

**A SYSTEMIC FUNCTIONAL - MULTIMODAL DISCOURSE ANALYSIS
OF SELECTED ROAD SAFETY AWARENESS TEXTS USED BY THE
ROAD TRANSPORT AND SAFETY AGENCY**

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requirement for the degree of Master of Arts in Linguistic Science

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Declaration

I, **Kelvin Mwelwa**, do hereby declare that the work contained in this dissertation is my own work, and that it has not been submitted for a degree at this or any other university, and that it does not include any published work or material from another dissertation except where due acknowledgement has been made.

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Approval

This dissertation of **Kelvin Mwelwa** is approved as fulfilling in part the requirement for the award of the degree of Master of Arts in Linguistic Science by the University of Zambia.

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Abstract

This study investigated the multimodal nature of texts used in road safety publicity campaigns in Zambia by the Road Transport and Safety Agency (RTSA). The study analysed the use of graphic and visual forms of semiosis in transmitting road safety information. The idea was to establish the coherence and correlation between these semiotic modes and how they are used to enact meaning in RTSA texts. In light of this, the study carried out a textual analysis of the design features of selected billboards, posters and brochures, by focusing on the choice of words, image and colour, so as to establish how the composition of these elements act as an aid or barrier to the decoding of the intended message. Due to its scope, the study employed an integrative theoretical framework. Firstly, the study applied Halliday's (1994) Systemic Functional Linguistics (SFL) theory based on the 'choices' and 'meaning potential' made in the metafunctions of language. Secondly, the study adopted Kress and van Leeuwen's (1996) text-based Multimodal Discourse Analysis (MDA) approach to reading visual images. An exploratory case study design was employed to investigate the little known aspects of road safety awareness campaigns. The study applied qualitative methods in the collection and analysis of data. The results of the study indicate that semiotic resources in RTSA texts are incoherently packaged and this negatively affects the enactment of meaning. The incoherence, in most instances, is due to the use of abstract modes as well as ungrammatical and complex linguistic constructions which require sophisticated intertextual knowledge and schemas to interpret. Additionally, the misplacement of elements in RTSA texts obscures compositional meaning. The study concludes that RTSA road safety publicity texts, in most cases, contain incoherent messages and this ultimately renders the awareness campaign somewhat ineffective.

Dedication

This dissertation is dedicated to my parents: Alfred Chiwila Mwelwa and Evelyn Kanyembo Chipota.

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List of abbreviations

RTSA	Road Transport and Safety Agency
RTAs	Road Traffic Accidents
SFL	Systemic Functional Linguistics
DA	Discourse Analysis
MDA	Multimodal Discourse Analysis
SF-MDA	Systemic Functional – Multimodal Discourse Analysis

CHAPTER ONE

INTRODUCTION

1.0 General

This chapter introduces the study which is essentially an investigation into the multimodal nature of texts used in the promotion of road safety awareness in Zambia by the Road Transport and Safety Agency (RTSA). The study analyses and evaluates the use of graphic and visual forms of semiosis in transmitting road safety information. The aim is to find out the correlation and coherence in these semiotic modes and thus, ascertain whether they effectively convey the intended meaning. The study is based on selected RTSA billboards, posters and brochures. These are analysed in terms of how the design features, including images, colour and words, impact on the interpretation of road safety messages and also how composition of such elements act as an aid or barrier to the process of decoding meaning.

1.1 Background to road safety publicity campaigns

In order to address aspects of road safety and contribute to national development, the government of the republic of Zambia established the Road Transport and Safety Agency (RTSA) through an act of parliament, the Road Traffic Act No. 11 of 2002 under the then Ministry of Communications and Transport (MCT) on 31st December (*Roadsmart Newsletter, 2012*). The purpose of the Agency was to contribute to national economic development through the implementation of Government policy on road transport, traffic management and road safety. In this regard, one of the functions of RTSA was to carry out road safety campaigns through informative education messages and general publicity. In fulfillment of this mandate, the Agency has since been implementing measures aimed at protecting the lives of all road users and their

property through conscious planning, design, engineering, road safety education and awareness as well as enforcement of road traffic regulations.

Road Traffic Accidents (RTAs) continue to pose both a public health and development challenge which invariably impedes on the national human capital development. According to a report by the *Roadsmart Newsletter (2014)*,

RTAs claim over 1000 lives every year in Zambia. The report further indicates that RTAs in Zambia are ranked the third highest cause of death after HIV/AIDS and malaria and they are the second leading cause of death for people aged between 5 and 20 years. The cost of RTAs to the national economy is estimated at about three per cent of the Gross Domestic Product (GDP). Year after year, the problem has been getting even more costly and forbidding.

It is a well-known fact that RTAs often leave a great trail of damages on people, public and private properties as well as vehicles – crippling the entire economic prospects of the country. Some critics point out limited education on road safety regulations and rules as one of the primary causes of RTAs. However, over the years RTSA and some researchers have paid attention towards road safety awareness among various target groups who include motorists, pedestrians, cyclists and children. A number of publicity campaigns have since been designed and carried out in almost every part of the country on road safety education through multimodal communication strategies. The commonest multimedia strategies employed include road shows, information check points, traditional ceremonies and billboards.

During road shows, popular local artistes are engaged to lure people to the gatherings, and in turn, the road safety team seizes the opportunity to engage them as well as distribute road safety

information. In addition, the Road Transport and Safety Agency (RTSA) provides road signs and safety texts (brochures) to help regulate traffic. These signs and texts provide navigational information; assign right of way; and warn road users of hazards. Following the Zambian Government's plan to construct a road network of 8,000 kilometres around the country called the "Link Zambia 8,000", it is important that safety is incorporated through the road design stages. There is no doubt that the need for an improved road network with adequate safety features is an essential prerequisite for road safety. Overall, RTSA is still poised with a great challenge owing to the ever-increasing cases of RTAs. The current state of affairs gives a reflection that even if road safety sensitization is conducted, there will not be any positive change. This calls for strategic interventions to be put in place. According to RTSA, the major contributing factor to increased Road Traffic Accidents (RTAs) is failure to observe road safety regulations. However, this study analyses the texts used to provide road safety education messages to various road users.

1.2 Statement of the Problem

In most of the billboards, posters and brochures used as part of road safety campaign materials, intersemiotic modes are often used to package education messages. Although these forms of media are widely used in road safety awareness campaigns, there has been negligible effort in ascertaining how this information is organised and how meaning is enacted. Little is known about the coherence of these intersemiotic resources in the packaging of road safety education messages and the ultimate meanings projected from them. To date, no study in Zambia has investigated how graphic and visual messages on road safety awareness are designed and whether or not these messages are coherently and meaningfully packaged. This study, which is

based on road safety texts, advances a general assumption that sometimes meaning-making in RTSA multimodal texts may be affected by the manner in which semiotic modes are packaged. In view of this, the present study seeks to establish how graphic and visual information is organised for road safety awareness and how meaning is enacted.

1.3 Significance of the Study

This study is significant in that, as an exploratory study, it may provide valuable data on the kinds of texts produced for road safety awareness and how road safety information is actually transmitted. The study may also show that strategic communication is not just a matter of printing large quantities of information materials such as posters and displaying colourful billboards, it entails designing and packaging of coherent messages that can bring about advocacy and behaviour change.

1.4 Purpose of the Study

The purpose of this study was to analyse graphic and visual messages on road safety awareness in RTSA billboards, posters and brochures in order to establish their correlation, and how meaning is enacted.

1.5 Objectives of the Study

The study sought to achieve the following objectives:

- (i) To carry out a textual analysis of the visual and graphic (print) information in RTSA road safety awareness texts.
- (ii) To establish whether the graphic (print) and visual information in RTSA road safety awareness texts cohere in the process of meaning-making.
- (iii) To examine the correlation between the visual and graphic information in RTSA road

safety awareness texts.

- (iv) To determine how meaning is enacted in RTSA road safety awareness texts.

1.6 Research Questions

Four (4) specific questions were set out in this study:

- (i) How is the graphic (print) and visual information organised in RTSA road safety texts?
- (ii) What is the coherence, if any, between the graphic and visual information in the process of meaning-making in RTSA road safety texts?
- (iii) What is the correlation between the visual and graphic information in RTSA road safety awareness texts?
- (iv) How is meaning enacted in RTSA road safety awareness texts?

1.7 Operational Definitions of Terms

1.7.1 Mode

In this study, the operational definition followed of the term ‘mode’ is that of Kress and van Leeuwen (2006) who say, a ‘mode’ as a socially and culturally shaped resource for semiotics which is neither physical nor material in form. They argue that in order for something to be ‘a mode’, there needs to be a shared cultural sense within a community of a set of resources and how these can be organized to realise meaning. This means that semiotic modes are shaped by the requirements, histories, and values of societies and their cultures. Graphic, audio, and visual modes are often used in combination with media and materiality to create meaning.

1.7.2 Medium

This study adopts Kress and van Leeuwen's (2006) definition of the term 'medium', which is said to be any substance in which meaning is realised and through which it becomes available to others. The term 'media' refers to the material resources through which the communication takes place. It involves production of meaningful products or communicative events which can both be materials and tools. Socially, media includes semiotic, socio-cultural, and technological practices such as film, newspaper, a billboard, poster, brochure, radio, television, theater, a classroom and so on.

1.7.3 Multimodality

In this study, the term 'Multimodality' refers to the combined use of more than one semiotic code in a communicative event; for example, the use of graphic and image in a billboard (see Kress and Van Leeuwen, 2006). A multimodal text therefore is any text whose meanings are realised through the use of more than one semiotic code.

1.7.4 Semiotics

The term 'Semiotics' in this study refers to the study of meaning-making. This includes the study of signs and sign processes (Semiosis) indication, designation, likeness, analogy, metaphor, symbolism, signification and communication. The semiotic tradition explores the study of signs and symbols as a significant part of communication. As different from linguistics, however, semiotics also studies non-linguistic sign systems such as visual images (see Kress and van Leeuwen, 1996/2006).

1.7.5 Text

Brown and Yule (1983) use ‘text’ as a verbal record of a communicative act, while Halliday and Hasan (1976) define ‘text’ as any passage spoken or written that forms a unified whole. They explain that in order for a text to be meaningful, its components have to relate to each other. In this study, the operational definition followed of the term ‘text’ is one by Halliday and Hasan (1976) who refer to it as any passage of coherent language, that is, it is a meaningful passage of language that hangs together. In other words, a ‘text’ is a semantic unit of meaning which has clauses that have contextual properties that hang together. In the case of a multimodal text, an image is also part of the text. Thus, for the purposes of the present study, a multimodal text constitutes clauses and images which have to hang together.

1.7.6 Discourse

Scholars have defined the word ‘discourse’ in various ways. There is no single definition that stands out from the others. Crystal (1992: 25) defines it as “a continuous stretch of language larger than a sentence, often constituting a coherent unit such as a sermon, argument, joke or narrative. However, the operational definition followed of the term ‘discourse’ is that of Stubbs (1983) and Cook (1989) define ‘Discourse’ as naturally occurring language or language in use which is characterized by its ability to communicate and by being recognized by the receiver as meaningful and unified. They argue that ‘Discourse’ may be written or spoken. It may consist of a single word or utterance or a series of words or utterances. It should be mentioned here that the terms, ‘text’ and ‘discourse’ could be used almost interchangeably to refer to linguistic product and linguistic process, respectively. In this particular study, ‘discourse’ refers to any coherent written stretch of language consisting of a clause.

1.7.7 Road safety

According to the road traffic regulations in Zambia, *road safety* refers to methods and measures for reducing the risk of a person using the road network being killed or seriously injured.

1.7.8 Road sign

The term road sign refers to a sign erected at the side of or above a road to give instructions or provide information to road users.

1.7.9 Motorist

The term ‘motorist’ refers to any person who drives or operates a motor vehicle on a road.

1.7.10 Cyclist

The term ‘cyclist’ refers to any person who rides a bicycle, unicycle, tricycle, quadracycles or any similar Human-Powered Vehicles (HPVs). In addition, a person who rides a bicycle or motorcycle is also called a ‘**biker**’.

1.7.11 Pedestrian

The term ‘pedestrian’ refers to a person travelling on foot, whether walking or running on a road or pavement.

1.8 Scope of the Study

The study analysed one form of communication, that is, mediated communication, by focusing on two semiotic modes, namely: graphic (print) and visual in RTSA billboards, posters and brochures used in road safety awareness campaigns. This means that awareness programmes on radio and television which involve speech and motion images were not included in the study. Furthermore, the study did not explore isolated road signs, but only those which were a part of multimodal texts used in the awareness campaign.

1.9 Motivation for the study

The study is motivated by the observation that despite efforts made by RTSA on behalf of the Zambian government to disseminate information on road safety, numbers of people dying in road traffic accidents continue to rise every year. It has become apparent, therefore, that the prevention strategies in place may be ineffective for various reasons, some of which are the focus of this research. It is assumed that road safety messages in billboards, posters and brochures are perceived or understood differently by the target groups. This assumption renders the motivation to explore how meaning is enacted in RTSA road safety awareness texts.

1.10 Structure of the dissertation

The study consists of six chapters as follows:

1.10.1 Chapter One

The first chapter introduces the study and presents the background to the problem under investigation, the statement of the problem, the significance of the study, the purpose and objectives of the study, and research questions. The chapter also provides operational definitions of key terms and concepts as well as the scope and limitations of the study and the structure of the dissertation.

1.10.2 Chapter Two

The second chapter presents a review of literature related to the present study. This includes literature on discourse analysis and multimodality.

1.10.3 Chapter Three

The third chapter outlines the theoretical and analytical frameworks applied in the study. The chapter particularly discusses an integrative framework called Systemic Functional-Multimodal Discourse Analysis (SF-MDA) by focusing on the metafunctional principles of language use and a text-based multimodal discourse analysis of the visual and graphic forms of semiosis.

1.10.4 Chapter Four

The fourth chapter discusses the research design and methodology applied in the collection and analysis of data.

1.10.5 Chapter Five

The fifth chapter presents research findings and discussions.

1.10.6 Chapter Six

The sixth chapter draws conclusions and provides recommendations for the improvement of road safety campaign materials.

1.11 Summary of Chapter One

The chapter has introduced the study by providing some background information pertaining to road safety regulation and the current status regarding Road Traffic Accidents (RTAs) in Zambia. The chapter has also provided the statement of the problem, the significance and the purpose of the study. In addition, the objectives as well as the specific questions arising from them have also been provided. The rest of the chapter has defined key terms and concepts. The next chapter presents a review of relevant literature on the subject of research.

CHAPTER TWO

LITERATURE REVIEW

2.0 General

This chapter is divided into three parts: the first part presents literature review on traditional forms of discourse analysis done within and outside Zambia; the second part presents a review of available literature on multimodality within Zambia and elsewhere; and the third part provides the conclusion on the chapter.

2.1 Some Studies on Discourse Analysis (DA) in Zambia

Most literature has been dedicated to traditional discourse analysis, which focuses on written and spoken language data (Brown & Yule, 1983; Cook, 1994; Coulthard, 1985; van Dijk, 1985; Georgakopoulou & Goutos, 1997; Halliday, 1989; Nunan, 1993; Schiffrin, 1994; Tannen, 1993). In Zambia, such studies include: Africa (1980,); Chisanga (1987); Chishimba (1979); Kapena (1985); Lawrence and Sarvan (1983); Moody (1983) and Simukoko (1977); who have examined the use of English as a language in Zambia by investigating the existence of a non – native variety of English. Mukuni (1984) and Musakabantu (1984) have focused on language in education. In these studies, the focus has been on the pedagogical implications of the use of English as a medium of instruction in non-urban Zambian schools.

The study by Tambulukani (1985) has aimed at establishing any recognizable linguistic structures in institutionalized registers of English such as business reports, law reports and civil service letters respectively, so that such structures could be taught to those training to write business and law reports and civil service letters. All these studies have focused on traditional

forms of discourse analysis which is often times devoid of other semiotic resources other than language.

