. The paper draws on recorded discussions by focus groups in the city of Nantes, in western France, in the second half of 2009 and the first half of 2010. The second part shows that the instrument in question is perceived as destabilising for the identity of the professionals in charge of its functioning. The road users questioned seem less bothered by the automated system, this being explained by greater practical adaptability on their part.

Keywords

Traffic enforcement, automated devices, acceptance, policy analysis, France

Introduction

The appearance of automated speed checking devices in France in 2003 brought about a major change in road safety policy, one most often examined in terms of its effectiveness [1]. However we also need to know how this innovation has been received – "accepted" being the term we shall use here – by those it is intended for. Controversy has arisen in all the countries where this kind of system has been adopted [2], and in those places where automated enforcement was first used the main aspects of acceptability were quickly identified [3]. In France the approach is all the more relevant in that use of automation was extended to red-light violations in 2009, prior to the introduction of automated reading of licence plates and computerised issuing of tickets. Research in this area has been carried out by INRETS [4] in the wake of work by state specialists [5]. The work presented here continues this initial research, but takes a fresh methodological slant [6] involving recourse to focus groups. We carried out four such investigations in late 2009 and early 2010, in Nantes, a medium-sized city in western France. They covered road maintenance and safety operatives, law enforcement personnel, representatives of organised civil society and road-using professionals (see Table 1). This research programme is being jointly carried out by teams from INRETS and CETE de l'Ouest.

The aim of this paper is to underscore the scientific interest of recourse to the notion of acceptance: firstly by presenting the input provided by the methodology – but without excluding the problems encountered – and secondly by indicating the results obtained from the population groups questioned.

Methods

Recourse to the notions of acceptability and acceptance is scientifically relevant in terms of assessing a new road safety policy instrument [7], as long as the notions of "social acceptability/acceptance" are deconstructed and there is recognition of the strong points and limitations of the methods used for pinpointing them. The method adopted here is that of focus groups.

The notions of acceptability and acceptance can be defined very easily. Acceptability has to do with an individual's attitudes and reactions towards the system or device under study without having any actual experience of it; while acceptance, on the contrary, has to do with reactions and attitudes regarding something he has experienced. In the context of this research the first notion applies to automated red-light checks, which were not yet in operation at the time the study was undertaken, and the second to automated speed checking as implemented since 2003.

The French political scientists who make use of these notions see them as the result or the product of a political and/or administrative process of legitimation of action by the authorities [8]. The notions then characterise the narrow limits within which the government can apply its measures with the likelihood of being obeyed [9]. Research undertaken in this area is then perceived as intended to identify these limits and even to hypothesise about measures conducive to acceptance by certain user groups and by public opinion in the broader sense [10]. In response to our colleagues' mistrust of research into acceptance of change in public sector action, our approach initially consisted in establishing the preconditions for scientific use of these notions in analysis of public policy. In addition to the adoption of a rigorous investigative methodology, this solution also involved deconstructing the notions of social acceptability and acceptance, as can be seen in various English-language contributions to the literature [11].

Most research to date focuses on acceptance and acceptability in terms of the groups the policies are aimed at: motorists, citizens, inhabitants and so on – the mass of the population in other words. In this context acceptance and acceptability are the product of a specific instrument, the opinion poll, i.e. a quantitative measure of the reception given the new measure by a predefined public, as expressed in its answers to a questionnaire. The outcome is known as "public acceptance". However, while pertinent in that it allows for distinctions between groups according to age, sex and other variables, this approach is not adequate for analysis of public policy.

Development of an effective programme of action also requires motivating and involving both the actors in charge of such development and those at whom it is aimed. In respect of the public road safety action under study here, then, it is essential to be able to grasp acceptance of the system by the local political authorities ("political acceptance"), the professional groups directly concerned ("professional acceptance") and various organised actors at local level. The notion of "community acceptance" [12] incorporates this last-mentioned dimension, involving an aspect of physical and social togetherness in the sense that the community shares not only the same territory, but also a set of values and interests. We use the term here, although it does not necessarily fit with a specific reality in France; "community" should doubtless be replaced by "local civil society", especially since the research devoted to it involves questioning representatives of local associations that may be of a civic, religious or educational nature [13].

