TRAFFIC SAFETY CULTURE

TRAFFIC SAFETY CULTURE: DEFINITION, FOUNDATION, AND APPLICATION

EDITED BY

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Preface

Barry Watson, Nicholas John Ward, and Katie Fleming-Vogl

The Global Traffic Safety Crisis

The World Health Organization (WHO) estimates that there over 1.25 million people killed every year on the world's roads, with as many as 50 million other people injured (WHO, 2015). Without action, annual road fatalities are predicted to rise to around 1.9 million by 2030 – becoming the seventh leading cause of death (WHO, 2013). It's also important to recognize that the impact of road crashes is disproportionate across countries and different road user groups. The WHO (2015) estimates that 90% of the world's road fatalities occur in low- and middle-income countries, even though these countries only account for 53% of the world's motor vehicles. Besides the enormous human suffering caused by traffic crashes, they represent a major economic burden. Indeed, the economic losses due to road fatalities and injuries are estimated to represent 3% of GDP globally, and up to 5% of GDP in low- and middle-income countries (WHO, 2015).

In response to this global crisis, the United Nations established the *Decade of Action for Road Safety (2011–2020)*. Besides representing the first truly global response to the issue, it was supported by a Global Plan that specified a road fatality reduction target and established a framework for action around five pillars involving building road safety management capacity; improving the safety of road infrastructure and broader transport networks; further developing the safety of vehicles; enhancing the behavior of road users; and improving post-crash care (UNRSC, undated). Encouragingly, international recognition of the problem was further reinforced in 2016 when the United Nations included traffic safety within the Sustainable Development Goals (SDGs), the framework designed to drive global development efforts up to 2030 (UN Sustainable Development Platform, undated). In particular, a specific stand-alone target was included in the SDGs: *By 2020, halve the number of global deaths and injuries from road traffic accidents.*

The key strategic framework underpinning the *Global Plan for the Decade of Action for Road Safety* is the Safe System Approach (Watson, 2016). This framework is increasingly being recognized as the leading strategic perspective in road safety, underpinning the road safety strategies of many of the best-performing countries. Central to the Safe Systems Approach is the recognition of the vulnerability of humans to injury and that they inevitably make mistakes. As a consequence, the road transport system needs to be transformed to better account for human limitations and to reduce the impact of human error. At a practical level, this requires a holistic and comprehensive approach involving

improvements to vehicle safety for occupants and pedestrians, improvements to road environment safety through assessing and treating poor roads, encouraging widespread compliance with road rules and other safe behaviors, and optimizing interactions between vehicles and road users, particularly through the management of vehicle speeds. Importantly, the Safe System Approach is increasingly being recognized as the means by which countries and communities can achieve the long-term vision of zero fatalities and serious injuries on the roads.

The Need to Consider the Role of Culture in Traffic Safety

Traditional approaches to traffic safety have tended to focus on teaching safe behavior (education), punishing risky behavior (enforcement), or designing the environment to minimize crashes and/or the injuries resulting from them (engineering). However, over recent years there has been a growing awareness of the need to understand how the prevailing culture in a country influences both behavior on the roads and the way governments and the community respond to the traffic safety problem. In this respect, it can be argued that the Safe System Approach still tends to focus our traffic safety efforts too narrowly on roads, vehicles, and road users. Indeed, some researchers have argued that it needs to be strengthened by integrating it with contemporary developments in systems theory to provide a better account of the complex nature of the road transport system and the interactions involved (Salmon & Lenne, 2015). Moreover, Johnson (2014, p. 1175) has argued that:

> […] that critical elements of the safe system model are in discord with behavioural mores in the cultures of many western motorised nations and that this hampers the adoption of the most effective safety programs within key institutions and within political systems.

He argued that a systematic examination of car use and safety cultures is required to strengthen contemporary safe system thinking.

Therefore, the opportunity exists to augment both traditional and safe system approaches to traffic safety by incorporating a stronger focus on the role of culture. From a practical perspective, it offers a means of both better understanding the complex range of factors influencing behavior on the roads and of identifying innovative strategies to bring about change at the personal, community, and institutional level.

Toward a Traffic Safety Culture Paradigm

Over recent years, efforts to better understand the role of culture in traffic safety have coalesced under the umbrella term of Traffic Safety Culture (TSC). While this concept appears to have received the most attention in the United States, it is attracting growing international attention. However, the research and policy development falling under this umbrella remains relatively diffuse. It is a

relatively new area and has not yet developed a robust theoretical foundation or amassed a large body of research. Moreover, those traffic safety strategies that have applied culture-based approaches have seldom included comprehensive evaluations to validate effectiveness.

In this context, the purpose of this reference book is to provide traffic safety researchers and practitioners with an international and multidisciplinary compendium of theoretical and methodological concepts relevant to the research and application of TSC as an important step toward establishing it as a new paradigm in the field. The aim is to promote great understanding of the definitions, theoretical perspectives, research methods, and applied tools underpinning the approach.

Structure of the Book

Consistent with the above aims, the book is divided into three sections addressing:

(1) key issues involved in conceptualizing, defining, measuring, and analyzing TSC;
(2) foundational concepts for understanding and harnessing the role of TSC as an important part of the traffic safety system; and
(3) examples of strategies, methods, and tools for applying TSC to bring about traffic safety improvements.

The information presented is intended to provide practitioners with a common language and shared vision for the role of traffic safety culture to achieve a safe traffic system devoid of fatalities and serious injuries. For the academic, this information is expected to provide a theoretical framework and methodology that can support continued research to understand the various concepts underlying traffic safety culture and its use as a method to improve traffic safety. Together, we hope this book will provide readers with new insights into the way that culture can be conceptualized as both a determinant of traffic safety and engine for change.

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