Additionally, other studies have looked at descriptive analysis of English produced by Zambians in connected, naturally-occurring spoken or written discourse. For example, Kashina (1988) has looked at the distribution patterns of the noun phrase in English clause among selected university of Zambia undergraduate students' written texts, while Simwinga (1992) has examined the relationship between cohesion and coherence in the written English of University of Zambia students. Simwinga's (1992) study is based on the Discourse-as-product approach (Cook, 1989) which conceive discourse as a product of one's use of language in speech or writing and considers the text so produced as the central unit of analysis.

Simwinga's (1992) investigation establishes a relationship between cohesive density scores and cohesive harmony index scores. This relationship is viewed as statistically too weak to be causal, while at the same time it can be positive or negative in direction, and insignificant in degree. In addition, the study reveals that any incoherence in the written pieces of discourse produced by university of Zambia undergraduate students is due to factors other than the students' failure or inability to use appropriate cohesive ties.

In relation to Simwinga's study, Njobvu (2010) focuses on the relationship between thematic progression and English discourse coherence in students' written texts, in particular. Njobvu's study investigates the theme-rheme patterns used in the written pieces of discourse, and accounts for any possible variation. In this study, she reveals that themes can be related to previous themes and rhemes by means of different semantic links which include identity, synonymy, partial identity, contrast and specification. She further identifies non-adherence to thematic progression

patterns as one of the sources of incoherence in the written pieces of discourse produced by University of Zambia undergraduate students. While these studies reveal how discourse analysis can be used to establish how a text can hang together as a whole or lack thereof, none of them has addressed the concept of multimodality or indeed multimodal discourse analysis. In other words, all the studies conducted from a Discourse Analysis perspective have looked at language in isolation from other forms of semiosis which this study intends focus on.

2.2 Some Studies on Discourse Analysis (DA) outside Zambia

Beyond Zambia, discourse analysis has been applied in fields other than linguistics. For instance, in Media studies, Brambila (2011) has investigated the use of speech acts in three UK broad sheet newspapers that reported the protests over planned rises in university tuition fees in London in 2010. Based on Critical Discourse Analysis, the study has established some of the linguistic and discursive practices that constitute speech acts and their consequences for the reader and the actions they bring. The study has reviewed that while all the newspapers use speech acts in broadly similar ways, their descriptions, subject matters, lexical choices, the tone of articles, topics and political leanings vary.

Complementing traditional grammatical-historical hermeneutics, and in line with Halliday and Hasan (1976), Adams (2005) shows that cohesion may be achieved in multiple ways: in reference; in substitution and ellipsis; Conjunction of logical-semantic relations that may also be expressed structurally; Lexical cohesion by the repetition of a lexical item; use of synonym; use of a high frequency collocate [...]; or the use of a hyponym or super ordinate. The study analyses the Bible scripture: 1 John 1:5 and 2:11 as a cohesive unit. Antonette (2005) investigates the changing notions of 'text' by comparing news text in printed and electronic media. The study

establishes that not only linguistic elements are needed for a text to be communicative, but also the integration of non-linguistic visual elements and social forms of textual analysis such as the systemic functional grammar and social semiotics. In a discourse analysis of the writings of people with tattoos by Saccaggi (2007), the study reviews that tattoos have a defining or re-defining meaning of the self. They are exclusionary by nature and are linked to motivational factors. Tattooing is viewed as not only a pathological example of body change, but can also be a pro-social and effectively regulated act of communication.

2.3 Some Studies on Multimodal Discourse Analysis (MDA)

At global level, Multimodal Discourse Analysis (MDA) or multimodality has become very popular and scholarly works have since started accumulating. Yet, in Zambia multimodality, as an approach to text analysis, is a relatively new concept, thus, there is very little literature compared to more traditional forms of discourse analysis. From a Zambian perspective, the recent study by Banda and Mambwe (2013) stands out to be the only piece of work that has applied some aspects of MDA. Their study analyses Zambian popular music lyrics used in the fight against HIV/AIDS. They reveal that although male dominance is still prevalent, choices regarding sex and discussions on sexual matters are no longer a preserve for the men, and that musicians are able to use language to reframe dominant cultural practices and taboos in the process of disseminating HIV/AIDS messages. According to them, this situation has altered social conditions, which sometimes distort the intended messages, but allow musicians to operate without fear of government censorship boards or running foul of cultural taboos.

Although Banda and Mambwe's (2013) study provides insights into the theoretical application of multimodality; it differs from the present study in terms of the area of focus. The former analyses

Zambian popular music lyrics to show how language and semiotics are deliberately blended with socio-cultural artifacts and knowledge in the fight against HIV/AIDS. The latter, analyses and evaluates the use of textual and visual forms of semiosis in transmitting road safety information in selected RTSA billboards, posters and brochures. These multimedia are analysed in terms of how the design features, including images, colour and words, impact on the interpretation of road safety messages and also how composition of such elements acts as an aid or barrier to the process of decoding the meaning.

In other parts of the world, many studies have been conducted to demonstrate how non-linguistic semiotic resources are used as means of communication, for example, architecture, rhythm, and still and motion images (see Bednarek & Martin, 2008; O' Halloran, 2011; O'Toole, 2004; Kress & van Leeuwen, 2006)). Other studies have been devoted to the area of education, for example, the effectiveness of using computer-aided materials in class to raise student's interest (see Gee, 2003; Jewitt & Kress, 2003). A few have written especially on the topic of the computer as a new mode and its effects on the society as a whole (Bolter, 1991; Bolter & Gromala, 2003). The effects of multimodality in society are also discussed in works that focus on Psychology and Sociolinguistics. Multimodality in the Psychological field is discussed in Thibault (2004). These studies, however, differ from the present study because they do not involve analysis of awareness texts on billboards. They merely investigate the impact of multimodality on society.

In an article on MDA of probiotic web advertising, Koteyko and Nerlich (2007) investigate how probiotics promotion seeks to engage with the ideologically informed consumer to generate trust for their products. The article further explores the implications for shaping existing visions of the

interaction between the body and food intake. A step by step analysis of the multimodal content of the websites enabled them to show how appeals to shared values (family values, wild nature/rustic imagery and importance of good impressions) together with associations with high-tech science function in generating trust and reinforcing the discourse of healthism where individuals have the responsibility to build inner armors in their attempts to achieve optimal health. The analysis also shows how corporations seek to value-add ‘health’ and ‘naturalness’ to products to distinguish them from competitors’ products.

2.4 Some Studies on Systemic Functional –Multimodal Discourse Analysis (SF-MDA)

Recent studies on multimodal discourse analysis have adopted a systemic functional (SF) perspective just as the present study. The SF approach to MDA (henceforth SF-MDA), first introduced in Michael O’ Toole’s (2010) *The Language of Displayed Art* and Kress and Gunther; Kress and Theo van Leeuwen’s (2006) *Reading Images: The Grammar of Visual Design*, is a rapidly expanding area of research.

Halliday’s (1985) Systemic functional theory which emphasises on the metafunctions of language use: the ideational, interpersonal and textual, has been extended to semiotic resources which include visual images (O’Toole, 1994; Kress and van Leeuwen, 2006), mathematical symbolism and images (O’ Halloran, 2005), music and sound (van Leeuwen, 1999), movement and gesture (Martinec, 2004) and architecture and space (O’ Toole, 2010). The multimodal analysis of print texts (Baldry and Thibault, 2006; Kress and van Leeuwen, 2006; Martin, 1992), video texts and internet sites (Lemke, 2002) and 3-D sites (see Pang, 2004) followed. The research field has collectively been called “multimodality”, where “multimodal” typically refers to the multiple modes (e.g. spoken, written, printed and digital media, embodied action, and 3-D

material objects and sites) through which social semiosis takes place.

Halliday's SF theory provides a comprehensive framework for MDA because the metafunctional principle provides an integrating platform for multimodal theory and practice. Further publications by Djonov (2007) provide a comprehensive description and interpretation of the major developments in the evolution of the SF-MDA approach. Recent developments include multimodal transcription methodologies and "cluster analysis" involving scalar hierarchies of multimodal items which interact across different levels to construct meaning (Baldry and Thibault, 2006); corpus-based approaches to multimodal analysis (Baldry, 2004; Baldry and Thibault, 2005); the concept of semiotic metaphor and the formulation of metafunctionally-based inter-semiotic systems to help explain the expansion of meaning which takes place in multimodal discourse (see O'Halloran, 2005; 2007).

In a corpus-based study, Stewart (2009) employs tools from systemic functional multimodal discourse analysis (SF –MDA) to analyse the home pages of three English –language online newspapers. The main corpus included a total of 603 web pages, and a 'visual grammar' of home pages building on the work of Kress and van Leeuwen (2006) was developed. An emerging genre – the headline –plus-lead-plus-hyperlink website- was identified, and the design of newsbites on the home page and the evolution of their design over time was analysed. The use of images on the home pages in the corpus was analysed, and the increasing use of thumbnail. Overall, the investigation revealed that online newspaper home pages are tending towards shorter texts, which communicate in novel ways. These short texts cannot communicate the values and ideology of news institutions in the way that extended verbal texts have done for centuries, yet this function of news texts remains important to the construction and maintenance of a

readership, and therefore crucial to the homepage of a newspaper. As a result, news institutions express values visually in their design of newspaper home pages. The study concludes that as readers become familiar with the meanings of online news design, they become adept at reading and understanding short stories within these multimodally-construed frames of reference. Ideology is increasingly fragmented on shorter time scales, but expressed over long time scales in a hypermedia environment that affords and extends many of the pre-existing multimodal features of print newspaper discourse.

Similarly, Lim (2011) adopts a systemic functional multimodal discourse analysis (SF-MDA) approach to investigate pedagogical discourse. He analyses two lessons from the subject *General Paper* in a junior college in Singapore. The semiotic resources of language, gesture and the use of space through the positioning and movement of the two teachers are discussed in relation to the pedagogy that they realise. He also explores what digital media software and technological platforms can offer in the annotation, analysis and visualization of the multimodal data. He further observes that literacy is semiotic, thus learning is a semiotic act of meaning-making as observed by Thibault (2004: 303) who writes “consciousness is semiotic interpretation of phenomena”. According to Lim (2011), digital media texts such as web pages seldom rely only on the linguistic semiotic resource to convey content, images, both static and dynamic, work together with language to make meaning visually. Auditorially, the web page might also have music, which together with the interactive links invites kinesthetic exploration. Altogether, they operate to present a total multimodal experience which was previously not available from the printed book.

The epistemological implication of multimodality is that meanings in a text can no longer be assumed to be a result of a single semiotic resource. Meanings are a result of the collective semiotic resources co-deployed within the same text. For example, Roehrich (2013) has also applied SF-MDA to evaluate the application of intersemiosis in University Science Textbooks at undergraduate level. The study establishes that the integration of image and language within a single unit of discourse builds a larger meaning than the two semiotic forms are capable of producing separately. According to him, visual representations are chosen for their functional value in aiding linguistic explanation and also for their aesthetic value in textual enhancement. Aesthetic choice is a matter of subjective opinion. He adds that although science writing is generally classified as objective, authors embed personal opinion in written and visual discourse.

According to Roehrich (2013), the choice of visual medium has a profound effect on the author's linguistic choices, which he uses to influence the reader's interpretation of discourse. He concludes that not only do science textbook authors use images to evaluate in-text subjects, they reference images with heightened subjectivity; and also, use evaluative language to direct reader interpretation of the image using patterns of evaluation which is contingent upon the medium of the image and the functional relationship between image and language.

Similarly, O' Halloran (2009) has employed the SF-MDA approach in the analysis of how ideational meaning in a print advertisement is created using language and visual imagery. In his study, he investigates the linguistic and visual forms of semiosis, and formulation of cross-functional systems such as colour in printed texts. He also acknowledges the value of the use of multiple semiotic resources in discourses which range from written, printed and electronic texts to material lived-in reality. In his investigation, an integrative platform based on the SF

metafunctional principle is proposed, and intersemiotic mechanisms and systems (content and expression strata) are developed to capture the expansion of meaning which occurs when linguistic and visual forms combine. Unlike the present study which carries out a textual analysis of the visual and graphic forms of semiosis in awareness texts, O' Halloran's (2009) study applies a practical approach that uses digital technology in the form of image-editing software to give rise to a more detailed semantic and ideological interpretation.

O' Halloran's (2013) study establishes that metaphorical constructions of meaning which also include semiotic metaphors take place across linguistic and visual elements. The study emphasizes on the value of the use of multiple semiotic resources in discourses which range from written, printed and electronic texts to material lived-in reality. It further acknowledges the significance of cross-functional systems on the expression stratum which are concerned with the material basis of semiosis. In conclusion, the study advocates for: (i) the centrality of intersemiosis for understanding the nature of semantic expansions and metaphorical shifts of meaning (ii) the potential for developing new theoretical and practical approaches to SF-MDA through the use of digital technology.

Closely related to the current study, is an investigation by Bok (2010) which also employs SF-MDA. The study investigates the ever-changing trends in visual texts and images used during HIV prevention campaigns in South Africa. It evaluates and analyses the effects of multimodal texts used in HIV/AIDS campaigns on the understanding and interpretation by the target group, and thus gauge their effectiveness. The study also investigates whether socio-cultural and economic differences affect the interpretation of HIV/AIDS texts. From this investigation, the study establishes that design features of Lovelife texts (the main focus of the study) restrict the

message to a narrow urban, western and formerly-educated middle class youths rather than a broad –based national audience. Thus, in most cases, interpretation of the messages by the target group requires sophisticated intertextual knowledge and schemas of movies, gadgetry, etc. that most black people in urban townships and rural areas do not have. Although the study uses the SF-MDA just as the present study, it evaluates the effectiveness of semiotic modes in Lovelife texts used in HIV/AIDS prevention campaign. The present study, on the other hand, investigates the use of textual and visual imagery as well as other design features of RTSA texts used in road safety publicity.

Significant to the present study, is another study by Kahari (2013). This particular study investigates multimodality in two Voluntary Male Medical Circumcision (VMMC) posters used in the campaign against HIV/AIDS in Zimbabwe. The study shows how Systemic Functional Linguistics can be employed to explore the various interpretations of multimodal aspects of posters such as images, colour, text and vectors. The study reveals that posters used in male circumcision awareness campaigns do not transmit coherent and unified messages on HIV/AIDS prevention. Thus, the researcher recommends the need for more inventiveness on the part of poster designers if the fight against HIV/AIDS is to be won.

Kahari's (2013) study further shows that while the effectiveness of male circumcision in prevention of transmission of HIV from females to males has been established, its adoption by the public may face challenges if male circumcision messages are not clearly constructed. The messages in the posters which advocate for safe sex and use of condoms together with male medical circumcision seem to portray that HIV can be prevented without 'amputating' part of the penis. This could be problematic to readers as it is not clear why one would bother to get

circumcised when one still requires using other methods such as condoms. However, Kahari's study differs from the present in that, the former focuses on the interpretation of messages on HIV/AIDS prevention by the target audience, while the latter analyses how road safety education messages are organised using graphic and visual modes and how meaning is enacted.

2.5 Conclusion

This chapter has reviewed relevant literature on studies on traditional discourse analysis and multimodal discourse analysis. The chapter has further reviewed relevant studies that have adopted the systemic functional multimodal discourse analysis (SF-MDA) approach, as is the case with the present study. Notably, most of the literature that has been reviewed in this chapter has been on studies conducted outside Zambia. It is clear that a lot of work needs to be done in order to address the situation. The present study investigates the use of graphic (print) and visual imagery as semiotic modes in RTSA road safety awareness texts, and adds to the literature on multimodality. The next chapter presents the theoretical and analytical frameworks.