In the literature the professionals questioned are most often road police officers [14], sometimes operatives – engineers, technicians – from relevant administrative bodies and [15], more rarely, members of the judiciary [16]. Gendarmes and traffic police are included in our study, especially since research into the implementation of automated enforcement has highlighted their core role [17]. France has two national law enforcement agencies with similar goals and attributions, including road safety policing, but someone different zones of activity. Today, large conurbations are handled entirely by the Police. Rural and suburban areas, and some smaller cities with populations ranging from 5,000 to 16,000, are handled by the Gendarmerie. We added a group of road infrastructure operatives: their attitudes have been little studied in automation research, even though their work is essential to the installation and upkeep of fixed devices and thus to the quest for long-term effectiveness. The local community, one of the groups addressed by English-language research, is spoken for by representatives of residents and road users' associations. The fourth group comprises people whose profession entails considerable driving – tradesmen, commercial travellers and taxi drivers covering over 100,000 kilometres annually – and who run a greater risk of sanctions than members of the other three groups.

Table 1- The four focus groups set up in Nantes

Focus Groups	Participants
Group 1: Police and gendarmes Date: 10 September 2009 Duration: 2 hours 35 min	FO1 – Major from the road traffic safety division of the Direction Départementale de la Sécurité Publique (DDSP) FO2 – traffic policeman, DDSP FO3 – traffic policeman, DDSP FO4 – Commander freeway squad, Groupement Départemental de la Gendarmerie Nationale (GDGN) FO5 – Motorcycle gendarme, GDGN FO6 – Sergeant, Motorcycle squad - GDGN
Group 2: Operatives Date: 29 June 2009 Duration: 2 hours	AE1 – maintenance and safety operative, Direction Interdépartementale des Routes de l'Ouest (DIRO) AE2 – head of maintenance centre, Loire-Atlantique département AE3 – Team leader, Loire-Atlantique département AE4 – maintenance and safety operative, DIRO
Group 3: Community association representatives Date: 23 November 2009 Duration: 2 hours 8 min	RA1 - President tenants' association – stadium watchman RA2 – Auto club chairman – retired – engineer RA3 – President tenants' association – retired – ambulance man RA4 – Chairman public transport users association
Group 4: "Road-using professionals" Date: 12 March 2010 Duration: 1 hour 59 min	PR1- Taxi driver PR2 – Commercial traveller PR3 – Maintenance technician PR4 – Director import-export company (sole employee)

This focus group method had not previously been applied to the subject in France, whereas it had been used elsewhere: in, for example, the UK [18], the United States [19] and Australia [20]. A focus group is a group of individuals selected and brought together by researchers in a relaxed, non-threatening setting for interactive, experience-based discussion of their perception of a given subject. The method raised difficulties for our work, but was also useful in respect of opinion polls and in-depth interviews.

Creation of the focus group is no easy matter; and the major problem once the group is rolling is achieving an equitable sharing of discussion time. It can happen, for instance, that someone more charismatic or clearly of higher social status than the others, influences the direction of the discussion or monopolises it. Moreover it emerged from the group interviews that discussion of automation was often seen as "imposing an issue" on participants [21], that is to say, forcing them into a field which did not necessarily interest them. In this case participants have a tendency to change the subject towards one they feel more at ease with. The duration of the interviews and the verbal exchanges that took place allowed us to spot this "imposition" and reorient the discussion in a way an opinion poll cannot. It goes without saying that the groups were not created as representative samples, but rather with the aim of providing access to a stock of information shared by a relatively homogeneous group of individuals.

