

**AMABHADI KAKHISIMUSI**  
**(THE GRIEFS THAT CAUSE ACCIDENTS)**  
**ACTING SAFELY ON REALITY NOT MYTH**

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## INTRODUCTION

Current policy initiatives around road use, particularly that of "Arrive Alive" use a scientific, rational choice model to both explain and influence road user behaviours<sup>1</sup>. Embedded in this macro theoretical framework is the middle level theory of "risk behaviour". Risk is alleged to play a major role in shaping behaviour (Eaton and Eaton, 1995:141), in that people act out of information-based rationality. They choose to take risks or are risk averse according to their perception of costs and benefits, which most crudely, articulate simply in terms of monetary value (Eaton and Eaton, 1995:141). At both levels of theory, knowledge and attitudes are seen as the crucial constructs that determine human practices (Campbell and Williams, 1996:58).

The problems with this approach are several. Within the risk paradigm itself, perceptions of risk more often than not, are relative rather than absolute, since every action taken implies some element of choice and therefore risk. More generally, people's actions are not simply or even mostly a matter of discretionary choice. What people do, how they act is often motivated by necessity and shaped by pre-existing social relations that are greater than each individual<sup>2</sup>. These structural relations impose constraints on behaviour that far outweigh discretionary choices. Rather, they often provide the framework in which discretionary choices are made. Assumptions about risk taking or aversion cannot account for often overarching structural determinants. The theory also ignores or can't account for non-science based rationales which underpin much human social interaction. Religious and supernatural belief systems as well as stereotypical assumptions of others within and outside particular communities or societies, exist side by side informed, science based rationales. These rationalities (and irrationalities) can act in a complementary way. But equally, they can be contradictory.

Given that agency (human behaviour) is shaped by multiple factors - competing rationalities and belief systems, structural constraints and necessity - it seems unlikely that risk behaviour 'theory' is likely to adequately account for people's use of the road.

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<sup>1</sup> It is coupled with active enforcement (the imposition of structural constraints) through which road user behavior is externally regulated .

<sup>2</sup> In one of the few studies to look at these issues ( Marcus 1997) it was found that work was a crucial determinant of how truck drivers use the road, with implications for their safety and health as well as their interpersonal and working relations.

Under the slogan "*road deaths are no accident*" the Arrive Alive Campaign, for instance, assumes human agency to be the primary cause of road accidents. It holds that if road users are better informed (and better regulated), they will act on what they know to minimise or avoid bad road use behaviours. While this kind of assumption may resonate in a science based, rational choice framework of belief where individuals can and do act to regulate their environment, the question needs to be asked about its impact on people who operate through different rationalities, prejudices or irrationalities. The purpose of this paper is to explore the extent to which non-scientific belief systems inform road user behaviour.

## STUDY APPROACH AND OUTLINE

This paper draws on the findings from three case studies carried out in Pietermaritzburg. The first is a study of 100 taxi drivers operating in the local and long distance taxi business in the KwaZulu Natal midlands<sup>3</sup>. The second is a study of 100 private vehicle drivers 60 years old or older who hold valid drivers licences and have been active drivers for the past 5 years<sup>4</sup>. And the third is a study of 100 young drivers who have valid driving licences and are between 18 and 35 years of age<sup>5</sup>. Respondents in all three studies were selected using non-probability sampling, generating indicative results that provide insights into issues and trends without being generalisable to the larger study populations. Race and sex were conscious criteria for respondent selection, although this was not carried out in a systematic way. Interviews were conducted face-to-face at two major shopping malls and during off peak times at the city centre's taxi ranks. All three are cross sectional studies using quantitative methods, asking open and closed ended questions from pre-designed structured questionnaires.

## OVERVIEW OF RESULTS

### **The study populations**

The taxi drivers are mostly male (n=97). Most respondents are African (n=84) although a fairly sizeable minority of Indians (n=15) agreed to participate in the study. Coloured taxi drivers were reluctant to be interviewed, with the result that it was possible to get only one Coloured respondent. Most drivers are young adults. 69% are at or below 29, the average age of respondents and over four fifths (n=88) are 35 or younger. The majority of drivers were born (n=92) and presently reside (n=99) in KwaZulu Natal, with most being from (n=62) and staying in (n=84) Pietermaritzburg. Educationally, the majority of drivers (n=97) are functionally literate. Only three have no (n=1) or incomplete (n=2) primary education. Just under half (n=46) have incomplete secondary education, 36 have completed matric and 9 have non-university tertiary education. Over two fifths of the drivers describe themselves as the sole (n=29) or primary (n=14) breadwinner in their households while the remainder earn to meet their own needs. Of the latter, most (n=36) make occasional money contributions to their families with twelve saying that they never contributed. The majority of drivers (n=72) work in the local, short distance taxi business. The remainder work in both short and long distance passenger transport, with the exception of three who work long distance only. Only five taxi drivers interviewed describe their health as average to poor. The rest consider themselves to be in excellent (n=56) or good (n=39) health.