CHAPTER THREE

THEORETICAL AND ANALYTICAL FRAMEWORKS

3.0 General

This chapter presents both the theoretical and analytical frameworks employed in this study. The study adopts an integrative theoretical framework consisting of two approaches, namely: Systemic Functional Linguistics (SFL) and Multimodal Discourse Analysis (MDA). The study also employs a text-based MDA approach as its analytical framework.

3.1 Systemic Functional Linguistics (SFL)

Systemic Functional Linguistics is an approach to language developed mainly by Halliday (1975) for use in language education and discourse analysis. SFL is more closely aligned with Sociology. It explores how language is used in social contexts to achieve particular goals. It does not address how language is processed by the human brain, but rather looks at the discourse we produce (whether spoken or written), and the contexts of the production of these texts (O' Halloran, 2009).

According to Halliday (1975) language cannot be disassociated from meaning. He considers function and semantics as the basis of human language and communicative activity. A key concept in Halliday's approach is the "context of situation" which obtains "through a systematic relationship between social environment on the one hand, and the functional organisation of language on the other" (Halliday, 1985: 11). These two concepts are found within texts. The theory recognises that "any language use serves simultaneously to construct some aspects of experience; to negotiate relationship and to organise the language successfully so that it realises a

satisfactory message” (Christie, 2005:11). SFL is relevant for this study because it offers a descriptive and interpretative framework for explaining language and visual semiotics as strategic meaning making resources in road safety awareness texts.

3.1.1 ‘Systemic

The concept of ‘systemic’ takes language as a ‘choice potential’, with choices operating in a particular context. A systemic approach allows you to focus on meaningful choices of language (active vs. passive) without needing to think of the particular structure that realises it. The basic assumption is that “meaning implies choice” (Martin & Rose, 2003).

3.1.2 ‘Functional’

The ‘functional’ orientation of SFL focuses on the fact that “what language does (function) is more important than looking at what language is (form/structure). It views language as having several functions: Grammar is organised not only in terms of classes of units, but also in terms of function as (subject, actor e.t.c); texts are viewed as a whole as serving distinct social functions by conveying information to establish or maintain social relations; each utterance is assigned a speech function (similar to speech acts theory) such as, giving information (statement), demanding information (question), demanding action (order) and so on. Therefore, a systemic functional view of language situates modes of communication within social contexts, and takes into account the functions of language in the formation of meaning (Halliday, 1994; Martin & Rose, 2003). As a theory, SFL concentrates on the relationship between language and other elements and aspects of social life. The SFL approach to linguistic analysis is oriented to the social character of texts (Fairclough, 2004), which makes it extremely relevant to this study.

3.1.3 Metafunctions of language

The major strength of Systemic Functional Theory for this study is Halliday's (1994) metafunctional principle which provides an integrating platform for theorizing how semiotic resources and choices interact in multimodal discourses such as, road safety awareness texts to create meaning. Language is obtained as functional and not primarily as a tool to convey ideas but to also get things done and in the context of road safety, to make the target groups uphold road safety in order to avoid road traffic accidents. This also captures how language, according to Halliday (1975), has developed in response to three kinds of social-functional 'needs' which he calls metafunctions namely: ideational, interpersonal and textual which work simultaneously in a piece of text.

3.1.3.1 The ideational function

According to Halliday (1994) ideational metafunctions of language are those aspects of grammar which have a bearing on the world and its experiences as well as modality through modal auxiliaries, for example modals of obligation (must, need, should); modals of ability and possibility (can, could); modals of epistemic possibility (may, might); modals of volition and prediction (will, shall) and hypothetical modals (would, should). Halliday (1994) explains these metafunctions in "field of discourse" which he defines as the "the total event, in which the text is functioning, together with the purposive activity of the speaker or writer, and includes the subject-matter as one element in it" (Halliday, 1994:22).

3.1.3.2 The interpersonal function

This is the second metafunction of language which according to Halliday (1994) refers to the grammatical resources that act as the link between interlocutors with regards to speech-function,

exchange structure, involvement and detachment, personal reference, use of pronouns, ‘interactive items’ showing the position of the speaker (just, whatever, basically, slightly) and discourse markers (words that monitor the interaction, for example, well, might, good, so, anyway).

Within “tenor of discourse” (interpersonal), Halliday (1994) describes the people (participants) taking part in a communicative event as well as their statuses and roles, and identifies three basic factors within tenor: (i) *Agentive role*, or the institutional roles of the participants, such as RTSA/ road user; (ii) *Social role*, or the power relationship between them which may be hierarchic or non-hierarchic and also conferred social status and gender (for instance, expert/novice. In (i) the relationship is *traffic law enforcer / road user*); (c) *Social distance*, which ranges from minimal (close friends) to maximal (formal settings). For instance, in (ii), the social contact is a formal one. Rather than an either/or situation, these tenor factors exist on a cline, as may be represented here: This may also be affected by the context of culture with each factor given more or less value.

3.1.3.3 The Textual function

This is the third metafunction of language which is concerned with the grammar that organise language as a message drawing from the resources of theme, information and cohesion which, when put together, render it as a complete whole (Halliday and Hasan, 1976; Christie, 2005). Halliday and Hasan (1985) explore how language functions in certain contexts by examining the “mode of discourse” which he defines as “ the function of the text in the event, including therefore both channel taken by the language – spoken or written, extempore or prepared- and its genre or rhetorical mode, as narrative, didactic, persuasive, phatic communion and so on” . Mode

refers to what part the language is playing: the symbolic organisation of the text, the status that it has, and its function in the context. For instance, ‘commands’ are persuasive, while ‘statements’ are expository in nature.

3.2 Multimodal Discourse Analysis (MDA)

The Multimodal Discourse Analysis approach (MDA) which informs this study is built on Halliday’s three metafunctions of language: the ideational, interpersonal and textual. MDA focuses on how meaning is made through the use of multiple modes of communication as opposed to just language. According to Halliday (1978:192) ‘the grammar of a language is not a code, not a set of rules for producing correct sentences but a resource for making meanings’, and in defining social semiotics, Halliday (1978:4) writes, “we all the time exchange meanings, and the exchange of meanings is a creative process in which language is one symbolic resource—perhaps the principal one we have, but still one among others”.

In this light, Halliday’s (1978) view of ‘social semiotics’ can be seen to also apply to semiotic systems other than language such as visuals, and the relationship between context and text. Thus, van Leeuwen (2005) adopts Halliday’s language semiotic system in the context of how language interacts with other semiotic resources to create multimodal texts and extends the idea of ‘grammar’ to semiotic modes such as visuals. He further defines semiotic resources as the actions and artifacts used in communication. As such, the verbal, visual and sound semiotics that constitutes the blend are then read and analysed as ‘text’.

In explaining multimodality (how meaning is made through the use of multiple modes of communication as opposed to just language), Kress and van Leeuwen (2006) adopt the metafunctions of language to develop a grammar to ‘read images’ called ‘visual grammar’ using

representational, interactive and compositional meanings corresponding to Hallidayan terms respectively. Images on billboards and posters in this sense are representational as meanings relate to the subject; event and circumstances which take place. This means that an image has meaning derived from the context of viewing the billboard or poster in which it is displayed, whereas the intra-medium context is informed by individual and interpersonal interpretation (Roehrich, 2013).

Like sentences, images also depict processes, participants in those processes, and the circumstances in which the two are manifested (Bednarek & Martin, 2010; Martin & Rose, 2003). All of these elements directly and indirectly affect the final interpretation of meaning. The marriage of linguistic and visual image allows for one form to elaborate on, enhance, and extend the other (Halliday, 1994; O' Halloran, 2009). This is significant in that the present study will be guided in understanding how road safety texts direct reader interpretation of image, or, in the reverse situation, the image directs interpretation of text (Roehrich, 2013).

What may become evident in this study is how the image and text are combined and used as important resources for meaning-making and for actualizing the recontextualization process in road safety sensitization campaigns. The co-deployment of the written language and visual representations can evoke divergent interpretations, which in turn, can have an effect on the legitimate interpretations of a text (see Kress et al, 2006).

Three theoretical factors inform my account of multimodal communication for prevention campaigns. Firstly; material media are socially shaped to become over time meaning-making resources, to articulate the meanings demanded by the requirements of different communities. All modes have potential to make meanings differently and these meanings are not always

accessible to readers' who are not members of those communities (Oketch, 2006). Secondly, the meanings of the modes of language-as speech or language-as-writing, as of all other modes, are always interwoven with the meanings made with all other modes co-present and 'co-operating' in the communicative context. Thirdly; what is considered a 'mode' is always contingent: resources of meaning are not static or stable; they are fluid. Modes of representation and communication are constantly transformed by their users in response to the communicative needs of society; new modes are created, existing ones are transformed (Kress & van Leeuwen, 2001).

Multimodal Discourse Analysis (MDA) treats the meanings in text as 'potential' rather than as 'fixed' since meaning lies not so much individually in language or visuals but through their membership of a code referred to as 'visual grammar', which gives a text the potential to communicate meaning. Visual images can be read as 'text' while "the metaphor of grammar" is not a set of rules for the correct use of language but rather "a set of socially constructed resources for the construction of meaning" (Scollon & Scollon, 2003: 117).

3.3 Systemic Functional - Multimodal Discourse Analysis (SF-MDA)

The Systemic Functional framework, in describing language at different strata and their effects on each word produced in discourse, permits language to be observed alongside other media. Any medium of communication is subsumed under the paradigm of Systemic Functional Multimodality. Visual media produce meaning through these individual parts, combining holistically for the viewer to translate into meaning. 'Field', 'tenor', and 'mode' are the components of image meaning that create: image purpose in text; how that purpose is realised within the image itself; and how its parts come together to construct final product, respectively

(Lim, 2011; Halloran, 2009). Kress and van Leeuwen (2006) also attempt to take account of the paradigmatic features of Halliday's 'systemic grammar' by representing the various aspects of their visual grammar in terms of system networks, or networks of potential choices from which the people who create a visual can make selections. This is an attempt to capture the SFL interpretation of language as meaning potential, where interlocutors make choices from various meaning systems in the act of communicating in various contexts. By applying Halliday's (1994) concept of metafunctions to other modes beside the linguistic, Kress and van Leeuwen (2006) are clearly assuming that the visual mode draws upon the same semantic system as does language and that everything said about the semiotic code of language can be said, in terms specific to it, about the semiotic code of pictures.

Also, while visuals do differ in terms of the *choices* from the cultural semantic system that they can realise and in the ways in which these choices are realised, still the semiotic code of language and the semiotic code of pictures each have their own quite particular means of realising what in the end are perhaps quite similar semantic relations (Kress & van Leeuwen, 2006). The three elements, the interactive and represented participants, and the coherent structural elements of a visual, are correlated with Halliday's three metafunctions and may be summarised briefly as: *ideational*: a range of ways of semantically relating represented participants; *interpersonal*: a range of ways of semantically relating interactive participants; *textual*: a range of ways of semantically relating the elements on a page to each other.

What is of immediate notice is that the metafunctional terminology posited by Halliday (1994) to describe meanings at the semantic level in his SFL model have been changed from ideational to *representational* meanings, from interpersonal to *interactive* meanings, and from textual to

composition(al) meanings. The social context, or genre situates the image into a meaningful place and the image becomes included in the finished discourse, making it not a separate medium, but an integrated communication medium that works in conjunction with the linguistic text to enhance meaning (Bednarek & Martin, 2010; Lim, 2011; Martin & Rose, 2003).

The intersemiotic relationship between image and text, in which meaning is made in the semiotic space between image and text has profound implications when viewed from a Systemic Functional perspective. SFL looks at this integrated communication in order to interpret the meaning potential of an image as it is used in conveying information (O’ Halloran, 2009). Images and written texts are, in essence, the same, when viewed from the register and genre strata of communicative analysis. The two media diverge in grammar when viewed in terms of their content and formal makeup, but remain within the same semiotic space as illustrated below:

Medium/ Material		
Visual	Space Of Integration	Language
Graphics		Typography
Visual-Grammar		Lexico-Grammar
Discourse Semantics		Discourse Semantics
←Register→		
←Genre→		
←Ideology→		

Table 1: Media Integration

(Adapted from Lim, 2011)

Both visual and written communications require different semiotic grammars and conventions;

however, at higher levels of abstraction, they converge in function and meaning. Combined, they are capable of conveying meaning which is impossible to make separately. As evident from Table 1, not only do both media integrate in semiotic space, they expand this semiotic space, co-creating meaning on a much larger scale than single-mode styles of communication than either individually (Lim, 2011; Martin & Rose, 2003; O' Halloran, 2009). Figure 1 also illustrates parallel semiotic production at the discourse semantics level.

The SF-MDA, specifically in regards to the integration of text and image, allows discourse to be looked at as a whole, analysing and accounting for the meaning produced by each component of the text. This integration is called intersemiosis, which is concerned with the separate but integrated nature of image and text, and how the two work together to constitute meaning. Its counterpart, intra-semiosis, accounts for all of the elements within an image, including text which is fully integrated into the image at inception (Roehrich, 2013).

Initially, the distinction between intra- and intersemiosis is blurry in regards to linguistic elements. The reason for this difficulty in determining whether or not text is intrasemiotic or intersemiotic is due to the various ways that a picture, or text on paper with an image, can be interpreted. A whole text page, with both text and diagrams, could be interpreted to be one cohesive image, but from a micro-perspective, not all of the text references image, thus distinguishing them as separate entities.

According to Libo (2004), a multimodal analysis, focusing on images in certain situations, incorporates text as part of the image. The framework laid out in Libo's study includes title and caption in the analysis of visual communication. For purposes of intersemiotic analysis, intra textual forms embedded language, title, and caption, are all integral parts of intrasemiotic

analysis. For example, in analysing text-referential language, the caption shares more semiotic space with the image and it is the foundational context for interpreting an image.

This intra - image text stands in contrast to the intersemiotic integration of image- external text. In textbooks, this is the language used to reference an image, or referenced by the image, in larger scale writing. Image referential language is embedded in the overall organisational structure of written text (Libo, 2004). By making equivalences between graphic and linguistic analysis, the collective meaning is compounded to unveil the linguistic elements of image presentation in writing.

3.4 Analytical Framework

3.4.0 General

This section presents the analytical approaches within the frameworks of SFL and MDA that were employed in this study. According to Halliday (1994), meaning is the effect of the interplay of choices made in the *ideational*, *interpersonal*, and *textual* aspects of spoken or written texts, while a multimodal perspective equally involves attending to this interplay among the three aspects of meanings: *representational*, *interactive* and *compositional*, respectively, in each of the modes in use (Kress, 1988; Lemke, 1998). As indicated in the title of this study, the aim is to do a textual analysis of the graphic and visual modes in RTSA billboards, posters and brochures, by integrating models from the two theoretical perspectives.

3.4.1 The Text –Based Approach

SFL is very effectively organised as a tool for the analysis and interpretation of texts, spoken or written, and as such, it proves to be very effective in analysing the metafunctions of language

arising from the interaction between the producers of RTSA text and the target groups. In order to analyse language use and modes of communication in road safety texts, the study focuses on a text-based and Multimodal Discourse Analysis approach. Halliday and Hassan (1976; 1985), define a text as “any passage spoken or written that forms a unified whole”. They add that text refers to “any passage of coherent language”. In other words text refers to a meaningful passage of language “that hangs together”. Brown and Yule (1983) use “text” as a ‘verbal record of a communicative act’. In order for any text to be meaningful, its components have to relate to each other. As a semantic unit of meaning, text has clauses that have contextual properties that hang together. For the purposes of this study, the clauses and images have to hang together to be deemed coherent.

To account for the linguistic and text-based analyses of text in context, Functional Linguistics recognises that “any language use serves simultaneously to construct some aspects of experience (ideational); to negotiate relationship (interpersonal) and to organise the language successfully so that it realises a satisfactory message” (Christie, 2005:11). Functional linguistics has since developed a construct known as ‘register’, which refers to the collective term for various situational and functional aspects of a text. In other words, ‘register’ is the sum of a text’s subject matter, it’s purpose, it’s mode (essentially spoken or written), its genre (the type of text it is) and the relationship that exists between its participants (the writer or speaker and audience).