Participants spoke with each other and exchanged ideas on specific points. In this way the group interview enables identification of changes in individual opinions initially expressed regarding information and ways of thinking put forward by the others in the course of discussion. Further, it provides a better awareness of the consistency of the opinions expressed by the interviewees. "Group dynamics" also sets up conditions conducive to a honing of personal positions and arguments. The combination of group homogeneity and interviewer empathy generates a climate of confidence favourable to spontaneous discourse [22]. In addition, the potential for disagreement among interviewees and for reciprocal influence in the course of discussion is enriching in terms of discourse.

Results

The discussions recorded have a lot to tell us about perceptions of road safety and official recourse to automation. They are very informative, too, about road users, as long as we are aware that what is to be found in interviewee discourse is an "indigenous categorisation of users" of the roads [23].

Perception of automation hinges firstly on the interviewees' framing of the road safety issue [24] : whom do they hold responsible for dangers on the roads? The recorded interchanges fit with the dominant representation in France, which consists in reducing the act of driving to good or bad behaviour [25]. The road safety problem is seen as the outcome of inappropriate driver behaviour, and this enables a better understanding of why public action on the road safety front puts its initial stress on penalties, education and communication. Since 2002 the automated devices, clearly classified as instruments of coercion, have proved their effectiveness, as official figures show: The number of fatalities has diminished by over 40% since 2002, and the authorities are speaking of 12 000 lives saved. Interviewees also noted as an everyday matter the drop in recorded traffic speeds: The average speed of private cars dropped by over 11 km/h on freeways and almost 15 km/h on secondary roads [26].

However this system is only one among the many available to the authorities for improving road safety. Among these the interviewees, including the highway policemen, markedly stressed the value of educational tools. Even more specifically, the focus on driver behaviour led a number of interviewees – with the traffic police once again no exception – to deny that speed caused accidents. So with speed not the cause – or not the sole cause – of the problem, automated enforcement cannot logically offer a long-term solution to the road hazard problem!

At the same time automated checking of red light running did not necessarily find greater favour, despite the lessons to be drawn from the existing literature [27]. Naturally we recorded opinions on the dangerousness of this kind of behaviour, but the interviewees, like the community association representatives group, expressed the feeling that the system was relatively pointless, the running of red lights being perceived as an infrequent problem. In addition they dismissed the argument in favour of protection for vulnerable road users on the grounds that Nantes residents are respectful towards pedestrians. Thus for reasons both general and local they did not really see the interest of the new device.

Description of driving behaviour provides a profile of several types of road users for whom the use of automated detection and sanctioning was more or less appropriate. In their research into police work Boussard et al. [28] foreground three categories or types of road users drawn up by police in the course of their everyday duties: the ordinary citizen, the offender and the victim. This typology can be compared with the types of road user outlined in focus groups including traffic police on the one hand and operatives on the other.

Road toll victims are startlingly absent from both discussions. This can be explained by the fact that the "real customers" of the professionals questioned – even if both groups find themselves involved with accident victims – are, rather, ordinary road users and maybe the offender. The discussions do, however, take the victim into account via references to "vulnerable users", these being first and foremost children. Reaching the same conclusion, members of civil society would like to see automated speed checking devices set up at points considered dangerous in the urban setting – near schools, for instance. For them it is not red light cameras that seem most useful in cities, but speed cameras. Speed in the urban setting is presented as a problem in terms of both dangerousness and frequency. This result thus highlights views of automation clearly at variance with those underlying the placement strategy for automated devices in France.

The recorded discussions concentrate more on the "offender" and the "ordinary citizen", with the risk that in the interviews they become – and this is especially true of the latter – the "victims" of the system. Looking beyond the systematic nature of the sanction, it is the secondary or indirect effects of the system that are foregrounded: a loss of licence points leading to loss of one's licence and even one's job. This placing of ordinary users in the role of victims is backed up by the fact that "road criminals" are not seen as particularly affected by a system primarily designed to combat everyday low excess speed offences.

Lastly, automation must be looked at in the context of the identities and practices of the groups of professionals. Professional rhetoric recorded in the discussions lays down what the "real work" of operatives is, showing how this work is affected by use of the automated system and thus raising the issue of a professional identity.

