Making sense of invulnerability at work— a qualitative study of police drivers

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Abstract

This paper reports a qualitative study of 54 police drivers who were interviewed about their views on police driver training, driving strategies and their accident involvement. Study of the transcribed interviews indicated that officers constructed narratives of themselves as being highly aware of hazards presented by other road users and they used a variety of discursive devices to minimise their own culpability and attribute risk elsewhere. Rather than maintaining a straightforward 'illusion of invulnerability' they were formulating a 'topography of risk' in which they were responding to hazards presented by suspects or other road users. Their meticulously detailed accounts of the circumstances surrounding accidents serve to place them as knowledgeable and impartial participants and create a sense of expertise and authority. Training initiatives could profitably seek to challenge this 'topography of risk' and sense of authority so that drivers more fully appreciate the hazard they may present to themselves and the public.
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1. Introduction

1.1. Risk, discourse and the study of safety

Many authors have recently highlighted the importance of psychosocial variables in an organisation's 'safety climate' and a thorough examination of the values,

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norms and expectations of employees has been advocated as the key to understanding what safety at work means (Mearns and Flin, 2001). In the light of this, and in recognition of recent exhortations for occupational, organisational and safety studies to embrace the growing interest in qualitative research, (Johnson and Cassell, 2001), this paper reports on an interview study of police drivers. The aim of this study is to identify the reasons given for accidents by police drivers and examine how they formulate the causal scenarios leading up to their accidents and/or near-misses. We shall attempt to show how a discursive approach, by virtue of its close attention to the officers' discourse, can yield some novel, provocative and important suggestions for further research, training and skill development in the police service, and other occupational contexts where people routinely deal with hazardous situations. This is a novel approach to accident analysis, as discursive psychology has not so far been applied in the field of accident analysis. Yet there are many features of discursive psychology which arç germane to this field. One of the founders of this approach, Jonathan Potter (1996, p. 87) explains its focus: "How is a blaming achieved? How is a particular version of the world made to seem solid and unproblematic? How are social categories constructed and managed in practice? Such questions require an understanding of what Billig (1987) calls the witcraft of rhetoric: the detailed, contextually sensitive manner in which versions are constructed and arguments deployed as well as an appreciation of the conversational organisations in which such procedures are embedded." It is with this approach then, that we shall attempt to explore the accounts offered by police officers for their accidents and near misses.

1.2. The social context of police accidents

Road accidents involving police cars are increasingly plaguing the relationship between the police and the community and threaten the public's perception of the integrity of the service. According to a recent report from the UK's Police Scientific Development Branch (PSDB, 1997) the majority of police collisions occur either in response to an emergency call or in pursuit, with a minority also occurring on patrol and during training. The vast majority of police collisions are minor, causing slight injuries and vehicle damage. Whilst police vehicle accident data are difficult to obtain, a UK Police Research Group report (Rix et al., 1997) highlighted some of the tragic consequences. Between 1991 and 1995 there were over 90 fatalities and about 1300 serious injuries caused during the execution of police duties. Of the fatalities, 83% were members of the public whilst 17% were amongst police officers themselves, of whom the majority were driving at the time of the collision. Whilst emergency response and pursuit driving are essential components of police work, death and injury to innocent bystanders in the execution of police duties are unacceptable especially if officers themselves are directly to blame for the accident. Regardless of the driving required for the execution of his or her duty, the public expect that officers will demonstrate the highest standards when discharging their duty. The UK's Police Complaints Authority expressed concern, when in mid-2001 its chair, Sir Alistair Graham disclosed a record annual number of deaths from

traffic pursuits by police in Britain. He described the 25 deaths in the year 2000–2001 as 'totally unacceptable' (The Times, 11/7/2001). He also said 'if there is no early improvement I recommend that the Home Office should seriously consider reviewing the law to ensure that police officers can break the road traffic law only if they are undertaking pursuits for a serious offence'. The steady rise over the years in the number of these kinds of accidents then highlights the urgency of finding new ways to make sense of the situation faced by police drivers and to discover ways of enhancing safety. This growing public and political concern was one of the major justifications for performing the present study.

1.3. Psychological perspectives on road accidents

It has been suggested that 90% of all accidents can be attributed to human error (McKenna, 1993). Despite this, drivers blame the weather, the vehicle or road conditions but it is not clear to what extent these self-serving biases are apparent amongst highly trained police officers. Police drivers need to use excessive speed in the execution of their duty and speed is strongly related to accident involvement (West et al., 1993) and excessive speed is argued to be the main contributor to road accidents (Johnson et al., 1980). Young men are more unrealistically optimistic about the negative consequences of speeding and unsafe driving (McKenna, 1993). The majority of drivers consider themselves to be more competent and safer than average driver, even after a serious accident requiring hospital treatment (Preston and Harris, 1965; Svenson, 1981; Glendon et al., 1996) but it is not clear to what extent this bias applies to police drivers. The consequences of such an illusory sense of personal control when driving are likely to be even more catastrophic for police drivers who are able to disregard the traffic law and drive at speed to apprehend a suspect or respond to an emergency call. Stressful driving situations such as pursuit or emergency response can induce negative attitudes and emotions that impair driving performance by depleting information-processing resources. There are concerns that the increase in police collisions may be partly due to 'red mist syndrome'. Red mist is a lay-term for the narrowing of attention through heightened psychological and physiological arousal in the pursuit of a goal (catching the suspect) during which officers may take undue risks. For example, Barton et al. (2000) found significant effects of high speed driving on police officers' physiological arousal, emotion and willingness to shoot a target. In this study, officers misattributed their feelings of arousal caused by the high speed driving to the suspect and are therefore more likely to discharge their weapon.