Therefore, the cohesive device of register possesses three metafunctions: (1) field (ideational), which refers to what is happening and the nature of the social action that is taking place; (2) tenor (interpersonal), which refers to who is taking part, to the nature of the participants, their status and roles and (3) Mode (textual), which refers to what part language is playing and what it

is that the participants are expecting language to do for them in the situation (Halliday, 1994).

3.4.2 Multimodal Discourse Analysis (MDA) Approach

3.4.2.0 General

This section explains the second analytical approach used in the present study: Multimodal Discourse Analysis. MDA provides effective tools for visual analysis by examining the choices made in the representational, interactive and compositional meanings of linguistic and visual modes.

3.4.2.1 Linguistic Analysis

Fairclough (2003) propose three levels of linguistic analyses: the micro-, meso- and macro – levels.

3.4.2.1.1 Micro-level

This level focuses on the discourse itself, including all forms of talk and texts, and it is divided into: ‘description’ and ‘interpretation’. Fairclough (2003: 91-116) describes the micro –level analysis as a “description” of the text, for example, “the vocabulary used, the syntax and grammar which constitute the style of writing”; and “interpretation” where the “meaning of each lexical item leads to sentence meaning, and finally to the full meaning of the whole text”.

Fairclough (2001: 120) summarises these factors as follows:

3.4.2.1.1.1 Cohesion

Cohesion refers to the formal grammatical and lexical relations that exist between two or more linguistic units in a piece of discourse. These units may be words, phrases or clauses. Cohesion is said to occur when one linguistic unit in a piece of discourse is dependent on that of another unit

within the discourse. This means that the meaning of one linguistic unit cannot be effectively decoded without reference to the meaning of another linguistic unit. Halliday and Hasan (1976) define cohesion as a set of meaning relations between elements in discourse that are crucial to the interpretation of a text. They assent to the claim that a discourse has certain linguistic features which contribute to its total unit. The main function of cohesion is to relate one part of text to another of the same text. Cohesion is the presupposition of something that has gone before in the discourse, whether in the immediately preceding sentence or not. This kind of presupposition is referred to as anaphoric and when the presupposition points forward, it is called cataphoric. Those presuppositions that refer to something outside and inside a text are called exophoric and endophoric, respectively. Endophoric presuppositions are the main cohesive relations that exist within any discourse. Five different types of cohesive devices are recognized in English. These include: reference, substitution, ellipsis, conjunction and lexical cohesion. (See Hasan and Halliday, 1976).

3.4.2.1.1.2 Coherence

Coherence refers to how the components within the text are mutually accessible and relevant. It accounts for the logical interrelatedness of ideas in a given text or piece of discourse. This relationship functions as a link between meanings of utterances in spoken discourse or sentence in written discourse to make a unified whole. The links, according to Cook (1989:9) may be based on the receiver's shared knowledge with the sender or both shared knowledge and the words and structures used. Brown and Yule (1983) relate coherence more to the 'sense' a reader makes of a text in semantic terms and whether it shows an overall unity. On the basis of this, they identify two ways of determining whether a stretch of discourse is unified or not. One is recourse to one's knowledge of the world which comprises the sender, the social convention and

situational factors such as the events and activities taking place as one reads or listens. The other is largely dependent on the reader's ability to infer language rules that operate within or between sentences (See Halliday and Hasan, 1976; Coulthard, 1985). In the context of RTSA road safety texts, coherence is understood as the logical presentation and relatedness of textual, visual imagery and other cross-functional features in. The coherence of a road safety text is dependent on how well these metafunctions are used. The Text-based MDA approach goes beyond mere linguistics into as many modes of communication as can be systematically explained.

3.4.2.1.1.3 Intentionality

'Intentionality' refers to the receiver's attitude that the set of occurrences should constitute a cohesive and coherent text instrument in fulfilling the producer's intentions.

3.4.2.1.1.4 Acceptability

'Acceptability' refers to the receiver's attitude that the set of occurrences should constitute a cohesive and coherent text, having some use or relevance for the receiver.

3.4.2.1.1.5 Informativity

Refers to the extent to which the occurrences of the text are expected opposed to the unexpected, or unknown opposed to the unknown.

3.4.2.1.1.6 Situationality

'Situationality' refers to those factors which make a text relevant to a situation or occurrence.

3.4.2.1.1.7 Intertextuality

Some information within one text is related to texts from other sources (Fairclough, 1992, 1995 and 2003). This implies texts exist in relation to others. In fact, texts owe more to other texts than

to their own makers. The concept of ‘intertextuality’ presupposes that the utilization of one text is dependent on the knowledge of previously encountered texts. This means that, to decode the meaning of the whole text, ‘presupposition of the text’ must be understood, and Fairclough’s explanation for the concept of presupposition is that “discourses and the text which occur within them have histories, they belong to historical series, and the interpretation of intertextual context is a matter of deciding which series a text belongs to, and therefore what can be taken as a common ground for participants, or presupposed” (Fairclough, 2001:127).

Texts provide contexts within which other texts may be created or interpreted. In order to make sense of RTSA road safety billboards, posters and brochures, one needs to know what to look for. Such expectations are established by reference to one’s previous experience in looking at related resources in an extended series. Once we know that we are looking for, it is easier to perceive it as intended. Modern visual material makes extensive use of intertextuality in this way. Sometimes there is no direct reference to the product at all. Bok (2010:42) writes that “instant identification of the appropriate interpretative code serves to identify the interpreter of the material as a member of an exclusive club, with each act of interpretation serving to renew one’s membership.

While the term ‘intertextuality’ would be used to refer to allusions to other texts, a related kind of allusion is what might be called ‘intratextuality’ which involves internal relations within the text. Leiss et al (1990) write that within a single code (e.g. photographic code) these would be simply syntagmatic relationships of the image of one person to another within the photograph. However a text may involve several codes: a newspaper photograph, for instance, may have a caption. Such an example reminds us that what we may choose to regard as a discrete ‘text’ for

analysis lacks clear-cut boundaries. The relationship between codes within a genre may shift over time, as Leiss et al (1990:199) note:

The growing preponderance of visuals in ads has enhanced the ambiguity of meaning embedded in message structures. Earlier advertising usually states its message quite explicitly through the medium of written text..., but starting in the mid-1920s, visual representation became more common, and the relationship between text and visual image became complementary – that is the text explained the visual.

Genette (1997) proposes the term ‘transtextuality’ as a more inclusive term than ‘intertextuality’ and lists five subtypes:

1. *Intertextuality*: quotation, plagiarism, allusion;
2. *Paratextuality*: the relation between a text and its ‘paratext’ – that which surrounds the main body of the text such as titles, headings, prefaces, epigraphs, dedications, footnotes, acknowledgements, e.t.c.
3. *Architextuality*: designation of a text as part of a genre or genres. Genette (1997) refers to designation by the text itself, but this could also be applied to its framing by readers.
4. *Metatextuality*: explicit or implicit critical commentary of one text on another text (metatextuality can be hard to distinguish from the following category);
5. *Hypotextuality*; (Genette’s term was hypertextuality): the relation between a text and a preceding ‘hypotext’ which relates to a text or genre on which it is based but which it transforms, modifies, elaborates, or extends (including parody, spoof, sequel, translation).

Some defining features of intertextuality include: reflexivity (how reflexive or self-conscious the use of intertextuality seems to be); alteration (of sources-presumably making it more reflexively

intertextual); explicitness (the specificity and explicitness of references to other texts: e.g. direct quotation, attributed quotation) (is assuming recognition more reflexively); criticality to comprehension:(how important it would be for the reader to recognise the intertextuality involved); scale of adoption (the overall scale of allusion/ incorporation within the text); and structural unboundedness (to what extent the text is presented or understood as part of or tied to a larger structure e.g. as part of a genre, of a series, of a serial, of a magazine, of an exhibition e.t.c.) – factors which are often not under the control of the text.

3.4.2.1.2 Meso –Level

This level addresses social and institutional factors which affect the creation of the text. These are summarized into two: (i) choice of language, and (ii) target audience. (See Kress and van Leeuwen, 2001). The points of view authors of texts take reflect the nature of the hidden power. Sometimes it is more complicated than the audience presupposes. For example, an article in the newspaper is not a power display of the editor but the political force that finances the newspaper (Fairclough, 2003).

3.4.2.1.3 Macro – Level

This level focuses on the ideas and social phenomenon which the texts reflect. Fairclough (2001:172) writes that “the interplay between audio –visual texts has a colonizing tendency. For instance, the fact that television is more popular helps bring about this effect because audio-visual information is so common that it has penetrated into people’s everyday life.

3.4.2.2 Visual Analysis

3.4.2.2.0 General

A visual is the result of “the convergence of many different signifying systems” (Kress & van

Leeuwen, 1996: 265). Thus, it is necessary to keep in mind that the visual systems of *Representational* (ideational), *Interactive* (interpersonal) and *Compositional* (textual) meanings occur and project their meanings simultaneously, and that they are multidimensional structures. Like sentences, which can be simple (only one clause or process), or complex visuals can also be simple or complex.

3.4.2.2.1 Representational Structures

These structures describe the ways that various kinds of visuals organise and represent their meanings representationally (ideationally). In their discussion of representational structures in the visual transitivity system, or the visual resources for representing interactions and conceptual relations between people, places and things in visuals, Kress and van Leeuwen (1996) recognise two major processes: *Conceptual and Narrative*.

3.4.2.2.1.1 Conceptual processes

Both *conceptual* and *narrative* processes represent patterns of experience and phenomena in terms of sequences of process configurations, and configurations of processes, participants, and circumstances, objects, qualities, and quantities. However, *conceptual processes* are seen to “represent participants in terms of their generalised and more or less stable and timeless essence” and “in terms of class, or structure, or meaning” (Kress & van Leeuwen, 1996: 79)

3.4.2.2.1.2 Narrative processes

These are processes or patterns that “serve to present unfolding actions and events, processes of change and transitory spatial arrangements” (Kress & van Leeuwen, 1996:56). Narrative processes therefore deal with depicted actions and events, rather than depicted states of being which have the essence of constancy and their spatial arrangements are in a sense transitory.

Within Narrative processes, Kress and van Leeuwen (1996) recognise two major kinds:

- (a) *Actional processes*: These are narrative processes in which some kind of physical action relates the represented participants. They can be non-transactional, where there is only one participant and therefore no action directed towards anyone or anything, or transactional, where there are two or more participants and something is in a sense exchanged. In this situation there is an actor, as well as a goal and a beneficiary.
- (b) *Reactional processes*: These are narrative processes in which the represented participants are characterised by a reaction, which is realised by the direction of the glance of one of the participants, the reactor. Since a reaction to something is necessarily a trait of living beings, the reactor should be human, or a human-like animal (with visible eyes and the ability to produce facial expressions). The direction or focus of this reaction (a look or gaze) follows a vector to the receiving participant or whole process, termed the *phenomenon*, and the particular nature of this reaction is encoded in the way that the reactor is looking at the phenomenon.

Kress and van Leeuwen (1996: 71-73) also recognise that there are secondary participants in many images, identified as *Circumstances*, which are defined as “participants which could be left out without affecting the basic proposition realised by the narrative pattern, even though their deletion would of course entail a loss of information”

3.4.2.2.2 Interactive Structures

These are structures which explain the social relations involving participants in a visual. Two kinds of participants are identified: *interactive participants* and *represented participants*. The former are the participants who communicate with each other via visual means (the photographer and the viewer(s) for example), and the latter are what is actually depicted in a visual (Kress &

van Leeuwen, 1996). There are various elements within the interactive structures:

3.4.2.2.2.1 Contact

Contact is concerned with the ways that images directly or indirectly address their viewers, and what they simultaneously require them to do. The situation with the *interactive participants* in viewing visuals is not dissimilar to that of the writer-reader interactive relationship, where communication is carried out orthographically. The interactive relationship which is common in visuals is one where there is an *interactive participant* (viewer) and one or more *represented participants* which have been produced for the viewer (s). Just as speech can be used to *offer* information (make a statement), which can then be agreed with or contradicted, or *demand* information (ask a question) which can be answered or disclaimed, or give a command. Kress and van Leeuwen (1996) draw a distinction between the two kinds of *image acts*:

- (a) *Visual demands*: The realisation of a *visual demand* is determined by the presence or absence of a gaze, which indicates a form of direct or indirect address to the viewer. The producer is thus using the image to act on or do something to the viewer. The *gaze* always takes the form of a vector formed by the glance of one or more of the animate represented participants outwards to the viewer of the visual. This may often be supported by some kind of physical gesture. The animate represented participant(s), which could be human or animal (mostly human), will demand something via one or more pairs of eyes looking directly at the viewer, and what is demanded by the represented participant(s) in the image depends entirely on how the look is conveyed.
- (b) *Visual offers*: With the image acts, on the other hand, there is not the requirement of the viewer to enter into some kind of imaginary social relation with the represented participants. The viewer is however asked to examine or look at the represented

participants as objects for uninvolved viewing, objects which really have no socio-relational call on the viewer. In visuals where offers are being made, the represented participants are always looking away from the viewer - there is no look being projected directly at the viewer.

3.4.2.2.2 Social Distance

Social distance is concerned with the kinds of social relations between interactants. The ways these social relations are realised in visuals portraying human represented participants are realised by the choice of a type of shot from a continuum of shots as summarised below:

FRAME SIZE	CHARACTERISTICS	SOCIAL RELATION
very close up	less than head and shoulders of subject	Intimate
close shot	head and shoulders of subject	friendly or personal
medium close	cuts off subject approximately at waist	social or 'one of us'
medium shot	cuts off subject approximately at knee level	'familiar' social
medium long	shows full figure	general social
long shot	human figure fills half image height	public, largely impersonal
very long shot	and anything beyond (wider) than half height	little or no social connection

Table 2: Size of Frame and Social Distance
(Adapted from Kress and van Leeuwen, 1996)

the above table, relationships can either be long-term types in which they may be considered as intimates, friends, colleagues, acquaintances, total strangers (or even aliens in a cultural sense), or short-term relationships which last only as long as the actual communication act, and are largely context-dependent.

3.4.2.2.3 Attitude

Kress and van Leeuwen (1996) discuss *Attitude* or 'point of view' in terms of *Perspective*.

They refer the term 'Perspective' a graphic design technique used for depicting volumes and spatial relationships on a flat surface, in such a way that the represented objects appear to the eye as a typical visible scene with respect to the viewed objects' relative positions and distance. A distinction is made between *subjective* and *objective* 'points of view'.

(a) *Subjective visuals* project a very clear distinction between the represented world, which requires most of the viewer's attention, and the frame or physical space (image features are more detailed than its background). There is a kind of designer-to-viewer relationship set up whereby the point of view of the designer, via the imposed point of view in the represented participants in the visual, is 'forced' onto the viewer. Subjective features of visuals are divided into two possible simultaneous choices which they refer to as degrees of *involvement* and *power*. In the former there can be either *involvement* or *detachment*, and in the latter there can be viewer *superiority*, *equality*, or *inferiority*. Both the categories of involvement and power are realised through various choices of visual horizontal and vertical angle, respectively.

(b) *Objective visuals* ignore the viewer and there is a disregard of any reference to the viewer in terms of who or where he or she is, or the actual time setting.

