

Poststructuralist Theory and Methodology: A Complementary Approach to Road Safety Research

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ABSTRACT

A poststructuralist qualitative approach to road safety research is outlined. The paper briefly explicates the theoretical approach and corresponding methods, indicates the type nature of data and evidence that might be produced in such research, argues the relevance of such research to road safety and provides brief illustrative examples of research data and its possible application. Poststructuralism theorises the self and the social world as socially constructed through discourse. It uses textual data as evidence of the ways individuals constitute social reality from available discursive cultural resources. This shapes understandings of validity and reliability. These understandings of the subjective mappings of self and the world, of the complex relations among discourses and of the relation of discourse to courses of action complement knowledge offered by other road safety research. Their contribution to road safety lies in their capacity to identify issues and strategic targets for policy and 'human factors' intervention, and to frame educative approaches, not indicated by other paradigms.

INTRODUCTION

Poststructuralism is one of a number of bodies of sociological theory widely diffused across social and cultural research including applied areas such as education, social work and health, where it has generated both theoretical and applied research that has effectively addressed a range of problems which proved intractable to alternative approaches. However, it has hardly been used at all in road safety research, and where it has, it has been geared to criticizing existing programs rather than informing them (e.g., Kearns & Collins, 2003). Despite this, its established value in other applied areas suggests that it is likely to have value in the field of road safety. Indeed, the author has conducted several small scale projects and analyses that point to ways it might prove useful. And there is a substantial body of 'pure' research about cultures of road use more generally (e.g., the current issue of *Sociological Review*, devoted to aspects of automobility) that provides a rich resource for researchers and practitioners to draw on.

The potential for poststructuralism to inform road safety policy and practice at present is limited by at least three critical factors. First, the lack of available research studies and, even more so, evaluated policy and practice initiatives to demonstrate its credibility in the field. Second, the complexity of the theory itself, often coupled with the obscurity of much poststructuralist writing. And third, poststructuralist methodology has little resemblance to mainstream methods in road safety research, raising critical questions about issues such as what constitutes evidence, and how issues of reliability and validity are addressed.

The paper provides an introductory account of key poststructuralist concepts, methods and issues of reliability and validity. It addresses, principally, researchers, to persuade them that the approach warrants acceptance as a legitimate method alongside existing approaches in the field. It recognizes, however, that road safety is essentially an applied field of research, and therefore also devotes some attention to questions of application. Consequently, while the paper does provide some examples of existing poststructuralist analysis and application, these are limited and relatively undeveloped, and serve to illustrate rather than demonstrate in detail what the approach 'looks like' in any detail. A more developed concrete example of the approach, looking at the issue of driver fatigue, paying more careful attention to questions of application, is found in the author's complementary paper for this conference (Vick, 2006b).

POSTSTRUCTURALISM: KEY CONCEPTS

One possible starting point for considering possible contributions of poststructuralism to road safety is its approach to problem identification. But the question of problem identification cannot be considered apart from the conceptual frameworks which shape. Two key concepts for poststructuralist research are discourse, and the subject; they are understood in such distinctive ways within poststructuralism that it is not possible to discuss poststructuralist research without some understanding of how they are used in this context.

Poststructuralism treats discourse as language in use. One aspect of this is specifically linguistic, including such aspects of language as uses of metaphor (e.g., Walkerdine, 1984) and syntax (e.g., Derrida, 1997). Meaning is established by association, through what Derrida, in particular, calls 'intertextuality', and by contrast and differentiation from other related terms (Derrida, 1978). 'Meaning' and social realities are thus constructed, rather than reflecting some underlying reality whose meaning has to be 'discovered' or 'revealed'. They are constructed largely by drawing on different combinations of existing available discourses. They include both descriptive and normative dimensions. Further, meanings are never fixed, but always being reconstructed, redefined, re-inflected, challenged and contested, and more or less subtly constantly changed. This applies to both broad fields of practice, such as 'road use', and the particular objects (such as cars) and practices (such as driving) that constitute them.