The automated radar is a tool whose introduction is by its very nature "destabilising" for the professional practice and identity of traffic police, even if the authorities have been able to present it as a technological means of resolving the difficulties of the profession. Automation reduces the administrative workload involved in ticketing, and in France its adoption was a reaction against the "leniency" that took the form of discretionary dropping of legal action and had previously both characterised the checking-sanction

chain and contributed to its ineffectiveness [29]. Furthermore, in that it does away with direct police intervention, automation goes counter to the ideal embodied by the "cops and robbers" notion.

The police cannot be considered solely as a tool for application of the law. In the course of the everyday interaction between professionals and users, the former are led to distinguish between the "real customer", the "minor customer" and the "fake customer", with automatic detection devices seen as instruments for combating the bad behaviour of the last two of these three groups. The use of mobile devices, which concerns professionals more particularly, thus lowers them in the moral hierarchy of their duties. What is more, the tool in question leaves no scope for "assessing" the gravity of the offence and "explaining" it to the road user, just as it leaves the user no chance to "explain himself". All this goes counter to the "practical autonomy" of the traffic policeman, in which resides a major part of the interest his work has for him.

And so the instrument involves the policeman in activities and methods that take him away from what he regards as his real mission; whence both the determination to entrust implementation to others – Ministry of Transport operatives, for instance, or private enterprise – and the rhetoric expended on establishing the system's "interest". Its principal interest lies, of course, in its effectiveness, but other considerations arose in the course of the discussions. For the police hierarchy the system is first of all interesting in managerial terms – personnel can be freed up for other tasks – and for the traffic police it has the effect of "guaranteeing" their interventions. Even so, for traffic policemen their "real job" remains "interception", which alone enables them to "situate" the driving act in question, "assess" the offence and broaden their "enquiries".

Unlike law enforcement officers, the automated radar device is not a core element in the context of the work of road maintenance and safety operatives. Nonetheless the discussions revealed an impact on their professional practice: naturally enough they noted a reduction in traffic speed near their work points, even if their complaints were mainly aimed at heavy trucks, whose speeds sometimes seem to them excessive and are not targeted by the automated devices, and at young road users they tend to see as "defying" the rules [30]. Moreover, while road safety and a constant awareness of the dangers of the road certainly appear central to their professional identity, they are not receptive to the idea of automated speed traps for work points. In addition to the concern with safety, their professional identity embodies that of facilitating traffic flow: the role of the road operative is not to "annoy" the user but, on the contrary, to enable him to make the best possible use of the infrastructure; and there is, too, a fear of violent reactions directed at them by road users who fall victim to these speed cameras.

The operatives also find it regrettable that radar maintenance constraints are not taken into account when the devices are installed, and suggest that "the procedures should call for validation by the managing body". Speed cameras set on the median strip are more difficult to service than those next to the emergency stopping lane, and at the time the discussions were taking place, radar maintenance was being made all the more difficult by a proposed European directive to the effect that a lane should be closed when work is taking place on the median strip. Should this become law, work would take place at night in the interests of smooth traffic flow, and this was seen as yet another constraint by the operatives we questioned. Furthermore, they said, there was a danger that this would provoke aggressive behaviour towards them by road users and represent an additional cost for the public purse. As maintenance operatives cover greater distances than ordinary citizens, another significant factor in the exchanges was the greater likelihood of being sanctioned. The result was a sense of injustice.

In contrast with these groups of professionals, community representatives showed no visible concern with automated detection devices. At the same time they were surprised that the state bodies in charge of the placing and installation of the devices had not seen fit to consult them as representatives of local associations. This is an indicator both of the current legitimacy of the practices of consultation and deliberation and of the fact that this new segment of public road safety policy was designed and overseen by central government bodies. In terms of the different territories concerned it involved essentially, not to say exclusively, devolved state departments, in a break with the dynamic of decentralisation and civil society involvement which had been at the core of road safety policy construction in France between 1982–2002 [31].