3.4.2.2.4 Modality

The final aspect that Kress and van Leeuwen (2006) examine in their discussion of interactive meanings in images is that of visual modality. Drawing once again on a linguistic interpretation, in which modality is defined as the resource used by speakers or writers to express judgements about the truth or credibility of propositions in verbal communication, they assert that various

forms of visual communication also utilise a continuum of techniques to express modality. Thus, “visuals can represent people, places and things as though they are real, as though they actually exist in this way, or as though they do not — as though they are imaginings, fantasies, caricatures etc.” (Kress & van Leeuwen, 1996:185-168; Rose, 2001: 45-49). Modality refers to the ‘reliability’ of the message, or how ‘true’ an image is. The higher the modality the more reliable or true the image is. More technical terms which analyse the ‘truthfulness’ of an image are discussed below:

3.4.2.2.2.4.1 Colour variation

The use of colour variation is an important method for expressing visual modality in that the more that colour is reduced, the lower the modality. One continuum of visual modality in colour is *colour saturation*, which relates to common standards of photographic naturalism and runs from full colour saturation to a complete absence of colour. Full colour saturation has the highest modality, while the absence of colour (i.e. black and white only) has low modality... Another scale is *colour differentiation*, which is a scale ranging from full colour differentiation in the visual to what may be termed a 'reduced palette', and then to monochrome. There is also *colour modulation*, a continuum running from modulated (using many different shades of a single colour) to a single plain, unmodulated or flat colour. The principle for all scales is the same: the more the colour is abstracted from naturalistic presentation, the lower is the modality. Maximum range of diversified colours has a higher modality than only one colour, or monochrome.

3.4.2.2.2.4.1 Contextualisation

The concept ‘contextualisation’ is used to refer to the degree to which a setting is presented in a visual. When a represented participant is shown with no setting, then it is in a sense in a void,

and is thus presented generically as a typical example of its type, rather than as something with an individuality which is peculiar in a contextual sense (Kress, 1997). In naturalistic images, the absence of context lowers the modality and there is a continuum from the presentation of a full setting to no setting. Within this continuum there are degrees of contextualisation ranging from a full contextual representation to varying degrees of de-focused settings, or settings which are under or over-exposed, thus reducing their clarity. Detailed background has a higher modality than the absence of background. At the extreme end of the continuum is the absence of setting; there is totally unmodulated colour, a black back-ground, and most commonly, a black or white background.

3.4.2.2.2.4.3 Representation Structures

These are structures which relate to the effect of differences or variations in detail between the foreground and background in a visual, and can be interpreted as a scale running from maximum abstraction to maximum representation of pictorial detail (Kress & van Leeuwen 1996:166). A visual may show the finest details of the *represented participants*, or it may show various levels of abstraction away from this detail. The effect of reduced representation or a reduction in detail in the background or setting may lead to a decrease in the modality of the setting, and concomitant increases in the modality of the foreground. More representation of pictorial detail (for example, a photograph of a motor vehicle) has a higher modality than an abstract representation (for example, a sketch of a motor vehicle).

3.4.2.2.2.4.4 Depth

More depth is generally of a higher modality than absence of depth. However, in an everyday environment, the central perspective has the highest modality than maximally deep perspective.

Degrees of lesser modality derive from this, ranging from the angular-isometric perspective, to the frontal isometric perspective, and finally to the depth created by simple overlapping.

3.4.2.2.2.4.5 Illumination

Full representation of light and shade (for example, a photograph showing a person under daylight, with all the visible parts and shadows created by light) has a higher modality than the absence of lights and shades. Also, the use of weak lights (for example, candle lights) and strong ones (e.g. light bulbs) affect the hues in the image directly. Different meanings depending on the techniques used. In naturalistic images, participants are represented in relation to the sources of illumination, with highlighting used to draw the viewers' attention to particular aspects or participants within the visual frame, while in some less naturalistic images there may be abstractions from illumination, with shadows or shading being used to allow just enough to convey the volume or shapes of objects (Kress & van Leeuwen 1996:167).

3.4.2.2.2.4.6 Brightness

Different degrees of brightness have a higher modality than just two degrees for example, black and white only, or a darker and lighter red). Colours constitute a mode "entirely distinct from language" (Kress & van Leeuwen, 2001:27). Colour serves as a semiotic device that provides cohesion (Kress & van Leeuwen, 2001: 59-62). Colours are "signifiers" instead of "signs", they signify certain ideals, and are therefore a kind of resource used in designs to create a cohesive message (Kress & van Leeuwen, 2001: 59-62).

3.4.2.2.2.4.7 Visual coding

From the above discussion of modality markers in naturalistic visuals, it follows that the determination of visual modality is "realised by a complex interplay of visual cues. The same

image may be 'abstract' in one or several dimensions and 'naturalistic' in others. There are visual contexts and their relative modalities are defined as coding orientations or “reality principles” by Kress and van Leeuwen (1996:168 -172):

- (1) *Scientific coding orientation* - the dominant principle here is the efficiency of the image as an outline or blueprint for explanation or description. The use of colour generally means a lower modality, unless it is useful in explaining the image's features more efficiently.
- (2) *Sensory coding orientation* - the dominant principle here is the provision of sensory pleasure in such contexts as visuals for art, fashion, cooking etc. The use of colour attracts high modality, and is related to the ways colours can be used to influence the viewers' emotions (as in 'hot pink', 'soothing pastels' and 'peaceful blues').
- (3) *Abstract coding orientation* - the dominant principle here is the ability to visually reduce the individual to the general, the concrete to its essential basic qualities. This is the coding used by 'educated sociocultural elites', in areas such as 'high art' and in some scientific and academic contexts etc. The ability to use this orientation is the mark of social distinction, of being an 'educated person' or a 'serious artist'.
- (4) *Naturalistic coding orientation* – is the most dominant coding which all members of the society share because they are being addressed as fellow members regardless of their education, or their social status. It is usually perceived under the “commonsense coding”, which means how a person senses modality in everyday life. An artist, for example, may perceive modality differently when viewing an abstract painting, but the perception of modality in everyday life (for example, when reading a magazine) is quite natural.

3.4.2.2.3 Composition Structures

3.4.2.2.3.0 General

These are structures which help analyse the ‘position’ of various elements and the corresponding meaning of images and texts in a discourse. The way single mode forms (as in the composition of just a single visual) and multiple mode forms (as in the composition of a text comprising one or more visuals and accompanying verbal text) may be different. The compositional features in multimodal texts are related to the principles of layout, or the “way in which the representational and interactive elements are made to relate to each other, the way they are integrated into a meaningful whole” (Kress & van Leeuwen, 1996:181). Three segments make up compositional meaning: (i) information value; (ii) framing; and (iii) salience.

3.4.2.2.3.1 Information Value

The role of any particular element in the whole depends on where it is placed. Information can be on the left’ or ‘right’, in the centre or the margin or in the upper or lower part of the picture space or page (Jewitt & Onyama, 2001). Information in the centre is considered more important than that given in the margins. Thus, there are two directions: ‘top – bottom’ (with the top being more important) and ‘left – right’ (Scollon and Scollon, 2003: 91-92). Kress and van Leeuwen (1996:203-211) provide a more detailed discussion. The ‘top’ margins (left and right) are called the ‘ideal’, while the bottoms ones are the ‘real’. Information on the left (both top and bottom margins) is treated as ‘Given information’, while that on the right is ‘New’.

In Western cultures, a common compositional structuring involves the top of a visual occupying a special place, which is the space of the ‘ideal’ or most highly valued, with the bottom of a visual occupying the place accorded to the ‘real’ or less highly valued. This *Ideal-Real* structure, (in the

same way as the *Given-New* structure) also applies to both the composition of single images as well as composite layouts involving image(s) and verbal text. Other than the *Idea-Real* and *Given-New* structures, composition of a text can be '*linear*' or '*non-linear*'. These ideas can be illustrated by the following diagram:

Margin	Top	Margin
Ideal		Ideal
Given		New
Left	Centre	Right
Real		Real
Given		New
Margin	Bottom	Margin

Table 3: Information value

(Adapted from Kress and van Leeuwen, 1996)

Traditionally, English texts are read linearly from left to right, one line after another. Nowadays, with both images and textual information given together, the reader may choose to read the image first before reading the text. In linear composition, the viewer can only read the information in one direction, and so the design of the information is less coded. The sequence of the information creates meaning. For non-linear composition, the individual elements need to be more coded. This way, no matter in what sequence the viewer reads the information, the meaning created is intact (Kress & van Leeuwen, 1996: 218-223).

3.4.2.2.3.2 Framing

The other aspect of compositional meaning discussed by Kress and van Leeuwen (1996)

applicable to the current study is that of “framing”. Framing refers to “the process through which individuals or groups make sense of their external environment (Kress & van Leeuwen, 2001: 215). Framing can connect elements or disconnect them. Framing “influences how audiences think about issues, not by making the issue more salient, but by invoking interpretive schemas (psychological frameworks) that influence the interpretation of incoming information” A billboard may, for example, have graphic information on the left and an image on the right. The image on the right would be seen as being framed, because it is separated visually from the text. The stronger an element appears to be framed, the more it is seen as a separate unit of information. If elements in a billboard or poster are presented as being connected to one another, they are seen as one piece of information.

While there seems to be many ideas and technical vocabulary for describing and analysing images, Rose (2001) proposes a simple but important way of describing an image: ‘its expressive content’. This is an abstract term for what an image tries to make its spectator ‘feel’, for example feelings of comfort or disturbance. She further argues that when there is more than one denotive meaning of an image, textual information is needed to supply one denotive meaning of the image. The graphic information is termed “anchorage” (Rose, 2001:81-82).

This is generally true, as an image may present many messages, and the text can provide the audience with clues to interpreting its most important message. However, sometimes it may be the case that the text provides various messages, for example, polysemy of lexical items is employed, and the image confirms which meaning the text refers to. One of the aims of the present study is to study such correlation between text and image.

3.4.2.2.3.3 Saliency

The third segment of compositional meaning is “salience”. It refers to how dominant an image or information is and how it draws the most attention of the viewer as shown in the following table:

SALIENCE INDICATOR	FEATURES
Size	Larger objects are more easily noticed by the eye than smaller ones.
Sharpness of focus	Objects are more clearly seen because their features are in sharp focus and are more easily noticed by the eye than those which have their features less sharply focused.
Tonal contrasts	Areas of high contrast, for example black borders placed on white spaces are higher in salience than a grey-shaded, less distinct border performing the same dividing function.
Colour contrasts	The contrasts between highly saturated colours and softer muted colours, or the contrast between red, white and blue.
Placement in the visual field	The aspect of visual ‘weight’ – objects are ‘heavier’ when close to the top and ‘heavier’ when placed on the left.
Perspective	Objects or entities placed in the foreground are visually more salient than those in the background, and elements which overlap others are more salient.

Table 4: Visual ‘clues’ for Compositional Salience

(Adapted from Kress and van Leeuwen, 1996)

While Rose (2001) does not use the same term ‘salience’, she also discusses the importance of spatial organisation in images. She calls it “geometrical perspective”, or where our eye level rests in the image (Rose, 2001: 40). Low eye level may seem to be the perspective of children, for example. “Focalizer” refers to the person who looks in a certain direction in the image. If the spectator of the image can see what the focalizer sees, we tend to identify with the image more.

3.5 Conclusion

This chapter has discussed and explained the theoretical as well as the analytical frameworks employed in this study. The study has applied an integrative theoretical framework by combining Systemic Functional Linguistics and Multimodal Discourse Analysis (SF-MDA).The

metafunctional principles of language use and a text –based multimodal discourse analysis provided the analytical framework for the study. The next chapter presents the research design and methodology used in the study.

CHAPTER FOUR

RESEARCH DESIGN AND METHODOLOGY

4.0 General

This chapter presents the research design as well as the methodology adopted in this study in terms of the specific strategies applied in collecting and analyzing the data. The investigation into the use of textual and visual imagery as semiotic modes in RTSA campaign texts is taken as an exploratory case study, and the larger context of awareness campaigns as a backdrop.

4.1 Qualitative Research

The study employed the qualitative research paradigm, which is an open approach that can be explored through many methodologies. Qualitative approaches do not use numerical data. The data are in form of words as opposed to numbers. Qualitative approaches are very effective methods in analyzing awareness texts such as billboards and posters and evaluating their effectiveness. This view is echoed by Bok (2010: 56) who writes that “qualitative data collection methods play an important role in impact evaluation by providing information useful to understand the processes behind observed results and assess changes in people’s perceptions of their well-being”. De Vos (1998: 241) further adds that “qualitative research takes the form of a holistic approach with the aim of understanding social, behavioural as well as the meaning that the people attach to their day to day activities”, and it intends for the target audience to be engaged in a naturalistic, interpretive manner (Denzin & Lincoln, 2000). This position is also supported by Lindlof and Taylor (2002) who explain qualitative research as “converging on issues of how humans articulate and interpret their social and personal interests”. Mason (2001:5) maintains that qualitative research is “systematic, rigorous, flexible, and contextual and

should be strategically conducted". Some researchers have focused on the description of qualitative research, yet others have suggested that explicit, systematic methods are used to draw conclusions and carefully test. The data can be found in words, actions, symbols, and artifacts of the target audience (Lindlof & Taylor, 2002). For this reason, qualitative methods were most appropriate to enable the data speak for itself.

The present study employed a qualitative approach as it is a method most suited for awareness campaigns in terms of describing and interpreting meaning. The researcher of course paid particular attention to the possible misinterpretation of messages, especially whether the image and graphic choices used in the texts could act as constraints during the decoding process in social contexts (Halliday & Hasan, 1985; Martin & Rose, 2003).

4.2 Research Design

The research design forms the presentation of the plan, the structure and the strategy for data analysis. A research design is a plan or alternatively a blueprint which acts as a data collection tool to investigate and analyse the research hypothesis. The present study adopted an exploratory case design to investigate the little known aspects of road safety awareness campaigns and objectives through textual analysis. Lindlof and Taylor (2002) write that an exploratory case study design examines a topic where there is very little prior research and its purpose is to elaborate a concept, build up a model or advocate propositions. In order to achieve the objectives set out in chapter one of this study, the researcher used the text-based approach and procedure, the one that is favoured by researchers in discourse analysis and multimodality (see De Beaugrande & Dressler, 1981; Kress and van Leeuwen, 1996/2006; Martin and Rose, 2003; Fairclough, 2003).

4.3 Methodology

4.3.1 Study Area and Sample Size

Most texts (billboards and posters) were drawn from public roads and highways along the line of rail between Lusaka (Lusaka Province) and Chililabombwe (Copperbelt Province) in Zambia. Other texts (brochures) were collected from the source at RTSA head office. The type of data that was collected is secondary. Secondary data involves collection of data files and printed materials, reports, books, texts from billboards and posters. For this study, the collected data included the following: (i) 4 billboards; (ii) 16 posters; (iii) and 10 brochures

4.3.2 Sampling Technique

The researcher applied non-probability or purposive sampling in the selection of relevant texts in the areas indicated. The purposeful approach enabled the researcher to access relevant texts that provided the best information for the objectives set out in the study. The power of purposive sampling lies in selecting information thus enabling researchers to target and engage only texts likely to have the required information. This is important because not all RTSA texts contain road safety awareness messages. Thus, the researcher sought those kinds of texts from which one can learn a great deal about the nature of road safety publicity, which is central to the purpose of this study.

4.3.3 Data Collection Instruments

- (i) A *digital camera* was used to take photographs of selected billboards and posters.
- (ii) A *data storage gadget* (USB device) was used to transfer ‘soft copies’ of brochures from the Road Transport and safety Agency (RTSA) computer data bank onto the researcher’s computer for analysis.

4.3.4 Data Collection Techniques

4.3.4.1 Primary Data Collection Techniques

Photographing was the main technique used to collect primary data. The researcher used a digital camera to take pictures of billboards and posters containing road safety messages.

4.3.2 Secondary Data Collection Technique

This technique involved reviewing of relevant literature pertaining to road safety texts. It also involved transfer of ‘soft copies’ of brochures from the RTSA computer data bank onto the researcher’s laptop. All the texts collected were part of the materials used by RTSA in their road safety publicity campaigns. To a less extent, the researcher applied introspection. This allowed the researcher to make use of his knowledge on road traffic regulations and road safety awareness in Zambia to select relevant texts.