A second aspect of discourse is the practices for producing, authorizing and using knowledge. Poststructuralism sees the techniques for producing knowledge, such as road safety statistics, and establishing its credibility, for example, through the appeal to scientific methods (c.f., Foucault, 1978; Hacking, 1990), and the rules governing who can say what, about what, and under what circumstances (e.g., McHoul & Grace, 1993; Pryke, Rose & Whatmore, 2003) as crucial to the way such things as road safety can be known and understood. This is particularly critical for understanding what knowledge and hence capacities for action are *excluded* by particular ways of gathering and authorizing knowledge, and vesting responsibility for producing and using particular bodies of knowledge.

A second key concept for poststructuralism is 'the subject'. Poststructuralism treats 'the subject' as an ongoing product of discourse, through the construction of different identities individuals might take on, and through the ways individuals are manoeuvred to take up particular identities (c.f., Davies, 1994). The discourses that construct social positions also construct proper objects of desire (Grosz, 1994). People come to occupy and take up such positions *as their own* - as reflecting who they 'really are' - through techniques of self inspection and self regulation (Foucault, 1988; Haug, 1987). Taking up those positions involves the formation of appropriate (or inappropriate) desires (Deleuze & Guattari, 1988). The identities individuals come to be through these processes are not singular but multiple, and these multiplicity of identities do not necessarily sit comfortably with each other. The notion that subjects are formed partly by their own practices (such as self inspection and self regulation) is linked to understandings of strategies for government. These strategies are not about direct or physically enforced control but indirect rule through self government, by the alignment of individual goals to priorities of government (Cruikshank, 1996; Foucault, 1991; Lempke, 2000).

As I show below, these understandings of the nature of discourse and its relation to 'reality', and of 'the subject' have implications for the sorts of problems poststructuralism addresses and can illuminate, and for its methods, as well as for the light it casts on broader cultural factors shaping road safety, and the ways governments define and address road safety problems.

DATA AND METHODS

As with all sociological theoretical frameworks, theory shapes possible and appropriate objects of knowledge, possible and appropriate means of generating and analysing that knowledge, and the limits of that knowledge (Pryke, Rose & Whatmore, 2003).

The central objects of investigation for poststructuralism are discourses themselves. Consequently, the data sought will be instances of discourse. Consequently, discursive ‘data’ are not understood as ‘evidence’ of something beyond themselves; they are evidence of themselves and only themselves – no more, no less. Thus, instances of discursive practice *are* the evidence of available and mobilised discourses, rather than ‘anecdotes’ referring to something else for which there should be ‘*hard* data’ – they *are* the data (Kendall & Wickham, 1999; Søndergaard, 2002). Further, because meaning is theorized as never ‘fixed’, and because discourses in use are conceptualized as the mobilizing of available discursive resources, as constantly changing, as inconsistent if not self contradictory, and as inevitably shaped by experience, social position, values and other subjective factors, there can be no such thing as a definitive or comprehensive or even representative account of *the* discursive construction of a particular issue. The role of research and analysis, therefore, is to map the range of discourses constituting a particular field and its objects, and the ways they delimit the frameworks of understanding, and for shaping action, they make available to individual subjects.

Poststructuralist research uses verbal and visual textual data, including ‘subjective’ narratives (Kendall & Wickham, 1999; Czarniawska, 2004). Narratives are widely recognized as some of the most powerful ways in which individuals construct their understandings of themselves, their worlds and the ways the two interact, and as rich sources of the metaphors and imageries that link to desire by indicating the symbolic value and emotive ‘weight’ they attach to different objects and behaviours. Crucially, they demonstrate the complexity of the interplay of discourses, as well as points of discontinuity among them. Further, the form of narrative – epic, tragedy, romance, etc. - often makes it clear how the narrator is positioning him/herself as a social actor – as powerful agentic hero, or helpless victim of circumstance or desire.

Useful visual texts might include motor magazines of various types, television advertisements and films. Verbal texts might include a wide range of written and texts, from newspaper articles, through scientific reports, parliamentary inquiries and policy statements, to transcripts of interviews with a wide range of individuals with interest in or experience of road use. Again, these will not be taken as evidence of ‘actual’ practices, circumstances, conditions or beliefs, but of the terms in which they construct the field of road use, both descriptively and normatively.