It is not surprising that drivers who drive for a living are at greater risk of an accident (Maycock, 1997). Traffic police may have more driving experience and training compared to standard police drivers but passing a skill-based police driving course is no guarantee that the skill will be exhibited and used appropriately during police driving. Racing drivers are highly skilled, but have worse on-the-road driving records than non-racing drivers (Williams and O'Neill, 1974). Whilst skill is important for safe driving, whether it is exhibited or not may depend on other factors, such as tendencies toward sensation seeking (Jonah et al., 2001) as well as

demographic factors, traffic conditions (Li and Kim, 2000) and even the kinds of driving manoeuvre which are being undertaken, some of which are more likely to result in accidents (Clarke and Ward, 1999).

In addition to the factors which are susceptible to quantitative investigation, it is important to note that accidents take place and are investigated within a complex psycho-social matrix. Driving and handling risk on the road requires a range of high level, conscious cognitive skills as well as performance-based skills in manoeuvring the car. In addition, the stories told by officers who have been involved in accidents will be revised and re-told as the incident is investigated, with consequent changes in story structure, emphasis and even arguably the putative underlying memory traces. Therefore an investigation of the way professional drivers account for the incidents in which they are involved is long overdue and in this investigation we will begin this process.

In the light of the foregoing concerns it was felt to be particularly important to address the psychosocial context of police accident involvement considering the dearth of literature on the subject. Psychosocial factors in police accidents are especially important given the stressful nature of police driving and police work. Previous research on a professional driver group showed a relationship between a drivers vulnerability to stress at work and a likelihood of their being involved in accidents (Evans et al., 1987) and that the social work environment and the management style of an organisation may also contribute to stress and reduced safety (Kompier and Martino, 1995). Therefore it is essential to examine these issues in accounting for police accidents.

1.4. Perceived invulnerability and self-serving biases

Most people underestimate their chances of meeting with accidents, illnesses or other misfortunes. Participants in a variety of studies dealing with hazards ranging from traffic to health are apt to overestimate their abilities to avoid problems (Weinstein, 1980). In group situations, group members will claim a great deal of credit for the group's achievements themselves and underestimate the contribution of other members (Ross and Sicoly, 1979). The sense of having better than average chances, abilities or personal qualities can be extremely robust. Snyder (1997) reported that his participants overestimated their life expectancy by 9 years compared with actuarial data, even if they are made aware of this error. This attribution bias is pervasive. Training programmes have attempted to improve safety by enhancing awareness of hazards and possible performance impairments (Greenfield and Rogers, 1999).

The belief that one is relatively invulnerable and can avoid the hazards which beset one's peers is argued to have important psychological benefits. Janoff-Bulman (1998) argues that the 'assumption of meaningfulness and a non-random world enables us to feel safe and secure' (p. 99). Ironically, this sense of security may increase the risk of adverse events if it leads to a decrease in precautionary behaviour.

The related issue of perceived control has also played a major part in studies of risk-taking, where people appear more comfortable if they have a sense of control

over events. This can lead to acceptance of a higher level of risk even if it is imaginary. Horswill and McKenna (1999) showed participants a video simulation of a drive through a variety of traffic situations. Those who had been asked to imagine that they were driving tended to prefer higher speeds than those who were asked to imagine that they were the passenger.

In this paper therefore we will critically discuss the notion of perceived invulnerability by means of a qualitative investigation of police drivers, develop the implications of our findings to reconceptualise notions of risk taking in psychology and offer some suggestions for research and development in driver training which might enhance road safety.

1.5. Alternative perspectives—shifting the paradigm

There have been a number of calls for a reconceptualisation of the issues involved in psychological aspects of accidents and hazards. For example, Hirschhorn and Young (1993) advocated the study of organisational cultures and the scrutiny of narratives of good and bad protagonists in the organisation as a way of examining the 'defence mechanisms' that organisational subcultures use to contain anxieties concerning risk. Goldberg (2000) chides researchers for focusing on perceived invulnerability and advocates a focus on the perceived benefits of risky behaviour. Joffe (1999) suggests that research has focused largely on cognitive information processing aspects and neglected emotional aspects. Good et al. (2000) promote a focus on the fearlessness and invulnerability which is a part of the masculine sex role in Western societies. All these lines of inquiry are prompted by the desire to challenge, revise or extend the concept of perceived invulnerability. Turning to the accounts of participants who are engaged in hazardous practices themselves might help to focus our search for theoretical development in this area.

Traditionally, the study of risks, hazards and accidents has assumed that there is a relationship between the individual's perception of invulnerability and their propensity for risk taking, leading to higher rates of accident involvement. In this view, risk-takers are unaware of the hazard, are not knowledgeable about precautions, or are not mindful of the consequences (Clarke and Ward, 1999; D'Amico and Fromme, 2000). Consequently, from the very inception of driver education (Personnel Research Foundation, 1938) efforts at reducing hazardous behaviour have addressed these issues.

We intend to begin the process of making sense of driving hazards, accidents and near misses by critically interrogating some of the assumptions, theories and findings in the literature on safety, accidents and human error, using the interview material from police officers. This will offer a contrast to much of the literature on accidents, road safety and risk where the majority of research is quantitative in nature, and has focused on demographic or psychometric correlates of accident involvement. The omission of participants' accounts of accidents and their likelihood is unfortunate because this might lead to some radically different theoretical formulations of accidents and suggest new avenues of investigation, education and policy. Attention to these accounts is also important because they often form the basis of any further

investigation of accidents, whether by academic researchers or in the form of inquiries undertaken by statutory bodies. Even physical evidence such as skid marks and impact traces is often interpreted in the light of participants' accounts of how they occurred. The pervasiveness of personal accounts is inescapable and the present paper was conceived in an attempt to establish some of their discursive features and to attempt to discern the implications of these for theoretical accounts of accidents.