4.3.5 Data Collection Procedures

The researcher personally went into the field to collect data. The data were collected from the RTSA road safety awareness campaigns of 2012 to 2015. The collected data (photographs of billboards and posters and downloaded brochures) were later uploaded onto a computer for analysis. The data collection exercise was undertaken in all the areas indicated for a period of four weeks. For the purpose of this study, data were selected according to the following criteria: (i) campaign material that was national; (ii) campaigns directed at motorists, pedestrians, cyclists and children; (iii) and campaigns where the modality of communication involved text and image.

4.3.6 Data Coding and Analysis

From the data collected, the study identified two general themes under which the road safety awareness campaign is managed by RTSA: These are:

- (i) *'Together we can save millions of people'* – for billboards.
- (ii) *'Be Road Smart. Life is precious'* - for posters and brochures.

The study further identified twelve (12) specific sub-themes transmitted in RTSA road safety messages as summarised below:

- (i) Drunk driving;
- (ii) Cellphone driving;
- (iii) Seat belt safety;
- (iv) Child safety;
- (v) Pedestrian safety;
- (vi) Cyclist safety;
- (vii) Road signals;
- (viii) Overspeeding;
- (ix) Overloading;
- (x) Vehicle fitness;
- (xi) Lane discipline; and
- (xii) General road safety.

Thus, the data were coded thematically according to the above sub-themes in relation to other functional elements contained in RTSA texts. The sub-themes served as yardsticks in analysing the coherence between the graphic and visual messages in terms of meaning-making. In the analysis of the data, the researcher's main focus was to ascertain how language and image, including design and layout, convey the theme of the text. Particular emphasis was placed on whether the designers of RTSA texts demonstrate linguistic and socio-cultural knowledge of the target groups. In this aspect, the study drew on the systemic functional Linguistics approach

(SFL) by exploring the metafunctional principles of language (tenor, field and mode) as used in a single communicative event. The SFL explores how language is used in its respective context to perform certain social functions and how language is structured as a semiotic system (Eggins, 1994; Martin & Rose, 2003). As the impact of the campaign was not something that was measured, the researcher applied this approach to identify organisational structures, dominant discourses, including power relations and ideologies underlying messages in RTSA road safety texts.

In addition, the researcher also considered the fact that meaning-making in texts largely depended on the type of text, the reader's background knowledge of the world of how language works and of how texts work, as well as the recognition of discourses and ideologies. Thus, the researcher considered intertextuality and intra-textuality as important aspects in the analysis of road safety texts. This is because producers of multimodal texts presuppose that their target audience would 'fill in the gaps' in order to decode the intended meaning. These gaps are those aspects that a reader needs to visualise, infer, predict, conceptualise and imagine as the words of a text or the image will never be able to 'tell' or 'show' everything needed for the realisation of the intended meaning. Thus, the analysis of meaning-making in RTSA texts depended on the type of text, its underlying theme and determination of the audience's interpretation of the producer's intentionality.

The researcher was also aware that there are many differences that occur with different text genres as well as with the wide range of multimodal texts. However, if meaning-making occurs as a basic process for reading all types of texts, the differences then must be related to the way different modes contribute to the process. Thus, the researcher took into account these variations

differences during the analytical processing of the data as illustrated in the table below:

READING PRINT-BASED TEXTS	READING MULTIMODAL TEXTS
Words: The words ‘tell’ including the discourse, register, vocabulary, linguistic patterns, grammar, chapters, paragraph and sentence structure	Visual images: The images ‘show’ including layout, size, shape, colour, line, angle, position, perspective, screen, frames, icons, links, hyperlinks
Use of senses: visual, some tactile	Use of senses: visual, tactile, hearing, Kinesthetic
Interpersonal meaning: developed through verbal ‘voice’ - through use of dialogue, 1st, 2nd, 3rd person narrator	Interpersonal meaning: developed through visual ‘voice’: positioning, angle, perspective – ‘offers’ and ‘demands’
Verbal style: including tone, intonation, humour, irony, sarcasm, word play, developed in the use of ‘words’. Typographical arrangement, formatting, layout, font, punctuation	Visual style: choice of medium, graphics, animation, frames, menu board, hypertext links
Verbal imagery: including description, images, symbolism, metaphor, simile, alliteration [poetic devices with words, sound patterns]	Visual imagery: use of colour, motifs, icons, repetition
Reading pathway: mostly linear and Sequential.	Reading pathway: use of vectors – sequential, non-linear. Reader has more choice and opportunity to interact.

Table 5: Reading visual and multimodal texts: how is ‘reading’ different?

(Adapted from Maureen Walsh (2003) cited in Bok (2010))

Although the differences are itemised as shown above, the researcher was aware that these do not always occur separately as many multimodal texts combine varieties of forms. In the final phase of analysis, the data were analysed qualitatively in three stages: the *first stage* involved description of visual and graphic information and other design features contained in billboards, posters and brochures; the *second stage* involved interpretation of the relationship between the discursive processes and the text; and the *third stage* provided explanation of the relationship between the discursive processes and the social processes (Fairclough, 1995:97). In line with Koller’s (2003:21) observation, ‘texts’ need to be studied in relation to their conditions of

production, reception and distribution which correlate with description, interpretation and explanation, respectively, while meaning-making involves using strategies of word recognition, vocabulary knowledge, and the recognition of graphic, morphemic and phonemic patterns (see Halliday, 1994). For proficient readers this happens unconsciously (Bok, 2010). These analytical approaches helped the researcher analyse the data and establish the correlation between graphic and visual messages and also determine how meaning is enacted in road safety education campaign materials used by the Road Transport and safety Agency (RTSA).

4.3.7 Conclusion

This chapter has provided information on the research design and methodology in terms of data collection techniques and data analysis methods. The next chapter presents research findings and discussions.

CHAPTER FIVE

RESEARCH FINDINGS AND DISCUSSION

5.0 General

This chapter presents findings and discussions on the use of graphic and visual modes of communication in RTSA texts and further determines whether individual modes are coherent enough to transmit road safety information. The chapter further examines the correlation between these semiotic modes. The study identified the following modes of communication:

- (i) textual (graphic) mode
- (ii) visual (image) mode

As such, all the findings and discussions presented in this chapter pertain to the use of these two semiotic modes. It should be mentioned from the onset that all the texts discussed in this study are multimodal (involved a combined use of the graphic and visual semiotic codes in a single communicative event) in nature.

5.1 Text and Coherence in RTSA billboards, posters and brochures

In this study, it should be mentioned that for a RTSA text to be deemed coherent, the images and clauses and other design features should ‘hang together’ and convey clear, specific and unambiguous messages as suggested by Halliday and Hasan (1976). This means that various components of a billboard, poster or brochure should communicate a unified message. This view is supported by van Leeuwen’s (2005:7) observation:

When we look at billboard and posters containing both written texts and visual images we do not understand them in sequence as text first, then image or vice versa experience’

‘experience’ them as a “single multilayered, multimodal communicative act” and all the elements form a ‘fusion’ of all the component semiotic modalities

In view of the above assertions by Halliday and Hasan (1976) on one hand, and van Leeuwen (2005) on the other, the following sections discuss text and coherence in relation to the specific sub-themes transmitted in RTSA road safety messages.

5.1.1 Drunk driving

One theme contained in RTSA texts pertains to *drunk driving*. According to the Zambian road safety regulations, it is illegal for a person with a blood alcohol level of more than 0.8 milligrams per millilitre or 80mg of alcohol per 210 litres of breath to drive a motor vehicle. This is because alcohol slows down coordination and reaction time. Furthermore, it affects decision-making, speed and distance judgments, concentration and perception, balance and alertness. Other than that, it gives a driver a false sense of confidence which may encourage risk-taking. Figure 1 is an example of a text meant to sensitise motorists on the consequences of drinking beer whilst driving.



Figure 1: Billboard on ‘Drunk driving’

The above text shows some elements of ambiguity and incoherence. The graphic mode is

misleading while the narrative in the visual is not easily decipherable to those without prior knowledge about RTSA's colour branding. The billboard was definitely meant for a specific audience who understand who the two men in the visual represent and what the question ascribed to the top of the text implies.

In terms of representational meaning, the image act has sufficient details in the foreground as well as background. To begin with, the image act is narrative and actional in nature. This is evidenced by the physical action depicted in the visual. The foreground of the visual saliently depicts two represented animate male participants wearing uniformed clothes, and one inanimate participant, a car. The two men stand one on either side of the front doors of the car which is branded in blue and green colours and an institutional logo. The background depicts night time in the city. This is evidenced by the darkness and lighting emerging from the tall buildings. The visual has a naturalistic visual coding, one which all members of the society share because they are being addressed as fellow members. From these details, it can be stated that the visual in figure 1 has a credible background, high colour variation and sufficient illumination which makes it easy for the viewers with prior knowledge to recontextualise the narrative.

In terms of social relation, the image act is a *demand* that was meant to evoke a response in the viewers. This is evidenced by the represented participants' authoritative gaze directed at the viewers. The two participants have a direct interaction with the viewers not only through the rhetoric question above the image, but also through the eye contact made with the viewers. The two men stare directly at the viewers. A *visual demand* is realised by a gaze from represented participants outwardly towards the viewers. Since the visual is audience-specific, those who lack prior knowledge are only left to speculate as to what the visual intends to communicate

especially that the image is accompanied by complex and ungrammatical linguistic constructions. At first glance, the viewers with no knowledge about RTSA colour branding and those who do not often go out in the night are left only to wonder what the image as well as the words mean.

Both the image and the graphic message at the top do not make a clear allusion to the intended theme '*drunk driving*'. The information which is closely related to the theme is not only placed at the bottom as 'Given', but also grammatically incorrect. In order to contextualise the text, the viewers need a great deal of intertextual knowledge to recognise the RTSA logo and colour branding in order to decode that the text is directed at motorists planning to go and take alcohol. This is due to the fact that alcohol is not mentioned in the text. One would also require some background knowledge in order to establish that the two men in the image are actually RTSA officials ready to go on night patrol to enforce the law.

Despite the big font and red colour used, the 'idealised' information only makes an inquiry about the viewers' plans of '*going out*' and affirmatively assures them of similar intentions by the represented participants. Important information which alludes to '*drunk driving*' is placed at the bottom of the billboard. This might actually make it difficult for the target audience, who in this case are the motorists, to interpret the meaning as they have limited time to do so. Framing requires that 'ideal information' is placed at the top of the billboard for quick access, however, that is not the case in figure 1 (See Kress et al, 1996).

Looking at the frame size, it is a medium shot where the subjects are cut off at knee level. This suggests that a 'familiar' or 'social' kind-of-relation exists between the viewers and the represented participants. There is also another indirect relationship between the interactive

participants, namely: RTSA as traffic law enforcers and the actual road users. This unequal power relation reinforces the ideological nature of recontextualisation. This is because images can create particular relations between viewers and the world inside the picture frame, which in this case amounts to viewer inferiority and producer superiority (See Kress et al, 1996).

Similarly, Halliday (1994) discusses this interaction in the interpersonal metafunctional principle of language. According to him in 'tenor of discourse', language has certain speech functions which are responsible for the negotiation or exchange of meaning between interlocutors. This assertion is also supported by Austin's (1962) *Speech Act theory* which presupposes that each time we speak we do certain things with words. Indeed, words perform certain things. In this particular context, the rhetoric expression: *GOING OUT TONIGHT? SO ARE WE* can function as a 'warning' or an 'invitation' to the road users.

However, the construction lacks lexical cohesion. The question is subjectless (not nominalised) as though it were issued in a friendly conversation. The subject is deliberately omitted and it is not clear to whom the question is directed. In addition, the 'bottom' information which attempts to make a specific reference to the theme of the text is grammatically incorrect. The use of a wrong lexicon 'loose' instead of 'lose' which literally means "not having control over oneself" renders the whole construction ambiguous and confusing.

In figure 1, information is linearly organised in a top-down and left-right structure. However, compositional meaning is affected by the misplacement of elements. The more specific and detailed information is ascribed to the bottom as 'Given' while familiar information which include the institutional logo and campaign theme are presented as 'New' information. This misplacement abstracts the audience from concentrating on the relevant information that alludes

to theme of the text. In other words, the incoherent packaging of information affects compositional meaning.

The linguistic feature of modality may be used to describe the degree of credibility of the visual in figure 1. One feature of modality is colour variation. The producers of the billboard purposefully chose the red colour for the question so as to alert the viewers of the impending danger associated with '*drunk driving*'. The red colour also reinforces their authoritative leadership. The red colour symbolizes danger and urgency as well as quick decision-making. Additionally, the darkness in the background symbolises death and evil. This also adds to the serious nature of the mood (See Kress et al, 1996).

Figure 2 presents another example of a text on '*drunk driving*'.

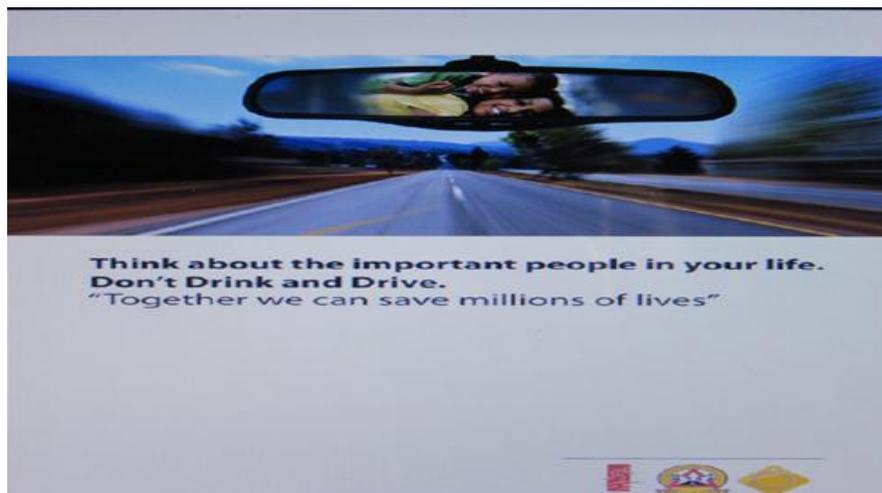


Figure 2: Billboard on '*drunk driving*'

In the above text, the visual narrative is not only ambiguous, but also confusing. There is an element of abstraction in representational meaning. The underlying theme in the text is '*drunk driving*', but alcohol is not mentioned in the text. This is because the narrative is incoherently packaged, and interpretation of its meaning demands high level cognition and prior knowledge.

At first glance, the visual depicts a blurred vision of the driver of the vehicle. The specific cause of the blurred vision is certainly not clear. Although the visual has this naturalistic coding, the process of recontextualisation seems rather difficult to those without prior experience. One would attribute the blurred vision to the '*high speed*' at which the car is moving, while another would align it to the effects of '*drunk driving*'. As a result of these mixed interpretations, the narrative is rendered ambiguous.

In addition, the fore-ground is also confusing. It is not clear whether the represented participants, the boy and the woman, are inside the car or are just imaginary. Under normal circumstances, the mirror inside the car is supposed to depict the rear view of the car which includes the road and vehicles following behind. However, from experience, one would understand that the represented participants are just an imagination of the driver who, unfortunately, is not depicted in the visual. Somehow, it was an oversight for the producers to think that the passing audience would have time to critically analyse the details of the narrative and interpret the connection between the represented participants and the theme of the text. Because of this incoherent packaging of information, the intended meaning is not easily decipherable.