The aged respondents are both male (n=58) and female (n=42). The majority are white - 69 are English speaking, 18 are Afrikaans speaking - and a few (n=13) are African, reflecting the lower levels of private

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<sup>3</sup> Wosiyana M J, Marcus T S and Roebuck C 1999 "The Arrive Alive Campaign and the Myth of the Ghost"

<sup>4</sup> Majozi Z C, Marcus T S and Roebuck C 1999 "Aged Drivers Perceptions & Experiences of Safety on the Road"

<sup>5</sup> Shange Z, Marcus T S and Roebuck C 1999 "Young Drivers Perceptions of Old Drivers"

car ownership among the black population. Respondents range in age from 60 to 86 years. Three fifths are below 70, the average age of the sample. Most (n=83) describe their health status as excellent, with only a handful who describe it as average (n=10) or poor (n=7).

In the study of young drivers respondents are more or less evenly divided between men (n=53) and women (n=47). In terms of race, 41% are African, 29% are white and Indians and Coloureds make up 15% of the sample, respectively. The average age of respondents is 23 and all are 35 years old or younger. Nine out of ten describe their present health status positively - as good or very good. Nine say their health is average with only two who describe themselves as in poor health.

### **Driving Experience**

Of the drivers who participated in the taxi research nearly half (n=47) are inexperienced drivers, having been licensed to drive for five or fewer years. 37 have had licences for six to 10 years, with the remainder having licenses for 11 or more years. Of the latter, two have had licenses for over 30 years.

In terms of public drivers' licenses<sup>6</sup>, it is worth noting that 74 taxi drivers obtained permits to transport people simultaneously or shortly after they qualified to drive and without having had any real road use experience. Relatively speaking, the majority of taxi drivers interviewed are newcomers to passenger transport. Four fifths have been working in the sector for five years or less, with 11% having 12 months or less driving experience. Moreover, their entry into the sector, for the most part, is not from a related field of experience. Most (n=68) were scholars and students or unemployed, while 32 had some prior work experience. Of the latter, only seven were drivers and two were taxi assistants.

Similarly, young adult, private vehicle drivers in this study have little road use experience and are relative newcomers to driving. The majority (n=83) have been driving for five or fewer years and one in ten have less than a years driving experience. By contrast, the driving experience of aged respondents ranges from 16 to 70 years, with an average of 45 years of road usage.

### **Road Use**

The three populations use the road for different reasons. For taxis drivers it is, first and foremost, their place of work. They start work between four and six o clock in the morning and they end between five and seven thirty in the evening. Only three respondents work an eleven hour day. The rest work anywhere between 12 and 15 hours during the week. For aged and young, private vehicle drivers trip generation is essentially for shopping, accessing services and socializing purposes. Only six aged but 40 young drivers need the car to access work, but their work place is not the road. While many old and young drivers use their cars daily (n=61 and n=49, respectively) a substantial minority drive intermittently - once or twice a week (n=22, each) or even less frequently (n=17 and n=29, respectively).

As a consequence of their different need for transport, their road use patterns are different. Only those who are going to work are likely to become part of the common pool of road users travelling to and from their workplace during peak hours. Both young and old drivers tend to shop and socialize during off peak traffic hours. This said, even when needs and activities are similar, how people meet them is influenced by age. Young private vehicle users tend to drive at any time of the day or night. Only a few use them at

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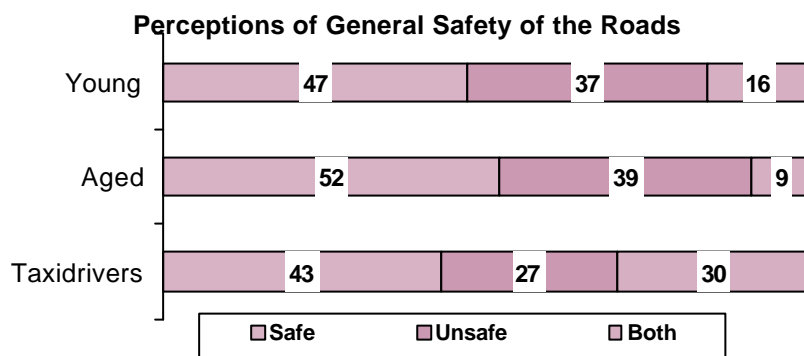
<sup>6</sup> Now called Professional Drivers Permits, the only requirements of the applicant is that s/he is in good health, has had no convictions for road use offences and can afford the license fee. Monitoring of road use is done through an annual renewal process as well as spot checks of vehicles and drivers. Drivers who transport ht public are not required to undergo further or special training.