2. Method

This investigation is based on a corpus of material derived from a group of 54 officers who were interviewed as part of a larger study of police driving. They were employed by two large urban police service and were recruited via newsletter, website and direct contact. All had agreed to participate in an interview as part of the research. The average age was 37 and had held a full driving licence on average for 18 years. During the previous 3 years, 27 had been involved in a blameworthy collision, 11 had been involved in a non-blameworthy collision and 16 had been accident-free. Thirty-nine had received advanced police driver training and 14 were trained to a standard level.

The interviews were originally intended to elicit accounts of accidents and near misses, views on the suitability and appropriateness of training and the possibility that organisational factors such as target response times and understaffing might contribute to accidents. In addition we inquired about the possibility that drivers might be overly emotional when involved in pursuits and emergency responses and suffer so called 'red mist syndrome'. In order to enable officers to freely express their opinions during the interview they were assured of anonymity and confidentiality, and efforts were made to ensure that this was maintained throughout the investigation. For example, details were removed from the data that might identify individual officers. Confidentiality was particularly important in this study because of the officers' apprehension that accounts of accidents and comments about the organisation might result in repercussions for them. Advantageously, the researchers were not members of the police services concerned and could readily assure participants of their independence.

Analysis strategies were prompted by several concerns. First, whether theories of accident causation involving a putative sense of invulnerability were sustained by the data. Second, we were concerned to follow the lead of grounded theory methods where it is argued that theoretical formulations should be allowed to arise from the data itself in a bottom up manner (Glaser and Strauss, 1967; Strauss and Corbin, 1998). Thus, an initial intuition that the study of accounts of accidents could shed light on what the participants were expressing was extended into a close reading to extract themes relating to the management and self-government of what they saw to be risks and hazards. The strength of the grounded theory approach is illustrated by the way that existing theoretical presuppositions about the subjective sense of invulnerability and risk taking were challenged by the data. The second strand of our analytic strategy was to follow the lead of Potter and Edwards (e.g. Edwards and Potter, 1992; Potter, 2000; Potter and Wetherell, 1987) who argue that language—

such as that in which people talk about accidents, near misses and the like—is a form of social action. Rather than merely describing the state of the world, language is a transaction in which the actors try to perform some social business. Thus, participants' formulations of accident involvement might facilitate courses of action— for example, they might delimit culpability, secure the speaker's status or assign blame elsewhere. In doing this we were attentive to the kinds of resources of meaning speakers draw upon, the words they choose to express and formulate events and the way they managed their 'stake' in the events so as to appear less blameworthy. A third source of inspiration is ethnomethodology (Sacks, 1992; Forrester and Ramsden, 2000). Accordingly, we will place centre-stage the participants' accounts of what they were doing and take these as our starting point for interpretation and attempts to theorise. It is not our concern to determine whether the accounts presented here are literally true. Rather, we are interested in elucidating their formulation of the events and the risks involved and considering the implications for psychological theories of accident causation. In this way we hope to develop new tools to obtain some purchase on an area of human experience which is very difficult to study because of its extremely transient nature. The thematic structure of the presentation of results is based on the broad themes that emerged in the participant's discussion of the issues—as grounded theorists would advocate—and own-words quotations are used extensively so as to allow an appreciation of how respondents expressed their views.

It should be emphasised that we are not taking the officers' accounts as a literal description of the accidents or near-misses as in most cases we do not have access to the evidence to corroborate their subjective self-reports. Neither can we make strong statements about the psychological processes at work in the moments before an accident takes place. Our intention is to take the accounts provided by the officers as a topic of enquiry in their own right. Taken in this way, the officers accounts can provide useful information as to the cultural resources available for making sense of accidents, can provide insights into the belief systems and social representations surrounding accidents and can expose new topic areas for more rigorous investigation.

3. Results and discussion

The results section is divided into two main sections. First, we shall present a broad overview of participants' responses to the interview questions and go on to consider in a more detailed fashion the structure of their accounts of accidents and near misses.

3.1. Overview of responses to interview questions

Interviewer: When was the last time you received any driver training?

The time elapsed since officers had last received any driver training varied from less than one year to over 25 years. On average it was approximately 5 years since they last attended a driver training course (mean = 5.50, S.D. = 5.39).

Interviewer: What was the main noticeable improvement in your driving after the course?

As a result of training, more than half of those interviewed believed that they had improved their control of the car, reaction time, confidence and driving tactics. About 39% saw an improvement in hazard awareness and a fifth saw an improvement in driving safety. A somewhat smaller group believed that they drove more cautiously and slowly as a result of driver training.

Interviewer: In what way could any of the police driver training courses you've been on be improved?

Approximately 44% of those questioned believed that there should be no driving test during training, suggesting that officers should be assessed as they go along. Forty-one percent believed that the police driver training courses should be longer, suggesting that there is insufficient time to cover all the skills necessary on the courses they have attended. Nearly 28% felt that there was a need for more specific driver training such as night-time driving, skid pad training and driving in unfamiliar settings. More than 22% believed there should be more response and pursuit driver training available.

Interviewer: Do you think you would benefit from any further training?

A large majority (89%) felt that they would benefit from further training.

Interviewer: Do you think that some police drivers you know would benefit from further training?

More than half confirmed that drivers they know would benefit from further training because they are inexperienced and/or lack sufficient training. Respondents suggested that these officers needed reassessments. Almost 28% of the sample knew someone who drove dangerously. A further 28% mentioned that some of their colleagues broke the rules on 'blues and twos', were complacent, or forgot their training once they were back on the job.

Interviewer: Do you think some police officers are naturally good drivers?

Less than a quarter of the participants believed there was such a thing as a naturally good driver, implying that most believed that driving was a learned skill. Of this small number, more than 70% felt that good drivers have naturally well co-ordinated driving skills and react accordingly. About 29% felt that naturally good drivers were safe at high speeds and had a calm personality. Nearly a quarter believed that attitude, confidence, and general enjoyment of driving was a factor.