This methodological approach shapes understandings of the reliability, validity and general ‘trustworthiness’ of the data and the analysis (Lincoln & Guba, 1985). As with all research, there is no ironclad guarantee that data generated within the research process itself (e.g., interview transcripts) are authentic. This much has to be taken on trust, with a degree of confidence in the general integrity and ethical conduct of researchers, the processes for regulating the conduct of research, and the risks of being exposed and the costs associated with exposure. With many of the textual data – films, newspaper articles, scientific papers, official reports and the like – the authenticity of the data is easily validated.

Theorists of qualitative methods have developed an array of criteria for checking what is termed the ‘trustworthiness’ of researcher-generated data and interpretation. Internal procedures include checking the accuracy of interpretations and the credibility of other data with those who populate the field under investigation. Other procedures for assessing trustworthiness rely on post-hoc checks by readers: credibility, fittingness, auditability and confirmability (Beck, 1993; Cresswell, 1997; Lather, 1996; Lincoln & Guba, 1985), as well as *prima facie* plausibility and consistency of the data. Such procedures rely on presentation of liberal examples of the textual or visual data. Thus, like other qualitative analyses, poststructuralist studies will typically include substantial direct quotations from their printed sources, visual data or interview transcripts, usually with close discussion of how the data is being interpreted. Sometimes, in the interests of transparency, and to allow readers to make their own judgement of the methods used for treating the data, this concrete discussion will be accompanied by a description of the corpus of data, and a formal, explicit account of the method of treatment of the textual material (see, e.g., Honan, Knobel, Baker & Davies, 2000; Vick, 2005). (Technically, digital publishing aids this in the case of filmic data, since sample ‘clips’ from the data can be included with the analysis.)

More recently, there has been a resurgence of interest in finding a *rapprochement* with more traditional ‘positivist’ approaches to rigour, reliability and validity, in particular through verification strategies as an integral part of the design and conduct of the research (Curti & Thompson, 2004; Johnson, 1997; Joseph, 1992; Kvale, 1989; Morse, Barrett, Mayan, Olson & Spiers, 2002; Peräkylä, 1997). Nevertheless, there remains widespread agreement that traditional quantitative and positivist tests for validity and reliability cannot apply in the same way in this context as in, say, quantitative survey research, as the nature of discourse itself means that no textual data-generating exercise (such as a semi structured narrative interview) *could* be replicated (Ezzy, 2002). Thus, rather than seeking replication, poststructuralist research seeks the *multiplication* of data, all different, to more extensively, but never definitively, elucidate the array of discursive constructions of objects of interest, and relations among them, that are available in the social world. At the same time, poststructuralist research takes a very positive view of small scale case studies, which have potential to illuminate the *sorts* of discourses that come into play in relation to particular issues and practices (such as driving), the *sorts of ways* they are combined, and the *sorts of ways* particular discourses are normalized and validated, as a model for others in recognizing how discourses might be working in other particular contexts (Merriam, 1995).

PROBLEM IDENTIFICATION AND ANALYSIS

Poststructuralist theory points to two areas of research of direct interest for practitioners: policy, and drivers’ own understandings of road use in general and of themselves as road users. Poststructuralists identify two issues of policy as potentially problematic: the terms in which policy problems and responses are formulated; and the institutional practices shaping the generation and use of relevant knowledge.

The first of these -- the terms in which policy problems and responses are formulated -- can be illustrated using the case of the Victorian inquiry into the problem of ‘vehicle-related violence’. This formulation explicitly and deliberately distanced itself from the terms in which it had come to be formulated in the popular/mass media: ‘road rage’ (Victorian Parliamentary Committee on Drugs and Crime Prevention, 2005), thus contesting that popular formulation. Thus it was able to keep to the fore a normative/legal framework which sees such violent behaviour in terms of its criminality and a view that holds individuals accountable for their actions. Simultaneously, it rejected an increasingly popular medicalised frame of reference in which actions are explained and readily excused by reference to some condition which from which the actor ‘suffers’, which undermines accountability and thus weakens the prohibitions on such behaviour.