specified times, and this is mostly because the cars they use are a resource they share with others - parents or siblings. By contrast, aged drivers mostly use their cars during the daytime, with a large number (n=40) specifying their preference for driving in the mornings. Also, many (n=61) say that there are situations that they now choose to avoid, although they drove in them in the past. Particularly, they mention night driving, driving on busy roads, driving in bad weather or unfamiliar areas and driving long distances.

Given their different needs and patterns of road usage, do their perceptions of road safety and risk differ?

### Perceptions of Road Safety and the Source of Risk on the Road

In terms of general road safety, perceptions across all three study populations are remarkably similar, as



the chart opposite shows. The most notable difference is among taxi drivers. Fewer tend to see the roads as unsafe and more tend to emphasise the ambiguity of the roads as both safe and unsafe places. No doubt their perceptions are influenced by the fact that they are exposed to a range of road conditions on a

daily basis, and of course, they have to be there in order to make a living.

All three study populations identify similar dangers on the road although each give different weight and emphasis to the risks and their causes. One of the biggest dangers for all road users is being involved in an accident. Bad driving is recognised by all to be the main cause of accidents. Taxi drivers (n=98) mention speeding, overloading and drinking and driving as particularly hazardous road practices. Many also mention the poor condition of their vehicles (n=94), limited training (n=86) and fatigue (n=82) as well as bad weather (n=87) and poor road conditions (n=80) as factors that make them vulnerable to road accidents. Apart from bad practices and conditions that are seen to cause accidents, many taxi driver respondents think that pedestrians (n=84) and to a lesser extent private motorists (n=57) cause accidents. There is also a minority (n=29) that believe that road accidents are caused by unrequited spirits - the ghosts of people who have died in road accidents but who have not been properly laid to rest.

Young drivers mainly attribute the risk of accidents to bad driving. Notably respondents single out themselves, as a category of drivers who have bad practices. Most feel that young drivers drive too fast (n=91), take too many risks (n=80), drive recklessly (n=63) and don't obey road rules. Despite recognising these problems in themselves or other young drivers, and articulating a universally felt fear of accidents (n=95) most (n=81) do not rate themselves as a category as the worst road users. Rather the most common perception (n=38) is that taxi and truck drivers are the worst - because they are "running for money", always in a hurry, drive unroadworthy vehicles, drive long distances and suffer from fatigue. Drunken drivers are also identified by a substantial minority (n=21) as bad road users.

Aged drivers also fear accidents. However, these fears stem not from perceptions of their own road use practices, but rather from that of others. They regard themselves as safe, competent drivers who don't take chances on the road and make fewer mistakes than other drivers. They also drive slowly and are considerate of others. Most (n=68) strongly feel that they are not dangerous on the road, especially

because they are more inclined to take account of their own limitations. Many (n=57) rather regard taxi drivers as the worst road users, saying that they break all the rules of the road and behave in a highly unpredictable manner. Several see men and pedestrians (n=14, respectively) as the worst road users, while the remainder see various other categories of road users as the worst.

Another road related risk mentioned by a majority of taxi drivers (n=88), half the young respondents and 15 aged respondents is hijacking and robbery. This perceived risk is a reflection of the type and level of crime in our society and people's sense of vulnerability on the road and more generally.

Other perceived road risks for many young drivers are fear of being caught on the road breaking rules (n=51) and to a lesser extent, driving at night (n=34). Aged drivers fear that their reaction time may be too slow when they have to make a quick decision. They also feel pressured to drive faster than they would like and some have difficulty reading or predicting the actions of others, especially when the roads are busy.

Given their need for and use of the road network, the question is whether road users feel that they can influence safety on the roads? In other words, do their experiences and perceptions of the hazards of road use translate into a sense of agency and is this sense of agency informed by science- or non-science based rationality or indeed, other beliefs? Only the taxi driver study specifically probed this problem. Some level of inference can be drawn from responses to other issues in the other two studies, although these would have to be studied further.