Interviewer: Have you ever terminated a pursuit because it was too dangerous to continue?

Whilst many officers may not have been involved in situations that required them to pursue a vehicle, of those sampled, a fifth had terminated a pursuit because of the risks involved.

Interviewer: What do you think are the special qualities a good police driver needs?

Officers mentioned several factors that were necessary for good police driving. More than 52% believed awareness and appreciation of danger were important and a further 52% mentioned attitude, confidence, maturity and common sense. Half of the officers sampled felt that patience, restraint and calmness were important. Almost 46% of the responses also suggested that driving skills such as quick responses, strategic driving and good driving judgement were special qualities for police driving. Here, officers appear to have a good understanding of the sorts of skills that are essential for safe driving.

Interviewer: To what extent are collisions due to factors within the organisation?

The majority of the participants (41%) believed that workforce problems (such as workforce shortages or people doing the wrong job) were partly responsible for police collisions. Over 39% of the sample suggested those stress-related problems such as fatigue and job demands were organisational factors contributing to the number of police collisions. This supports the inclusion of cognitive skills training to change maladaptive driving appraisal and coping strategies within police driver training. Over a third of those sampled mentioned the problem of response time targets leading to some officers taking unnecessary risks in order to reduce response times. Nearly 24% suggested collisions were the result of lack of training and 20% said some of the police vehicles are not suitable for the job they are required to do.

Interviewer: On a scale of one to ten what are the chances of you having a blame-worthy collision in the next 12 months?

This item is a measure of officer's perception of risk. As we have noted, risk perception has been linked to risk-taking behaviour, and may also influence driving performance and psychometric test scores. Responses to this question ranged from zero (seven officers believed they had no chance of being involved in a blameworthy collision) through to seven (suggesting a belief that an at-fault accident is almost inevitable). However, the mean was relatively low at 2.18 (S.D. = 1.80).

Interviewer: On a scale of one to ten what are the chances of you having a non-blameworthy collision in the next 12 months?

Risk perception was somewhat elevated for non-blameworthy collisions as officers were prepared to accept that there might be an increased risk of being involved in a

collision that was not their fault. The mean score here was almost double that of the mean for a blameworthy collision (3.54, S.D. = 2.40 compared with 2.18) showing a large discrepancy between judgements of risk for blameworthy and non-blameworthy collisions. Therefore, officers generally believed themselves to be at a low risk of being involved in a blameworthy collision, thus apparently demonstrating an illusory sense of their own personal control whilst driving.

4. Accounting for accidents: reformulating invulnerability

A closer scrutiny of the accounts of drivers will now be presented, especially where this involves their accounts of accidents and near misses. This qualitative analysis will allow us to cast some new and critical light on the idea of invulnerability.

Much of the literature we reviewed earlier led us to expect that a traditional ignorance of hazard, underestimation of risk and blaming other people would appear prominent in the accounts. Indeed, for some informants this was true, but we detected much counterintuitive evidence that other accident-accounting strategies prevailed, as we shall illustrate.

4.1. The excess of awareness: detail as a resource for rationality

One of our concerns, borrowed from discursive psychology is the way in which participants manage the issues of stake and interest in their accounts of events. That is, this perspective assumes that accounts are not merely reflections of events but are carefully constructed so as to present the protagonist in a favourable light and to deflect possible criticisms. At the same time, the protagonists will sometimes go to great pains to display their neutrality and try to convince the hearers that they do not have an axe to grind (Potter, 1996).

The motivation to select amongst possible formulations and construct versions of events in a favourable manner might be especially acute amongst those who have had an accident. Choice of language and styles of formulation might have important consequences for the narrator who might face sanctions both within the organisation and more broadly within the judicial system.

Thus, a great many of the accounts of accidents which participants had been involved in were presented in terms of an excess of awareness and a surfeit of rationality. As if attempting to deflect an implication that they might have acted hastily or rashly, the officers were apt to provide elaborate justifications in their accounts (Scott and Lyman, 1968; Harre and Secord, 1973).

4.2. The benefits of risk and the sense of urgency

(Officer 1): "I had an accident, which was only a small accident, but in hindsight, because I tried to do something to save somebody's life but yet the bloke survived but I had an accident as a result of it."

Thus, in this formulation, it is not a risk blindly taken but one which results from a careful consideration of the relative benefits of different courses of action. Students of moral development might note an uncanny resemblance between this account and Kohlberg's 'Heinz and the druggist' moral dilemma (Kohlberg, 1981). The 'small' accident is contrasted with the presumably moral and practical benefit of saving a life. This formulation of accidents as being relatively insignificant is not accomplished as a result of feelings if invulnerability in any simple sense but is achieved by carefully counterposing the significant elements in the story. This can be seen in more detail; as the officer describes the incident in more detail.

Interviewer: Please describe what happened.

Officer 1: An old man got knocked down at a zebra crossing. The ambulance couldn't keep him alive because he was dead they said the helicopter was going to land on the junction. I went over and they said 'oh no they can't land there because of the wires, they are going to land down the road but we need the crew here as quick as possible. As is normal I drove up the road, the north back traffic was all stationary it was solid I drove south on the road to the school where they had landed. The helicopter medical crew ran out and jumped in the car. I'm now in the position where I'm two hundred yards from the old boy behind me, and two hundred yards to the next junction to turn around in a narrow street which is reduced by half its length and half its width by a queue. The choice is to drive down to the next junction turn at the junction and drive back up again or reverse, I decided to reverse. I reversed in a straight line I had plenty of vision, thirty miles an hour in reverse, then as I approached the front of the queue of stationary traffic there is a PC is standing there. I sounded the horn three times, with that the police officer stopped the traffic that was coming up the side turning. I mistakenly believed that he had stopped the traffic in order to let me past, to get to the accident. What had happened, he had been told to stop the traffic to let the buses go the wrong side, passing the accident. He had already spoken to the bus driver, so when he stopped the traffic, unaware of my presence because the siren did not work, I was mistakenly believed that he had stopped the traffic because he has heard the horn to let me go the bus driver has not bothered looking. I have slowed down as I've crept past the bus, as I have crept past the bus the bus has pulled out and hit the side of the car. I carried up another thirty yards, dropped the medical crew off, and came back to assess the accident. Most people would normally give you two points for that but there is a certain politics at work that resulted in a suspension.