The second of these -- the institutional practices shaping the generation and use of relevant knowledge -- can be illustrated by comparing the Queensland and NSW frameworks for addressing the policy problem of unlicensed Indigenous drivers. In Queensland, the problem this constituted was conceptualised as a problem of service delivery, with significant social justice and budgetary consequences. While an extensive research effort was made which revealed a range of broader social issues shaping Indigenous driving and licensing, the fact that it was framed from the outset by the problem of unlicensed driving meant that it provided an elaboration rather than a transformation or redefinition of the problem. The policy response, almost inevitably, was formulated in terms of a broader ‘partnership’ framework for coordinated response around better service delivery to increase the rate of licence-holding among indigenous drivers. Given this formulation the obvious lead agency was Queensland Transport. Subsequently, and within this formulation, the issue to be addressed was individual acquisition of licences. The theory highlights the ways this only indirectly addresses safety issues (via a presumed direct flow on from licence acquisition), and fails completely to address wider safety related issues such as the built-in preference for the individual private motor vehicle as the ‘normal’ mode of transportation, rather than addressing issues such as transportation infrastructure.

The NSW response to a similar issue, in contrast took the form of a broader crime prevention strategy locates and addresses the issue of unlicensed driving within a broader social justice framework and seeks not only to address individual licence holding but transport infrastructure as well as a wide range of issues to do with the relations between indigenous communities and the broader society, economy and politics. Consistent with this, the policy response was located within the Attorney General's office, framed within different policy settings and fed by different sorts of data. While not specifically a road safety policy, it embraces road safety issues, and addresses the social and cultural conditions likely to lead to high risk behaviour, on roads as well as elsewhere. While poststructuralism offers no normative judgement on these two options, it makes clear how different combinations of institutional practices (including the location of responsibility for policy issues) and the knowledge generated around them lead to quite different responses, with necessarily rather different outcomes overall, even if the road safety outcomes are identical.

The second broad area of research of interest to road safety is what is broadly understood in road safety research as 'human factors'. In contrast to much of both sociological and psychological research and theory, which takes the individual as the fundamental social category, the focus of investigation and the foundation for explanations of road use phenomena, poststructuralism takes the human subject as secondary, as the outcome rather than the origin or starting point of social processes. Consequently, rather than seeking to understand individual behaviour in terms of internal psychological dynamics, individual differences in a range of traits or cognitive capacities or the factors shaping the ways individuals internally process and respond to information about external conditions, poststructuralism seeks to explore the discourses through which road users formulate their understandings of road use in general and of themselves as road users, an approach that focuses on the ways particular objects and behaviours come to appear desirable, in relation to their own identities, rather than on cognition or rational calculation.

This, too, can be illustrated with two examples. Young male drivers are widely recognized as a key road use problem population. The problem is commonly taken to be a combination of inexperience, and characteristic behaviours, including behaviours associated with specific sets of social contextual factors (e.g., driving with peers, drinking and speeding) and, more recently, with neurological developmental timeframes (Vick, 2003). Traditional approaches characteristically identify the incidence and circumstances of high risk behaviour; insofar as they focus on explanations, they rely on immaturity, peer cultures, such dispositional attributes of adolescence as 'risk taking', and neurological underdevelopment. In contrast, poststructuralist analysis identifies the key problem for analysis as the ways young drivers understand themselves and the nature of driving for what it reveals about them. Thus, a small scale poststructuralist study of young undergraduate drivers analysed their interview narratives of long distance driving. They drew on a range of discourses to construct the task of driving itself principally in terms of technical mastery (skill) and cognitive competence (judgement), but with a minor theme of care and consideration. They represented particular drives as essentially about completion of the task and saw other drivers largely as obstacles and threats to themselves. They saw themselves as good drivers, on the basis of their technical mastery of their vehicle and driving skills, even though all provided evidence of dangerous driving, and as capable of feats of endurance in timely completion of long drives, able to overcome their own mental and physical fatigue (Vick, 2005). This contrasted with other young drivers' tacit constructions of good driving in 'street car', 'muscle car', 'hot car' and ute magazines and websites. Here, desirable driving was explicitly associated with 'extreme' (high risk) behaviour (speed, donuts, burnouts, unsecured passengers in the ute tray), with alcohol consumption, and the sexualisation of the vehicle (through both the gendered terminology for describing their vehicles and the soft-porn images and sex-related slogans that decorate them). Desirable driving was essentially recreational, with even 'functional' driving often portrayed through highly recreational imagery, and was closely tied to their identities either as rural people, or as members of one of a variety of ('rev-head') subcultures (Vick, 2004). These analyses suggest that whatever the psychological factors involved in young people driving dangerously, they are mediated by their own discursive constructions of themselves, their vehicles, and driving.