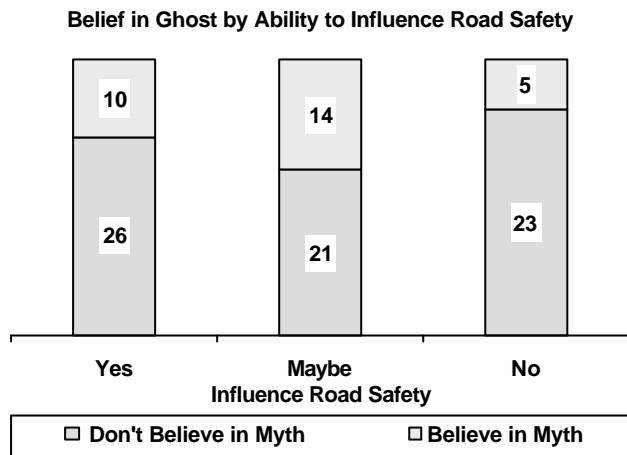
### **Perceptions of Agency**

By saying that they avoid night driving, driving in unfamiliar areas or in bad weather as well as not taking long trips or even by not driving at particular times of the day, aged drivers articulate a sense of agency. They try, as best they can, to avoid situations on the road that would endanger them or create a condition of risk. At the same time, they are acutely aware that many of the conditions on the road are beyond their control. Particularly the speed of the flow of traffic or the way other road users - particularly taxi drivers - drive. Nevertheless, by their own account, they enter this milieu and take their chances, albeit under conditions they consider most auspicious. And they act in this way out of necessity.

While nearly all young adult drivers fear accidents, and many recognise their own behaviour on the road to be contrary to safe road practices, only about three fifths (n=63) think that they can do something to prevent accidents. While most have a sense of agency, their reading of dangers on the road and the way they actually behave suggests that their actions are significantly influenced by inexperience, age and sex, although the last only came through in an understated way in the study. By their own admission they are more likely to disobey road rules, speed and drive recklessly as well as enter into situations on the road known by them to be of high risk. The fatal cocktail of youth, inexperience and masculinity generates an agency that supersedes the imperatives of necessity or a science based rationality of risk.

As to the taxi drivers, this fatal cocktail combines with the additional onerous structural compulsion of speeding, overloading, working long hours and driving vehicles that are not necessarily as safe as they ought to be in order to earn their livelihood. Yet, most (n=71) too have a sense of agency. Of these half (n=36) feel they can influence conditions on the road by regulating their own behaviour, i.e. by driving safely and obeying the rules, as well as by thinking about and anticipating other road users. The other half (n=35) are somewhat more tentative. They say they may be able to influence road safety by driving safely, but this also depends on the behaviour of other road users as well as on other factors. A substantial

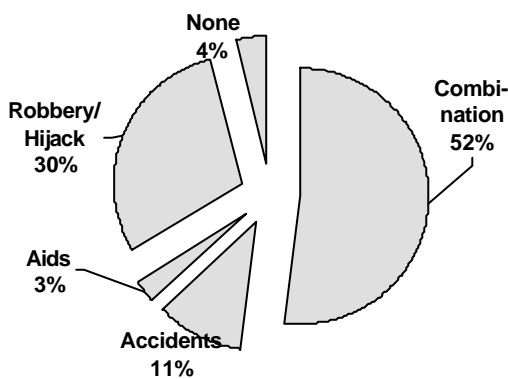
minority (n=29) feels that they are unable to influence safety on the road. They say that they have neither the power nor the ability to prevent road accidents or influence the behaviour of other road users.



A simple assumption might be that this sense of powerlessness and lack of agency derives from a non-scientific rationality, such as the belief in unrequited spirits as the cause of serious or fatal road accidents. The chart opposite shows that the belief in the myth of the ghost is strongest amongst those who feel ambiguous about their ability to influence road conditions. It is even relatively stronger amongst those who feel that they can positively influence road safety than those who say they cannot. In fact, only five respondents who say they can't influence road safety believe in this myth.

This finding reflects two things. On the one hand, the non-science rationality of the myth of the ghost does not deprive people of agency. On the contrary, there are prescribed actions to follow to appease unrequited spirits and more generally, to protect the driver and his vehicle. These include the ritual slaughter of a white goat or a white chicken, taking prescribed herbal remedies (*muti*) and "checking passengers eyes". Fifteen drivers report carrying out one or more such rituals while seven believe there is nothing they can do to appease the spirits.