There are a number of important issues in this quote for an understanding of vulnerability and invulnerability. First, in common with many accounts of accidents in our corpus of data, note the richness of the narrative. He outlines in meticulous detail the circumstances leading up to the accident, and that his whole sequence of manoeuvres were occasioned by people and conditions other than himself, the wires over the road junction, the decision of the helicopter pilot to land elsewhere, the traffic conditions, even his colleague stopping vehicles emerging from a side road.

The account of the accident is formulated so as to make it seem to have occurred not as a result of a blatant disregard of risk, but as a misunderstanding—thinking a colleague was stopping the traffic for him, but was in fact stopping it so as to allow a bus to proceed. Thus a process of decision making which is foregrounded in the account the possible hazard of reversing at speed is 'neutralised' (Matza, 1964). He travels at 'thirty miles an hour'—not in excess of the typical UK speed limit in urban areas—and has 'plenty of vision' (despite there being a medical crew in the car). Indeed, he has an almost telepathic—albeit post hoc—awareness of the state of mind of other parties: his colleague was 'unaware' and the bus driver has 'not bothered looking'—an implied carelessness which helps to prepare the scene for subsequent events—the bus driver 'pulled out and hit the side of the car'. The lexical choices too are part and parcel of this formulation. The bus driver 'hit' the 'side' of the narrator's car. Moreover, as he puts it twice, he 'crept' (rather than 'reversed' or 'drove') past (rather than 'into') the bus. In a sense then, we can hear how he is heading off possible alternative formulations of the same events which might emphasise that the protagonist had reversed at speed into an oncoming bus. To reiterate, we are not seeking to assess whether we agree with the truth of his account as a description of events. What we are attempting to show is how he constructs a sense of the truth in situ, which emphasises his own rationality and safety and the punishment as an overreaction. The distance he covered after the collision was a mere 'thirty yards' and not, for example the kind of distance that would count as a 'failure to stop after an accident'.

Here the excess of awareness and the meticulous detail of the participants account is also a resource on which the teller of tales of accidents can draw as a means of making the account convincing to hearers. This has also been demonstrated more experimentally in the study of eyewitness testimony (Bell and Loftus, 1988, 1989). Within the study of storytelling about unusual or hard-to-believe events it has been noted that detail is deployed as a means of authenticating the speaker's account (Wooffitt, 1992). Empirical research on memory for events in the street as people go about their daily business typically shows very low rates of recall, and theories such as 'urban overload' enjoyed a brief vogue in the 1970s to account for this (Milgram, 1970). The key feature here is the way memory—detailed, authoritative and (apparently) impartial—is usable by the participants as a resource to construct their accounts. This recollects Edwards's (1997) thesis that what might appear to be cognitive entities—memories, scripts, attributions and so on—do not simply underlie discourse and propel it (as with classic cognitive psychology), but are participants' categories. They are used in discourse to accomplish such things as descriptions, claims, accusations, and accounts of error. A memory such as this is the warrantable outcome of interpretative work by the participants in interaction.

The deployment of apparently detailed, detached and authoritative memories in accounts of accidents was a feature of most other narratives of accidents in the corpus of data, as we shall show below.

4.3. Accounting for accidents—the dialectic of disinterest and justification

The interactional and professional problem faced by officers who have had accidents is to minimise their own culpability and to account for their actions so they

seem careful, safe, reasonable, and warranted by the circumstances despite their having ended up crashing. To examine how the disinterested style of narration might help them accomplish self serving interactional ends, let us consider two more extracts before offering a more extended commentary on the issue.

Interviewer: How many blameworthy collisions have you had?

Officer 2: One about four months ago. I was pulling up outside the police station, it was very busy and there was a queue of traffic. I noticed a woman overtaking on the wrong side of the road and she was going against the traffic. She was driving with her left hand on the steering wheel and holding the phone in her right. She has then gone up to the junction to turn right causing a car coming across the junction to slam on its brakes. I went to pursue her and I didn't have time to turn on my blues and twos, as I turned the corner I was coming into the junction, I was conscious of avoiding the cars on my left and smashed wing mirrors with a transit van coming on my right.

The accident described by Officer 2, in common with many others, is nested in a detailed account of conditions which had a bearing on the events. There are some detailed descriptions of traffic conditions and the lexical choices themselves convey a sense of how the accident had occurred. A 'transit van' might be wider than a private car and the term might allude to stereotypes in the UK of 'white van man'. Thus, there is a meticulously crafted quality to the reality which is constructed around the accident, where a variety of devices are used to construct the physical features of the scene and the narrator as a person who was aware and in control of the situation. Despite the regrettable events, the overwhelming impression of rationality and awareness of other road users prevailed. Indeed, this contrasts with the apparent disregard of safety in his description of the target, driving on the wrong side of the road whilst telephoning and forcing other motorists to take evasive action. Again, rather than a simple description connoting a sense of invulnerability, this officer has crafted an account which emphasises both a meticulous awareness of risk and a justification for his actions in terms of the hazards being presented by the other motorist. Her disregard for safety is almost confirmed by the officer having an accident—despite his hyperalertness and his eschewing distractions like turning on his lights and sirens—so the target's behaviour is made to seem even more irresponsible.

A similar impression is given in this second example:

Interviewer: How many blameworthy collisions have you had?