A second example can be found in risk among bicycle users (Vick, 2006a, 2006b). A widely engaged debate concerns the effect of helmet legislation. A number of studies have argued that helmet legislation reduces risk of injury by increasing helmet wearing and thus the risk of head injury in the event of a crash. Others contend that increased helmet wearing encourages riders to feel safer, and thus induces or allows them to take greater risks, thus effectively increasing their risk of crashing. Again, the core of this argument concerns inner psychological processes – rational calculations of risk – on the part of individual riders. The assumption is that if a cyclist considers something to entail only an acceptable risk, s/he will feel justified in taking that risk; if the benefits outweigh likely costs s/he may well feel almost obliged to take that risk. Poststructuralism, instead, looks at the social and cultural factors shaping understandings of both risk, the significance of risk taking, and the practices of riding themselves. Thus, my study of young Indigenous cyclists showed that they only considered issues of risk in relation to quite specific aspects of riding – aspects that involved other road users. Risk rarely entered their decision-making concerning other aspects of riding, and when it did, as it sometimes did in relation to ‘doubling’, it was marginalized by its relative unimportance in relation to culturally defined social obligations to friends and relatives. This analysis also pointed to the fact that riding itself was complexly shaped by a range of cultural values and social conditions, rather than being a simple functional activity.

Underlying poststructuralist analyses of both policy and human factors is a broad analysis of the place of road use in contemporary culture, both in terms of the socially constructed reliance on and privileging of the private motor vehicle as the preferred mode of passenger transport on large parts of the developed world, and the values associated with the motor car. While this is not necessarily directly of interest to road safety practitioners, it is crucial to establishing the contexts within which policy discourse and road user discourses are themselves shaped. Analysis of the privileged place of the private motor vehicle in western society and culture, for instance, informs the privileged place it occupies in many road safety related policies. Analysis of the privileged place of science and of the links between positivism and notions of progress illuminates the preference for psychological over sociological, and statistical or subjective narrative and other forms of textual data in forming the authoritative basis for policy formation. Analysis of constructions of masculine and feminine identities, and their inflections through different subcultures and identities (e.g., rural identities) informs the ways in which the car is taken up not only as a useful piece of machinery but as a highly symbolic object, saturated with values. Analysis of the privileging of values of competition over caring and compassion, of mind over matter, of the superiority of youth over age, of ‘man’ over the environment’, and of technical mastery informs an understanding of how young drivers are enabled to understand themselves and their driving as they do. Broader cultural analyses of youth and gender also help explain young drivers’ resistance to safe driving messages by revealing how youth and the behaviours associated with it are effectively romanticised and idolized, so that attempts to ‘curb’ youthful ‘exuberance’ are seen as negative, dull and oppressive. Moreover, the analyses it leads to, not just of youth and masculinity in general terms, but of different forms they take in different social contexts points to the complexity of the policy target group ‘young male drivers’ (see Vick, 2003, 2004; Walker, Connell and Butland, 2000).

IMPLICATIONS FOR ROAD SAFETY RESEARCH AND PRACTICE

Poststructuralism identifies familiar problems in distinctive ways, analyses them using distinctive methods and offers distinctive insights into road safety problems. This suggests the need for extensive research into the policy and human factors aspects of road safety. However, poststructuralism offers more to road safety than just directions for further research. In the field of policy, it offers insights into the ways the processes of policy formation, including the nature of the data that is used to inform policy, and the institutional and conceptual perspectives that frame policy, not only make it possible to address particular issues, but effectively preclude other potentially fruitful ways of addressing them. Further, its techniques of discourse analysis systematically draw attention to what discourses are excluded, and thus alert policy actors to alternative (strategic rather than operational) possibilities they might consider.