In terms of interactive meaning, the image act is a *demand* that seeks a certain response from the viewers. This is evidenced by the gaze made by the represented participants towards the viewers. The gaze evokes a direct relation between the interactive (viewers) and the represented participants. Initially, the vector seems to direct the gaze towards the viewers, but realistically, it goes in the direction of the invisible driver. The interpretation, therefore, is that the viewers should position themselves as drivers. The question is: *how many viewers would interpret the visual like that?* This interpretation is definitely far-fetched for viewers with low educational

levels and even those with high education may not decode the actual meaning. It can be said that the visual mode in Figure 2 was incoherently packaged. However, with the addition of graphic information, the visual gains representational meaning and context. The information is linearly organised at the bottom as 'real' information to complement the visual mode through its interpersonal orientation resulting in two speech functions. On one hand, the statement: '*Think about the important people in your life*' offers information to the audience. In this expression, the use of the definite article '*the*' signifies the '*known*'. In essence, the statement reminds the motorists (audience) to remember their loved ones each time they are on the road. However, it is a serious gamble on the part of the producers of the text to assume that all the target audiences would know the use of 'the' in this context.

On the other hand, the use of the command: '*Don't Drink and Drive*' is a direct persuasion which indirectly reflects the unequal power relations between the audience and the producers (RTSA) of the text. Other than that, the combined use of the graphic and visual modes creates a direct interpersonal relation between the represented participants and the audience. This relation has some ripple effects on audiences' relationship with their loved ones in real life.

The other way this relationship is reinforced is through the linguistic aspect of 'attitude' where the viewer's 'point of view' is the same as that of the producer. A *subjective visual* has a more detailed foreground than its background and this can result in either *viewer- involvement* or *detachment*. In the visual in figure 2, the viewer's attention is restricted to the foreground because the background has little details. Overall, the analysis of the text in figure 2 re-affirms the co-occurrence of semiotic modes in meaning-making. This is certainly because the narrative in the visual is both ambiguous and confusing to the average audience. In road safety awareness

campaigns, the intention of the producers is to design texts whose messages can easily be decoded by the target audience driving or walking past. If the image is abstract it becomes difficult for the passers-by to quickly decipher the intended message. For example, in figure 3, both the visual and graphic modes are presented in abstraction.

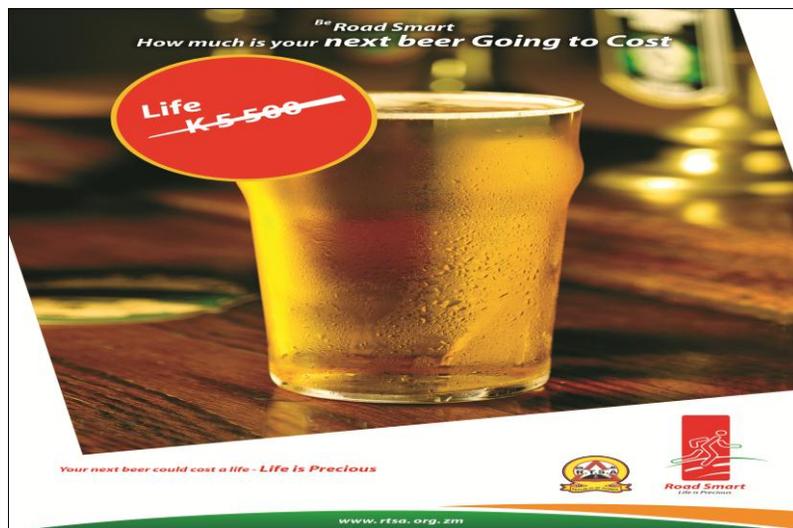


Figure 3: Poster on 'drunk driving'

The text in figure 3 was meant to convey information pertaining to *drunk driving*. However, the theme is not clearly decipherable because of the incoherently packaged modes. To begin with, the image lacks sufficient details and context for any meaningful interpretation to be made. One wonders why the producers somehow concealed the message from the average audience. Information organisation in the above text follows a western centric style of 'top-down' and 'left-right' structure while the visual is placed in the central position, the most important area of a text. Representationally, the image act depicts a narrative process that is non-transactional in nature. This is due to the fact that the visual does not involve exchange of any action as the depicted participant is inanimate. The visual saliently depicts a glass containing a golden liquid with a cancelled price tag. The image is further placed against an empty background. Besides,

the image act is an *offer* meant to provide information to the viewers. To some sections of the Zambian society, the glass and its contents is a symbolic representation of 'beer' although it is difficult to link the visual to the theme of the text. Amongst those that recognise the visual as representing beer some may view it as advertisement for beer, especially that a cancelled price tag is placed right above the image. Yet, to others who do not have any socio-cultural knowledge of this type of beer, the image may represent the various beverages on the market. Undoubtedly, the mixed interpretations that surround the visual justify the earlier assertion that the visual is abstract.

The abstraction is not only due to lack of sufficient details in the foreground for example, human participants, and a vehicle because of the absent background. Although the visual has a naturalistic coding, it lacks a credible context. The image is placed against an empty background. This however, appears to be a deliberate move by the producer to draw the attention of the viewers more on the image than its background. The foreground is seemingly more detailed than background. This entails that the producer has set a subjective perspective which has two resultant attributes of either 'involving' or 'detaching' the viewers.

Undoubtedly, an element of resentment is developed in the viewers because of the use of an ambiguous inanimate participant and also due to the fact that no action is directed at the viewers. The visual and text should always convey the message in a clear and concise manner as the audience does not always have the time or literacy level required to analyse the messages.

The image is accompanied by a cancelled price tag and the word '*Life*' written on top in white and then encircled in red, respectively. In modality terms, a mixture of colours projects mixed

messages. The colour white is angelic; it depicts purity, chastity, cleanliness and brilliance while red depicts danger (See Kress et al, 1996).

In figure 3, information is linearly arranged from 'left' to 'right' and 'top' to the 'bottom' while the image occupies the central position, which is the most important position of the text. Other than the visual mode which is abstract, the graphic mode equally does not convey a clear message on the theme of the text, as observed in the following note for small font:

[Note for small font in figure 3]



Be Road Smart
How much is your next beer Going to Cost
Your next beer could cost a life. Life is Precious

The 'idealised' (top) information has a discourse function of a 'question' demanding a response from the audience, which is already provided by virtue of the cancelled price tag and the word 'life' written on top. Notably, even if this information is read together with the visual, it does not provide sufficient details to give the visual any credible context – there is a disjuncture. The bottom information is equally abstract because it does not specify the actual circumstance in which 'beer could cost a life'. Besides the abstract visual and graphic modes used, compositional meaning in figure 3 is also obscured because the elements of a composition are misplaced. As observed in figures 1 and 2, the already known information (the institutional logo and campaign theme) is wrongly placed as 'New' while that which makes a reference to the theme is ascribed to the left as 'Given' information in very small font. The use of small font makes it rather difficult for the audience walking and driving past to read the message.

Overall, the semiotic modes used in figure 3 are incoherently packaged. This makes it rather difficult for the viewers to find the analogy between the graphic information and image, on one hand, and ‘*drunk driving*’ and ‘*loss of life*’, on the other, as suggested by the producers of this poster. In short, the narrative is inaccessible to the ordinary motorists with less cognitive abilities to be able to decode this analogy. This is because the entire text does not refer to the main theme ‘*drunk driving*’. Apart from that, the combined use of white (depicts purity) and red (depicts danger) colours projects mixed messages.

Figure 4, on the other hand, shows a more unified text in terms of the visual narrative, choice of colour and the projected message than that in figure 3.



Figure 4: Poster on ‘drunk driving’

In the poster in figure 4, the text consistently uses the red colour for the caption to project the danger associated with ‘*drunk driving*’, in line with the visual message. In terms of representational meaning, the image act is an actional narrative that is also transactional. The

animate human participant, the driver directs his action towards the car. This is shown by the action of ‘*driving*’ and the vector directing the driver’s gaze in the direction of the vehicle.

Representationally, the visual saliently depicts two represented participants, the male driver and the female passenger, both holding *brown bottles*. The man appears to have some difficulty in discerning where he is driving to, noticeable from his facial expression, while the woman on the other hand appears to be exhausted. In some sections of the *Zambian society*, a *brown bottle* is representational of alcohol. Therefore, one would only attribute the exhaustion shown by the two participants to beer drinking. This means that effective interpretation of this narrative requires knowledge about the *brown bottle*. In other words, the text is audience-specific. Apart from that, the visual has high modality. This is rendered by the detailed context provided in the foreground and sufficient illumination which makes details of the visual visible.

The graphic information in the above text is modeled on a Euro-centric tradition of ‘top-down’ and ‘left-right’ structure, while the image is ascribed to the most important area of the text, the central position. Notably, the graphic information placed at the top in form of a question complements by the visual mode as shown in the following note:

Note for small font in figure 4

Be Road Smart

How much is your **next beer Going to Cost**

Drinking will drive you to death. Life is Precious

The question appears to be directed at the represented participants holding the bottles. At interpersonal level, two kinds of relationships are projected by virtue of the discourse function of

the 'question', that is '*demanding information*'. Firstly, there is an unequal power relation between the producers (road traffic law enforcers) and the represented participants (as road users). Secondly, there is a close 'one of us' kind-of-relationship between the represented participants and the viewers because of the frame size where the subjects are cut off at waist. This relationship evokes a sense of attachment in the viewers. Most importantly, the complementary use of the visual and graphic modes brings to light one important finding; that is, the co-occurrence of modes in meaning-making. In most instances, the two modes have to be read together for any meaningful interpretation to take place. For example, the information placed at the top of the text in question form does not specifically allude to 'drunk driving' instead, it may evoke a different mental interpretation that relates to the 'cost of beer'. Equally, the information ascribed to bottom of the text does not convey a clear message.

According to the textual metafunction, the clause '*Drinking will drive you to death*' makes sense because it has both the theme '*Drinking*' and rheme '*will drive you to death*'. However, at the interpersonal level where thematic roles are interpreted, the clause becomes ambiguous. This is because; the subject '*Drinking*' is given the thematic role 'agent' while '*you*' is given the role of '*patient*'. The construction is rather ambiguous because '*drinking*' cannot perform the act of '*driving*'. However, in some cultures with limited names, '*drinking*' could be a name of a person, for example, '*Drinking Mbewe*'. In this context therefore, the word '*drinking*' could refer to a particular individual. This means that the meaning enacted in the clause is totally different from the underlying theme '*drunk driving*'. The second possible interpretation of the clause could be based on some socio-cultural inclinations. Among some sections of the Zambian society, the lexicon '*drinking*' has a connotation of '*beer*'. This means that the producers may have focused on the Zambians' connotation of '*drinking*' when designing the text. Thus, they opted to use the

word ‘*drinking*’ instead of constructing a clear and meaningful clause, for instance, ‘*Drinking beer while you drive can cause an accident*’. In other words, the complex linguistic construction renders the graphic mode incoherent.

Like the other texts already discussed, the elements of a composition are misplaced at the bottom of the text. What is presented as ‘New’ information (institutional logo and campaign theme) is already known to the audience, while that which is supposedly yet to be known is presented as ‘Given’. The misplacement of compositional elements derails the audience’s focus thereby affecting the process of meaning-making. Like in figure 4, the text in figure 5 presents on one hand, a coherently packaged visual mode depicting the female driver drinking while driving, while on the other hand, the graphic information does not cohesively transmit a clear message especially if read in isolation.



Figure 5: Poster on ‘drunk driving’

In figure 5, the image depicts a narrative event that offers information on ‘*drink driving*’ to the viewers. The visual depicts two female human participants, a driver and a passenger, both

pragmatically engaged in the act of '*beer drinking*', at least from what has been established as the symbolic meaning of the brown bottle. Unlike the image in figure 4, the visual in figure 5 is transactional in nature. The passenger offers a solidarity gesture on the idea of drinking towards the driver. This evidenced by the passenger's gaze directed at the driver. In other words, the two represented participants who are human, exchange something. Looking through the window on the other end, one would tell from the blurred background that the car is in motion. This is a clear phenomenon of contextualisation.

What is also significant is the producers' ideology towards gender equality. There is a shift from a male driver in figure 4 to a female one in figure 5. The producers avoided the stigma that would come with associating a particular gender with the theme '*drunk driving*'. This shows a gender balance in the depiction of participants. On the other hand, the images in figures 2 and 3 do not reflect any particular gender; they are instead gender-neutral.

The image act in figure 5 is an *offer* because the participants look away from the viewers. According to Kress's et al (1996) interactive function, if no *gaze* is directed at the viewers, there is no imaginary relationship with the viewer. However, the frame size contradicts this analysis. Since the subjects are cut off at the waist, it entails a close 'one of us' kind-of-relationship. This shows some inconsistency in the interpersonal as well as interactive meaning. Notably, the linguistic information in figure 5 is linearly organised from the 'left' to the 'right' and from the 'top' to the 'bottom', while the image is centrally located. The 'top' information which is in question form places a *demand* on the viewers through the question. However, there is no cohesion between the 'top' (idealised) information and that placed at the 'bottom' because of the use of an empty anaphoric reference '*that bottle*' as shown in the following note:

[Note for small font in figure 5]

Be Road Smart

How much is your **next beer Going to Cost**

That bottle can cost you a life. Life is Precious

The lexicon ‘*bottle*’ is not part of the ‘top’ information. Instead it is a reference to the image. This demonstrates the fact that graphic and visual modes co – occur in a unified text. Although there seems to be a contradiction in that the visual is an *offer* whereas the graphic message is a *demand*, the two modes complement each other in meaning-making. The *demand* expressed in question form re-affirms the unequal power relations existing between the producers and the represented participants. Additionally, the frame size draws the viewers into a close direct relationship with the represented participants, and simultaneously into an indirect relationship with the producers.

In terms of modality, the image in figure 5 exhibits a high degree of truthfulness and credibility because the event depicted is detailed and easy to contextualise. Furthermore, the use of the red colour for the caption complements the visual mode in projecting the dangers of ‘*drink driving*’. Suffice to say, both the graphic and visual modes in figure 5 complement each other in expressing the intentionality of the whole text. However at compositional level, the elements are misplaced at the bottom margin, thereby abstracting the viewers from focusing on the most relevant message.

In Figure 6, both the visual narrative and graphic information do not coherently convey the underlying theme of the text ‘*drunk driving*’. At first glance, one could be of the view that the

visual depicts a car thief, that is, a man attempting to steal a car. However, on another observation, the visual seems to depict a man trying to open the door of a car while holding a brown bottle, which when subjected to further analysis is somehow in line with the theme of the text, ‘*drunk driving*’.

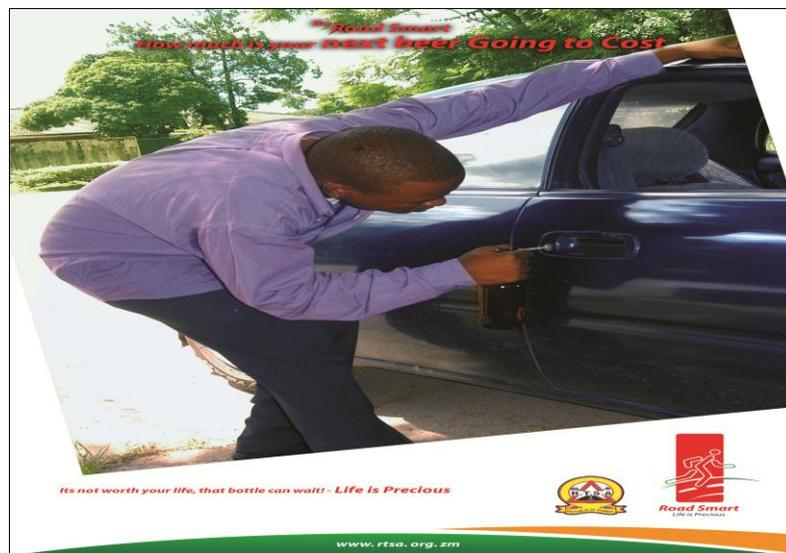


Figure 6: Poster on ‘drunk driving’

In terms of representational meaning, the visual in figure 6 depicts a narrative process that is transactional in nature. The animate human participant, a man holding a brown bottle, directs his action towards an inanimate object, a car. The man cannot stand steadily. With his left hand resting on the roof of the car, he tries to open the door with his right hand whilst holding a brown bottle. Apart from being a transactional, the visual act has characteristics of a *visual offer*. This is because the represented participant stares away from the viewers, and neither does he direct his action towards them. As already mentioned in this study, in order to decipher the meaning of this visual one needs to have some knowledge of the socio-cultural connotations associated with the ‘*brown bottle*’. However, it is worth observing that the symbolic meaning associated with the ‘*brown bottle*’ may differ from society to society. Societies have different cultural practices and

ways of making meanings. This means that the symbolic meaning of a *brown bottle* is not constant especially in some places where people do not use this kind of bottle to package beer, and more so to foreigners driving on *Zambian roads*. They may not associate a *brown bottle* with beer. Therefore, to assume that a *brown bottle* always denotes ‘beer’ is a serious gamble on the part of the producers.