Officer 3: One last September, driving down the country lanes in the early hours of the morning. One of my colleagues was in a pursuit and I was basically playing catch-up. I was going through the lanes that I didn't know very well, and I could see the lights of the other cars in the distance ahead of me. The road was dry but I was approaching a bend that had a lot of tree cover, which I believe, kept the road underneath wet, I braked very hard. To this day I can't,

the vehicle has ABS, but I can't remember the ABS cutting in. All I remember is the wheels locking ahead of me and going straight in to the bank and damaged the underneath of the vehicle.

Here again there is a demonstration of awareness of the conditions and the capabilities of the vehicle and how they might affect the handling in that situation. The formulation of his inferential framework—that the tree cover might keep the road underneath wet (rather than keeping it dry), and that the ABS may not have acted—not only minimise culpability but also demonstrate awareness. Seeing the lights ahead of him implies that he was not going much faster than the cars ahead, which had presumably successfully negotiated the road shortly before the protagonist himself. Indeed, his accident is almost a vindication of the view that the vehicles in front were taking some severe risks in travelling so fast.

When police officers have accidents there will be many opportunities to rehearse and reproduce their accounts, as the events surrounding the accident are investigated. Indeed, they may try to produce an account which minimises their culpability and establishes them as competent drivers to avoid negative consequences like points on the police driving licence ('if you get ten then you are banned.'—Officer 4) or prosecution. Unlike the accident investigator, our interest here is not in the literal truth of these accounts. We are in no position to judge the closeness of the transit van, the wetness of the road, much less the consciousness of the drivers in the moments before an accident. Rather, our interest is in how these kinds of accounts of accidents are constructed and the implications of this for the discursive structure within which the officers are embedded, for we would argue that the minutiae and detail of the accounts is itself conditioned by the narrative context of the events. The officers are keen to convince listeners that they were acting to the highest standard of awareness even when the accident occurred and were not only aware of the immediate road conditions but were actively making inferences about the likely risks they were encountering. These accidents are unfortunate but still within the realm of what was orderly, conscious and rational. The use of technical detail may be a strategy of legitimation (Seguin, 2001). Thus, the regime of training, inquiries, accountability and public policy informs officers' narratives—and arguably their consciousness—in inculcating this strategy for storytelling. As Schmid and Fielder (1999, p. 808) argue, 'causal knowledge is built into language as a system' and officers are adept at deploying these causal implications in their storytelling accomplishments.

From the point of view of the theories and findings in the introduction, we can see some of the discursive mechanics which lie behind the 'false uniqueness' effect or the 'illusion of invulnerability'. Rather than an unthinking ignorance of risk, participants are constructing a complex topography of risk where they are a low risk point. Other people, road conditions or even the cars themselves are the source of problems whereas officers depict themselves hard at work managing them and are thus unlikely to construct themselves as being the hazard.

The detail of their accounts, rather than being a simple reflection of memory, is also a resource participants are able to deploy in making their accounts convincing—a technique which is important in factual discourse (Wooffitt, 1992; Potter,

1996). In addition, eyewitness testimony research indicates that detailed accounts are more believable than those where details are sparse (Bell and Loftus, 1988, 1989).

Easthope (1986) argues that this 'clear and transparent style' (which can be seen in the officers' accounts) was developed in the period surrounding the English Civil War by writers determined to argue clearly about religious and political issues. It purports to be '…styleless, a clear window on reality that presents the truth nakedly and objectively as it is without any subjective feeling or attitude getting in the way' (1986, p. 79). This mode of writing, in professional contexts and in social science is pre-eminently about someone else, someone 'other' than the author (Brown et al., 1996; Gunnarson et al., 1997). Thus, this adds to the impression that the causal agents of hazard are other people and their ill-thought and myopic actions whereas the officers' traffic awareness and impartiality is part of their identity as low risk points in the urban landscape.

4.4. Officers as active managers of risk: hanging back and easing off

Many of the officers presented themselves as active managers of risk and described themselves undertaking elaborate sequences of judgement recollecting Adam Smith's 'rational economic man' about risks and likely benefits of driving fast to emergencies or to pursue suspects.

> Officer 5: … I sort of made a mental decision after that [accident] that, although I've been involved in pursuits since I have and I have had damage to the vehicle but that wasn't my fault. But I make the decision that I was always going to try and consider, what I was got back to earlier on, I'm gonna get there but I'll get there thirty seconds later which is not gonna make that much difference and I'm gonna get there in one piece. But I think I I don't suppose you get many people that would admit to red mist.

The sense of risk or hazard management is depicted as extending even further back, before the decision to respond. However, deciding not to race to an incident might place the officer at odds with colleagues:

> *Interviewer: To what extent are collisions due to factors within the organisation?*

> Officer 6: Yes a lot I think because of pressures on controlling staff, a lot of the controlling staff are civilians not police officers, there are a couple of police officers. If there are any immediate response calls out standing they start screaming down the radio about it. 'We haven't got any one to go to this call', it's main channel, the people in the controlling room get too over emotional about it, 'there's a fight, and he's got a knife'. My view is I don't care, whatever the job is, if doing it is about response time it does not interest me at all. I have actually called up and downgraded the call. I've actually pulled up and said 'I'm not going on a response because I'm not going into that load of old rubbish, it's not worth it, I'm telling you, I don't care what you think'.

Interviewer: You feel like you are in a position to judge it better yourself?

Officer 6: Yes I am, its down to the driver, yes I am but a lot of people don't they just wait for some rubbish call. They say [name] will do it but it's not worth it, most alarms, you know if you should go to an alarm on an immediate call. When do you actually catch a burglar because of an alarm, not many, you do sometimes, it's just knowing, a lot of its local knowledge.