Theorizing subjectivity as shaped by the production and circulation of discourses of desire points to the (politically unpalatable) necessity of cutting the production and circulation of those discourses that fuel what might be described as toxic desires – in particular by the relatively identifiable and tangible car advertising industry. Less tangibly, and less easily targeted, it points to the importance of disrupting the promotion of discourses of competition, at least in so far as they are readily applied to the field of road use and the production of alternative discourses of solidarity, care and cooperation (c.f., Victorian Parliamentary Committee on Drugs and Crime Prevention, 2005, ch. 6).

Poststructuralist analysis of the ways drivers approach driving through particular understandings of their identity and of the nature of driving also identifies targets for ‘human factors’ intervention. Thus, for example, recognizing that drivers might be imagining themselves as epic heroes out to conquer the difficulties of the trip, or as competitors for scarce resources, or as finely tuned calculators of time and distance in the challenge to maximize work or leisure activity before hitting the road to make the transition to the next activity will cast light on the ways they are likely to engage in the act of driving. Even more fundamentally, if individuals imagine road use almost exclusively in terms of driving a motor vehicle, if they imagine driving in terms of a single occupant vehicle, and if this desired mode of transport is tied to potent images of value (individual rights and freedoms, for instance, or ‘the Australian way of life’) it will indicate the power of their attachment to this mode of transport. If, alternatively, their preference reflects a merely mundane calculation of a pragmatic solution to their transportation needs, they may be more easily shifted.

Poststructuralist concepts of governmentality and of technologies of the self (see p. 2 above) also offers a theoretical basis for developing such interventions in the form of powerful pedagogical strategies addressed to individual road users – strategies which go well beyond appeals to rationality, fear or morality, paralleling approaches it has already given rise to in a range of other broadly educational settings where behavior change is a priority (e.g., sexual health settings). One strategy employs deconstructive analyses to unpick the contingent discursive relations between such things as masculinity, power and the motor car, or rural masculine identities, the ute, alcohol and high risk driving (c.f., Paulsen, 1999; Davies, 1994). A second strategy, capitalising on the multiplicity of subject positions and the multiplicity of desires associated with each, aims to mobilize otherwise marginalized but positive aspects of identities (Walker, Butland & Connell, 2000). Such an approach can function in the form of ‘broad brush’ public educative strategies such as road safety advertising strategies, as in the ‘mates don’t let mates’ campaign which sought to mobilise the value of care for mates to offset the values of ‘getting drunk together. Equally, in more intensive and personalised contexts, it can be tied to strategies of building self-esteem to form effective regimes of self government (Schrodter, 2003). While, as the ‘mates don’t let mates’ campaigns indicates, such strategies might be arrived at otherwise than by poststructuralist methodologies, poststructuralism offers a more systematic and finely tuned approach to their development, and the persistence of educational materials based largely on informing road users about potential dangers and exhorting them to be safe suggests that the value of such approaches is still not widely appreciated.

While, inevitably, some advocates and practitioners of poststructuralist approaches make monopolistic claims about the priority of their approach, a more modest and defensible view claims no more than that it complements other methods and theoretical frameworks (c.f., Rorty, 1989). This recognizes that while poststructuralism might unpack self-understandings of individual road users through close, time consuming individual interviews and intimately fine-grained analysis of those interviews, or of the production and circulation of discourses about road use in, say, motor magazines or films, it will be important to be able to make reasonable estimates of how widely those discourses are taken up, or how extensively particular discursive constructions of the ‘road-user self’ are distributed across whole populations or sub populations, and how they might be connected, empirically, with actual driving practice. Determining such things requires other forms of research. But, without the sorts of theorizing, data collection and analysis that poststructuralism offers, many of these insights that require further research will not be available.

CONCLUSION

This paper has provided an introductory account of some key features of poststructuralist theory and methodology, to show how they shape problem identification in relation to road safety, with special reference to policy, on the one hand, and human factors on the other. It has illustrated how the theory and methodologies might be applied to a number of specific issues of policy and road use, and indicated how the insights from such analyses might be applied in policy and road safety educational practice. In doing so, it has sought to persuade other researchers and practitioners of the potential value of such research, especially when conducted in conjunction with more conventional methods, both as a useful, appropriate and valid research methodology and for its value in informing policy and practice.

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