Discussions within this group also pointed up a dual assessment of the automated system, one based on a reading of the non-specialist and local press and on personal experience. There were few allusions to the discussions in the primary groups. Whatever the actual content of press articles on speed cameras – in which the cameras are considered simultaneously as an additional tax and a tool for making traffic safer –

it is known that individual readings remain selective: information going counter to the individual's notions are either ignored or discredited. As a consequence, and disregarding the accompanying advertising campaigns, the "practical", "local" perception of the system seems decisive in any understanding of the reception given it. Thus the interviews are full of local examples and specific cases experienced by the interviewees. This tends to validate our initial hypothesis, according to which the reception given the new instrument depends on everyday, personal experience.

On the other hand, the members of the fourth group seemed much less worried by the automated system and hence less critical of it. There are several possible explanations here. Firstly, the members are self-employed and enjoy a high degree of independence in planning and carrying out their movements. They present their social environment as involving few constraints. They do not have to react to pressure from a hierarchy, and the clients they call on do not push them to break the speed limit. Most importantly, however, they have succeeded in developing strategies of adaptation which they see as effective in reducing the possible constraints caused by the radars. These interviewees have equipped their cars with the technological wherewithal for coping with the restrictions inherent in automated detection – speed governors and limiters, GPS, radar detection devices – and see themselves as thus able to compensate for the risk inherent in greater exposure to automated speed cameras.

Another interesting piece of information to be drawn from this group interview, but also to be found in the others, is a sense of impotence regarding public sector power as embodied in this new system of surveillance and enforcement. Any challenge to a sanction seems particularly complicated and unlikely to succeed. At the same time, however, they cannot envisage, as has been the case in other countries [32], the presence of radars giving rise to collective action against the extension of automation or to discussion with the authorities regarding modes of deployment and sanctions. On the contrary, they see the system as encouraging individual ways and means of circumvention, which may be legal but sometimes are not: false plates, licence points bought on the Internet and vandalising of speed cameras. In this context the system comes across as capable of generating new delinquents because it fails to generate new public-spirited citizens.

Conclusion

Although the method used does not aim at representativeness in terms of the groups selected, it provides elements for understanding acceptance of automatic detection systems which are less well or only minimally covered by exclusive resort to opinion polls. While our analysis of the group interviews carried out points to the major acceptance indicators – reliability, effectiveness, equity, etc. – to be found in what is now the classical literature, the discussions generated have also enabled identification of other indicators and elaboration of other lines of reasoning.

Despite the results attributed to the use of this instrument – reduction of the road toll and of driving speeds in France – and acknowledged by those interviewed, our research makes it clear that for those for whom speed is not (or not the only) problem, the automated checking and sanctions system does not offer a fully satisfactory answer to the road toll issue. Denial of speed as an accident factor and the low rate of red light running are mentioned in the recorded discussions, and in some cases by traffic policemen. Moreover, automation represents only one of the many instruments available to the authorities for improving road safety, with interviewees putting the primary emphasis on educational measures. Lastly, perceptions of the system are certainly fuelled by the print and audiovisual media, which makes it relevant to develop communication strategies in parallel with coercive tactics; but perceptions are fuelled, too, by the occasional and everyday experiences of the interviewees. And so, while the effectiveness of this kind of system can be assessed in overall terms, the same cannot be said of its acceptability, which remains closely tied to interviewees' territorial and social environments.

The most unexpected result is that this instrument is perceived as destabilising for the practice and the identity of the professionals who ensure its sound functioning and guarantee its long-term effectiveness. This is the factor which influences most strongly acceptance of the devices used and the acceptability, for the professionals who were questioned, of the new uses envisaged. By contrast the two user groups seem less worried by this system. Among the explanations for this is greater adaptability to the tool in question. In the final analysis, this research brings fresh clarification of the relatively high level of acceptability of the automated checking and sanctions system applied to traffic violations in France.

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