Here, the participant elaborates a complex rationale for not speeding and ends by downgrading the element of speed in successful policing. Local knowledge is more important. Thus his description of his working style is of someone who takes his time, ignores the urgency expressed by control room staff, and relies not on an instant response but on local knowledge. Thus, despite his maverick approach when it comes to organisational efficiency criteria, he is able to show himself retaining fidelity to the purpose of policing.

The participants presented themselves as active managers of risk whilst driving too:

Officer 7: [I] had to take the junction roundabout on the wrong side because there was a build up of traffic. I was aware there was a blind spot where people come straight onto zebra crossing I was doing the minimal minimal speed. Someone ran across from that blind spot right in front of me even though the lights and sirens were going. But because I was going slow and aware of the hazard I was able to stop in time and safely.

Or, alternatively:

Interviewer: Please describe the last 'near miss' when driving on duty

Officer 8: To be honest I can't think of one, you have situations were members of the public do things that are out of the ordinary. But to be honest because you've seen them, you're waiting to see what they are going to do, I wouldn't really class that as a near miss. Because we would just stop and let them get on with what they are going to do. That's the majority of it the unpredictability of the general public. What we do is we try to get eye contact with the driver, because if you have eye contact with them then they have normally seen you and you can drive through that hazard without the fear that they will come out. They might still come out but you would be going at a speed where you can avoid it, you can stop. But no I can't think of a near miss because you always drive to react to what's coming along anyway.

As well as presenting the protagonists as actively managing risks these two extracts have a further feature in common. That is, the public are seen as unpredictable, who don't see the police car or who chance crossing the road or pulling out in front of it. Here, the participants are working with categories of people—themselves versus the

'general public'. They are mobilising 'locally used, invoked and organised membership categories' (Hester, 1997) and this enables them to call upon what is conventionally known about police and the public. This enables speakers to draw upon larger scale historically embedded discursive formations where the police might be identified, for example, as sources of expertise in road safety. These grander resources of meaning and order interpenetrate the interview interaction (Forrester and Ramsden, 2000; Hutchby, 1996). The police then are able to render an account of themselves where they have special skills of hazard anticipation which not only set them apart from the 'general public' but also allow them to safeguard the public's well-being, despite the public's myopia for risk. This formulation neatly inverts the usual implication that speeding drivers are hazardous and activates instead the implication that the public themselves are the obstacles and the police are struggling heroically to avoid them.

Thus, the police are managers of the risks which are set in front of them by other people. Here it is worth returning to the idea of perceived invulnerability described earlier. The officers quoted above indicate not so much a straightforward sense of invulnerability—for they are quick to show awareness of hazards presented in fast driving—but a sense that they are members of a privileged category who deal capably with hazards presented by other people but do not themselves constitute a hazard to others. Thus, there is a sense of special status to the membership category they construct themselves into.

The sense of a rational approach to hazards is further enhanced by the elaborate discourse on road conditions and other drivers' behaviour which is present in these accounts. The officers then are in a privileged category characterised by rationality.

4.5. The construction of rationality and the control of emotions

The rationality that was espoused by the officers was not something that existed naturally. When the concept was unpacked, it was described a being the result of a meticulous process of organizing and controlling one's self and one's feelings.

Interviewer: What do you think are the special qualities a good police driver needs?

Officer 4: To control adrenaline, that effects for me personally pursuit driving only. Driving to emergency calls I find that as much part and parcel of my daily work and I don't get a buzz out of it, I'm just doing what I'm here to do and touch wood three years on I haven't been involved in collisions and I've been doing that daily. During a pursuit I get a huge adrenaline flow there is no question about that and my senses get very very sharp and heightened. You need to be able to control that so that you don't get overconfident, go into hazards too quickly, brake too late, that type of thing, the thrill of the chase. As an advanced driver certainly if you can control that then you're nine tenths of the way there.

Here, the participant is laying out the ground rules or prerequisites for the rationality and awareness which are so prevalent in participants' accounts of their

driving behaviour and accident involvement. In other words, he is regulated to the point where the process of emergency driving is rendered mundane—'part and parcel of my daily work' and is therefore quotidian and unremarkable rather than something that he gets a 'buzz out of'. In presenting and managing his identity as a driver, he presents himself as a master of self management. The 'huge adrenaline flow'—itself a rhetorical flourish rather than the result of blood tests—is not described as being disabling, but is something that makes his senses 'very very sharp and heightened' Indeed, this is a large part—'nine tenths'—of being an advanced driver. Again, the use of technical terms, the precise estimation of proportions 'nine tenths'—the recognition of pitfalls—'overconfidence'—presents a picture of superior awareness, not only of the external geography of hazard, but the interior psychological landscape too—almost as if the machinery inside the person was susceptible to rational management in the same way as the skill of driving itself. The argument that new technologies and working practices lead to shifts in consciousness and new ways of conceiving of the self has been made most forcefully by Rose (e.g. 1999). The psyche then, in this officer's formulation is something that is not only susceptible to this kind of self examination but also improvement and redevelopment.

5. General discussion

Having examined the transcripts, what are we to make of the theoretical concepts with which we began this paper? What can we say about cognitive aspects of risk taking such as the illusion of invulnerability? The present study has highlighted that the classic psychological formulation of risk-taking is called into question and revised by a close attention to the interview material. That is, it is difficult to see the participants' accounts yielding any straightforward support for a model of risk taking and human error which emphasises ignorance, underestimation of risk or a sense that 'it won't happen to me'. Rather, the officers construct themselves as a low point in their cultural topography of risk—"I believe that we are quite a low insurance risk" (Officer 9)—and as contending with the hazards poised by other road users. This in turn means that they are presented as representing safety rather than hazard, and by dint of cost–benefit analysis, to be managing risk in a downward direction for themselves and the public, all of which is contingent on their keeping the malfeasant 'adrenaline' under control through a process of self awareness and self management.