**Taxi Drivers' Perceptions of Relative Risks**



On the other hand, the finding suggests that individuals' sense of agency is conditioned by factors other than belief systems or voluntarist behaviour. Here particularly institutional and structural determinants are seen to be important. With or without their own sense of agency several drivers feel that road user behaviour and control depends on other factors, including the role of government and especially of law enforcement.

Another dimension of the problem of road risk and agency lies in the weight taxi

drivers give to road accidents relative to other perceived risks on and off the road. At least for this study population, accidents on their own do not stand out as the most commonly perceived serious personal risk. The chart shows that the largest group of respondents feels that altogether or in some combination accidents, crime and violence (hijacking, robbery and taxi disputes) and AIDS are of equal risk to them. Where respondents disaggregate risks, crime far outweighs accidents or fear of AIDS.

Largely, their hierarchy of risk seems to be informed by their sense of agency, that is, whether they feel they are able to be proactive and prevent these dangers befalling them personally or not. Where risks were specifically itemised, while only two taxi drivers felt they could do anything about hijacking, robbery and taxi violence, over a quarter (n=26) felt they could do something about accident prevention and 15 felt they could protect themselves from AIDS. With the exception of 11 drivers who felt themselves unable to do

anything about any of the risks they faced, the remainder generally said they could act to prevent or at least reduce the dangers they faced.

## THE GRIEFS THAT CAUSE ACCIDENTS

By way of conclusion, we need to go back to the initial problem, namely the extent to which science-based rationality informs social behaviour. The small studies presented here suggest interesting possibilities.

All three studies underscore that a science-based rationality is pervasive among the populations sampled. Such knowledge, be it limited or extensive, informs people's perceptions and to some extent their behaviours. This is a particularly important finding with respect to taxi drivers. Racial prejudices, assumed as well as actual cultural differences and the impact of the structure of the industry itself combine to generate a stereotype of irrational and young (as well not so young) men who are beyond reason. This data suggests otherwise.

This said, their sense of agency or ability to act in particular ways is not simply informed by voluntaristic choices. Their worries - speeding, overloading, driving vehicles that are not road worthy, working long hours - are an expression of the problems of their conditions of work, and how they earn their living. Structural constraints as well as existing social relations in the transport sector impel them to behave in a way that is contrary to how many know they should behave. Similarly with aged drivers, who have modified their patterns of road use through self- reflection, an assessment of general road conditions and changes in their lifestyle patterns. Despite the changes they have instituted, they have to enter a milieu that they "know" to be risky, and they do so because the imperatives of necessity outweigh their sense of danger.

People hold and work from non-science based rationalities and other beliefs as well as prejudices at the same time as science based rationality. These studies show that rather than implying an absence of agency, people act on other rationalities as well as irrationalities. In so doing their actions may be complementary, neutral, or indeed counter to the logic of science based rational choice.

Among taxi drivers, belief in the myth of the ghost as a cause of accidents and a general source of risk on the road is not pervasive. Moreover, acknowledging these griefs that cause accidents does not rule out agency based on the logic of science. Most of those who believe in this myth also recognise that their safety on the road is influenced by the way and conditions under which they drive. And most feel they can or might be able to do something to limit these dangers.

Ironically, age, as a social as much as a biological condition, is perceived to be a grief that causes accidents, especially with respect to young men. In all three studies the general perception of young adult drivers suggest their behaviour as road users reflects their inexperience and a measure of irrationality based on pervasive sense of infallibility and bravado.

The *Arrive Alive* campaign focuses on behavioural change through information and enforcement. These findings suggest that it needs to strengthen its' focus on agency within the logic of its science informed rationality. Simultaneously, it might do well to draw on or address existing, non-science rationalities since they inform a fairly sizeable minority of important road users. Lastly, the irrationalities of road use - be they driven by age (and masculinity) or the imperatives of "doing business" - need to be addressed through structural interventions.

## ACKNOWLEDGEMENTS

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## **CV**

Tessa Marcus is Professor of Sociology at the University of Natal, Pietermaritzburg. Her main areas of teaching and applied research are development and rural sociology. Through DoT funded Eastern Centre of Transport Development she has developed the postgraduate Sociology of Transport programme, with students at both honours and masters level. She has undertaken numerous studies working in close collaboration with engineering and bio-medical professionals. Most recently, she has completed the second stage of a panel study of long distance truck drivers in the KwaZulu-Natal Midlands for UNIARC. This is a longitudinal study of AIDS and other risks of the road as a condition of work. She is the author of two books and numerous papers.