Much psychological investigation of human responses to risk, chance and uncertainty has been haunted by the legacy of psychoanalysis. The frequently-detected self-serving biases and illusions of invulnerability are often assumed to reflect some defence against the anxiety that might arise when people are confronted with a chaotic and threatening environment. This assumption has led educators to try to inculcate an awareness of hazards, a 'realistic' appreciation of the risks involved and a desire to take precautions. However, one implication of the material presented here is that this may have the very opposite effect in that it will give people more resources with which to justify risky courses of action. In a sense, it might help them

make better excuses equip them with new techniques for undertaking a discursive process of neutralising them, so as to facilitate risky courses of action.

Whilst this may seem like a paradoxical assertion, it is not beyond the bounds of possibility, and has parallels with some well established traditions and findings in psychology. People report being comfortable with a higher level of risk if they believe that safety features such as anti-lock brakes are present (Jonah et al., 2001). Indeed, risk homeostasis theory (McKenna, 1985) is predicated on this kind of compensation for safety. Hitherto it has mostly been studied with regards to physical safety features, but it is also demonstrable where psychological and behavioural precautions are concerned. People who regularly use condoms perceive themselves to be at lower risk HIV infection (Thompson et al., 1996). The idea that training can actually increase risk taking was even alluded to by one of the participants himself:

Interviewer: Do you think that some police drivers you know would benefit from further training?

Officer 10: Oh God yes definitely. The worst thing is when people just come off their driving test, there was an accident last night, chap just come off, lost it when he hit the central reservation, might have a broken bone and he had to go to hospital. When you have just come off driving test that's the time when people have accidents, first six months, red mist time. They build you up, people think they are invincible because of all this building up, you go faster and faster and faster yes I can understand you want to be a confident driver but that's the problem.

This idea that the 'building-up' process in training increases risk taking is consistent with our intimation from the interview material. Enhancing peoples' awareness of hazards may increase their ability to justify themselves.

In studies on naive participants, making them accountable for their driving skill reduces positive self-evaluations (McKenna and Myers, 1997). However, our participants appear to be expert account-givers—indeed, working as a police officer involves much of this activity, for example, giving evidence, compiling reports and responding to inquiries from colleagues. The culture of many public service organisations emphasises the necessity of ensuring that practice is aligned with guidelines and regulations, so account-giving may well be more familiar and expertly accomplished by participants in our study. This process of accounting for accidents which we have described in the present paper may also contain some clues towards the further investigation of accidents in other groups of drivers particularly professional drivers with additional driver training. The tendency to attribute the causes of accidents to unfavourable conditions or to unpredictable behaviour from other drivers may well be detectable if one were to examine accounts of accidents more generally. We would like to enter a plea for researchers and policy makers to consider seriously the process of account formulation when investigating accidents and conducting research on safety. The methodology offers valuable insights into the potential relationship

between organisational culture, stress and accident involvement, as an essential starting point for any investigation of safety issues.

Thus, we would like to suggest a shift in the focus of risk study, towards an understanding of risk as a discursive phenomenon. Once we make sense of the stories people tell about hazards we might be able to genuinely improve training and enable people not merely to justify themselves or make claims that they are controlling their emotions, but to engage in a critical dialogue about driving practices. The participants are already expert in storytelling and new ways could be developed of utilising these skills to enable critical analysis rather than self-justificatory accounting. It might be possible to revise their implicit models of risk so they can see themselves as potential hazards rather than the other road users. In any event, the possibility that training and awareness on the part of drivers may increase the level of risk taken by drivers is one which must be taken very seriously in future research and policy on the issue.

Although the present study is concerned with retrospective accounts, it highlights room for improvement in the cognitive skills of police drivers. Much driver training addresses 'low' level skills such as vehicle handling and very rarely considers 'high' level skills such as appraisal of the driving task demands. Cognitive competencies in making safety-oriented decisions are vital in training for police drivers and yet are the most difficult to train. In particular, a focus on operational and occupational safety through cognitive skills training is desirable. Strategies that change the internal context of cognition and motivation that a driver brings to the task can be addressed. There are a range of possible targets for specific maladaptive cognitions such as running a red light as a way of adhering to target response times. The vast majority of driver training programmes do not consider emotions and cognitions that are appropriate for driving; yet this study suggests their important role in driving behaviour. Officers in the present study frequently emphasised the importance of managing one's own emotional and cognitive state whilst evaluating incidents and driving to them so training could profitably build upon this skill. There is also a need to focus on the question of self-confidence, since over-confident drivers may overestimate their skills, especially in emotionally charged situations (Joffe, 1999). Therefore, training should attempt to reorientate driving cognitions so that they are based in reality rather through distorted perceptions. One possible strategy for intervention might be the development of social skills for avoiding conflict such as defensive driving, anger management training, or even giving officers strategies to resist a peer culture which values rapid responses and aggressive driving techniques.

Whereas much of the work of psychology on the process of risk taking has emphasised the relationship between this and stable, biologically based personality factors (e.g. Zuckerman and Kuhlman, 2000) we have sought to open up another possibility. That is we have sought to show how the process of risk taking is connected with a variety of moment-to-moment practices of accounting, formulating events and assigning culpability for the hazard. The data presented above, we hope, will emphasise the way that living and working in a context of risk is a continuous accomplishment and is constructed and reconstructed by officers in situ using a set of linguistic conventions, culturally available resources of meaning and folk psychologies which

afford and enable their daily work. Attending to these practices of accounting, formulating and narrating events will, we hope, bring researchers and policymakers into closer contact with the everyday practical accomplishment of living and working with risk. In this way these practices may be understood and even transformed so as to enhance safety for the public and officers alike. There is a real need to review police policy with respect to police driver training. A first step would be to incorporate the above recommendations to bring police driver training into line with community expectations and help improve the standards of police driving.

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