As observed in the previous texts, the visual in figure 6 occupies the most important position in the text; that is the central position, while the graphic information is linearly organised in a ‘top-down’ and ‘left-right’ structure. Despite this arrangement, the graphic mode is incoherently packaged, therefore it does not convey the intended message when read in isolation as shown in the following note:

[Note for small font in figure 6]

Be Road Smart

How much is your next beer Going to Cost

Its not worth your life, that bottle can wait. Life is Precious.

The above graphic information has two discourse functions. On one hand, the top (idealised) information is a question meant to evoke a response in the audience. The question appears to be directed at the represented participant struggling to open the door of the car with a bottle in his hand. Although the question is ‘idealised’ it does not make a clear allusion to the theme of the text when read in isolation. On the other hand, the information placed at the bottom of the text is grammatically incorrect.

The first clause lacks cohesion because of the use of a wrong lexicon '*its*'. One wonders whether it was an oversight or a deliberate move on the part of the producers. The use of the possessive pronoun *its* instead of the contracted form *it's* renders the meaning-making process ambiguous. Equally, the bottom information does not convey a clear meaning. This is because the problematic word *its* which is the subject of the first clause is made to make a cataphoric reference to the subject of the following clause, '*That bottle*'. This anomaly makes the entire construction too complicated for any meaningful interpretation to take place. Overall, the graphic mode only attempts to make sense when read together with the visual. This re-affirms the fact that in RTSA texts semiotic modes need to co-occur in order to convey a unified message.

In terms of compositional meaning, the lay-out of information, especially at the bottom of the text does not guarantee a unified meaning. As noted in other texts, already 'known' information (the institutional logo and campaign theme) is presented as 'New' information, while that which is yet to be known is placed on the left side as 'Given' information. This mix-up of elements affects composition meaning because the most significant information might be ignored, especially that the font is almost invisible to the audience.

As pointed out by Kress and van Leeuwen (1996), information values in texts are realised by the right placement of elements of a composition. This means the role of a particular element depends on its location in the text. Away from the misplacement of elements, the visual exhibits a high sense of modality. This is due to the sufficient brightness which makes the foreground and background quite elaborate. The brilliant colour variation and illumination make the trees clearly visible in the background. The presence of these factors makes the process of recontextualisation easy.

However, in terms of social relations, the frame size does not convey the projected relationship between the viewers and the represented participants. As a matter of fact, the viewers should be engaged in a close direct relationship with the participants represented. However, the frame size shows a full figure of the human participant which represents a ‘general social’ relationship. The projected distant and impersonal relation can potentially detach the viewer from identifying oneself with the represented participant. This might defeat the purposes for which the text was created.

Figure 7 is an example of a text whose graphic mode on one hand is coherently packaged, while on the other, the visual mode is both abstract and complex due to the use of animations and sophisticated symbols.

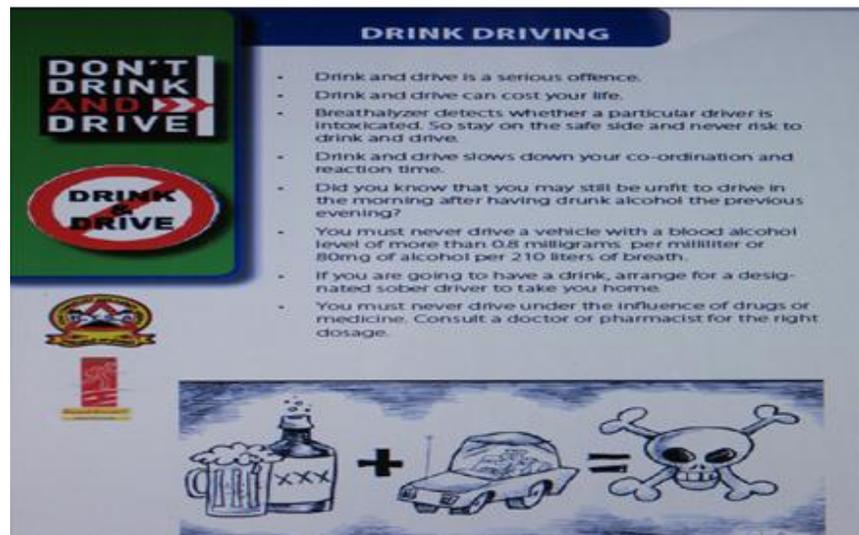


Figure 7: Brochure on ‘drunk driving’

Typical of most brochures, the text in figure 7 is loaded with detailed information to explain the theme *drunk driving*. In terms of organisation, the graphic information is placed at the top of the visual, while other elements which include signs and institutional logos are rightly presented as ‘Given’ information on the left. However, the representational meaning in the above visual is not

clear. The visual depicts animated participants in an equation involving both scientific and mathematical symbols. The complex visual information suggests that the producers had a specific audience, those with prior knowledge or educated ones.

In modality terms, the visual lacks credibility and truthfulness. Firstly, the visual is placed against a void background with no details. Secondly, the visual lacks sufficient illumination to make the details of the visual discernable. Thirdly, the low modality of the visual is also rendered by the low colour saturation. In support of this observation, Kress and van Leeuwen (1996) write that the absence of colour, particularly the use of white and black, gives a visual low modality. Amidst these factors, it is difficult for the viewers to recontextualise the visual and decipher the theme of the text.

Additionally, the visual has a rare coding which requires scientific intertextual knowledge. This type of coding can act as a barrier to meaning-making because not all motorists have attained the needed level of cognition and education to interpret the symbols. Not only that, the visual depicts a conceptual process which also sets an 'objective' point of view. Objective visuals ignore the viewer's perspective and there is a disregard of any reference to the viewer in terms of who or where he or she is, or the actual time setting (See Kress et al, 1996).

The producers have not set a perspective with which to interpret the image. The audiences are expected to objectively analyse the details of the visual in order to interpret the intended message. As a result of these factors, motorists without prior knowledge cannot easily recontextualise the visual. It should however be realised that visual messages meant for awareness campaigns should contain subjective features which can enhance a shared interpretation of meanings.

In terms of *interactive meaning*, the visual act is an *offer* meant to provide information, while the graphic mode sets a set of *demands* (through directives and commands) to engage the audience. In another way, the use of persuasive language engages the interactive participants (the producers and the audience) into an impersonal relationship that reflects the unequal power relations existing between them. In the ‘tenor of discourse’ by Halliday (1994), this relationship can be described as that of *law enforcer/law breaker*.

As already indicated, the visual has low modality. The use of complex symbols and animated participants rather than real ones affects the truthfulness and credibility of the text. This consequently detaches the audience because such texts are devoid of experiential reality which is a fundamental aspect of qualitative programmes like road safety publicity campaigns. In other words, use of animations may create viewer resentment which has ripple effects on the objectives of the campaign.

5.1.2 Cellphone use while driving

‘Cell phone driving’ is another theme contained in RTSA texts. According to the Zambian road safety regulations, it is illegal to use a hand-held phone to text or call whilst driving because both activities cause a dangerous distraction. Motorists are only obliged to use a hands-free kit to answer a phone call, but a third of drivers flout this law.

Figure 8 depicts a narrative event that pertains to the use of a *cellphone* while *driving*.



Figure 8: Billboard depicting 'Cellphone use' while driving

The figure above shows the collaborative nature of the visual and graphic modes in communicating road safety messages. In terms of representational meaning, the visual depicts a credible context that appears to be a 'near-collision' of two vehicles at the crossroads. In one of the vehicles, the female driver appears to be distracted by her cellphone. Thus, she is not able to notice that there is another vehicle ahead seemingly crossing the road. The narrative is also transactional in nature owing to the exchange of action involving the represented participants. The driver in the other vehicle crossing the road attempts to stop the other who seems to be absorbed in the cell phone texting. This is evidenced by the gesture of hand which takes the form of a vector directing the action towards the female driver.

The visual has high modality. This is because the foreground and background are credible and elaborate. Although colour saturation is low especially in the background, one is able to interpret the narrative. Besides, the depiction of animate human participants and real objects such as vehicles gives the visual high modality. In a way, the visual appeals to the viewers' social experience which becomes easy for them to interpret the meaning.

In terms of interactive meaning, the visual act depicted is an *offer*. This implies that it was meant to provide information. Additionally, the visual also projects an intimate relationship between the viewers and the represented female participant. This is because of the ‘very close up’ frame size that is less than the head and shoulders of the female subject. There is another distant and impersonal relationship projected between the viewers and the participant in the vehicle crossing the road. Other than that, the visual has a subjective point of view which connects the viewer to the image enhanced by the detailed foreground.

In the case of the graphic mode, it too functions as an *offer* providing information on the *use of a cell phone while driving*. In the graphic information contained in Figure 8, there is cohesion between the two clauses. For example, **It** which is the subject of the second clause, makes an anaphoric reference to ‘*cellphone call or text*’, the subject in the preceding clause. Thus, the statement cohesively makes a clear allusion to the theme of the text just as the visual mode does. In this way, both modes complement each other in meaning-making. However, in terms of organisation, the text shows some inconsistencies in the placement of compositional elements. The visual is rightly ascribed to the top, however at the bottom, the already known information (institutional and campaign theme) is wrongly ascribed to the right margin as ‘New’ information, while that which is coherently packaged in line with the theme and the visual, is presented on the left as ‘Given’ information.

The following text in figure 9 shows great complexity and ambiguity in the graphic mode in addition to the inconsistencies observed regarding the placement of compositional elements.

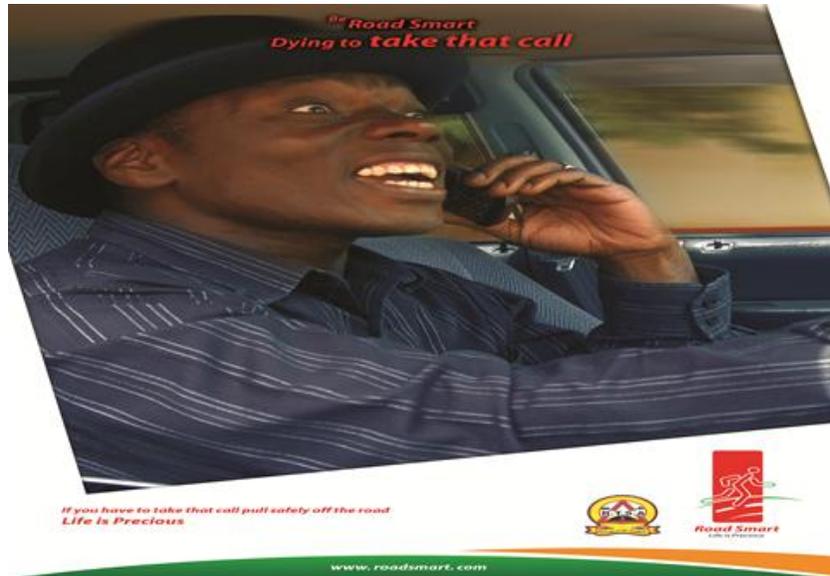


Figure 9: Poster depicting 'Cellphone use' while driving

On one hand, the visual in figure 9 has sufficient representational meaning and modality to enable the viewers recontextualise the narrative. For example, the visual saliently depicts a visibly excited male motorist engaged in conversation using a hand-held cellphone. Apart from that, the depicted narrative is non-transactional because the represented participant does not direct his action towards anyone. Therefore, the image act is an *offer* meant to provide information. As such to interpret this visual, one has to carefully examine the details of the foreground using a subjective perspective imposed by the producer. This is because the background is abstracted due to lack of details. The only exception could be that the car seems to be in motion. In other words, the foreground has more details than the background, thus the viewers have no option but to focus on the details of the image in order to interpret the message.

By focusing on the foreground, the viewer is forced to develop an imaginary relationship with the represented participants. This is also evidenced by the frame size which cuts off the subject at the waist, projecting a 'social' or 'one of us' kind-of-relationship between the viewers and the

represented participants. This kind of social relation has the potential to make the viewers get attached to the visual which is somehow very significant for the campaign.

As already indicated, the visual has high modality not only in terms of contextual details and sufficient illumination, but also in terms of choice of colour. The depiction of the graphic information in the red colour complements the message being conveyed. The colour red is associated with danger, fatality, heat, blood and so on. In this case, 'red' is linked to the dangers associated with the use of a cell phone whilst driving.

The graphic mode in the above text occupies the top and bottom positions while the visual is ascribed to the central position, the most important position in a text. However, the graphic mode is somehow incoherently packaged, on one hand. This is because the 'idealised' (top) information is both complex and ambiguous, while that which is clear and specific, is placed at the bottom in almost invisible font as shown in the following note:

[Note for small font in figure 9]

Be Road Smart

Dying to **take that call**

If you have to make that call pull safely off the road

Life is Precious

In the above note, the construction '*Dying to make that call*' is an incomplete expression. It is a phrase rather than a clause because it does not contain a finite verb. Apart from that, the expression '*that call*' has been used to make a reference to no particular referent in an expression which is complete. Its referent is the visual which means that the graphic information and the

visual have to be read together. However, the use of the word '*dying*' makes the entire construction ambiguous. Other than the literal meaning '*losing life*' it can have metaphorical interpretations, for example, '*declining*', '*diminishing*' or '*experiencing strong desire*'. It is undoubtedly clear that the use of this incomplete expression evokes mixed interpretations. This lapse in communication is obviously against the intention of the producer. From the above observation, it is clear that the top (idealised) information in figure 9 is complex. This is because message is not clearly stated. Under normal circumstances, the 'idealised' information should carry clear and specific messages so that the viewers can easily relate with the image. That way deciphering of the intended meaning is not abstracted.

What is also noticeable in figure 9 is the fact that the most important information that clearly alludes to the *use of a cellphone while driving* is misplaced at the bottom as 'Given' information in almost invisible font, while familiar information is presented as 'New' information on the right. What the producers should realise is that this kind of lay-out impacts negatively on meaning-making.

Overall, it can be said that the graphic mode in figure 9 is incoherently organised especially that the top information carries an element of ambiguity. If read in isolation, it evokes mixed interpretations. However, the addition of a coherently packaged visual mode makes it sensible though to a lesser extent. This means that the integrative use of semiotic modes in RTSA texts is crucial to the process of meaning-making.

The following brochure in figure 10 is another example of a text that contains coherently packaged graphic information on one hand, while on the other; its visual mode lacks truthfulness and credibility because of poor illumination and colour variation.



Figure 10: Brochure depicting 'cellphone use' while driving

As a linguistic feature, modality is used by interlocutors or writers to express judgement about the truth of propositions in communication. In visual grammar as well, an image is said to have high modality (that is, truthfulness and credibility) if there is sufficient representational meaning, colour variation, brightness and contextual details in the foreground as well as background (See Kress et al, 2006).

However, in the above image such factors are simply non-existent. For example, the image depicts a shadowy figure of what supposedly appears to be a motorist operating a cellphone while driving. As a result of the poor colour variation and lack of illumination, the supposedly motorist appears to be an animated participant and not a real human being as the case may be. The shadowy depiction also makes the motorist's gender unclear. An image depicted in black and white colours is devoid of truthfulness. That is the case with the visual in figure 9. Besides, one cannot really tell whether the vehicle is in motion or stationary. In addition, the foreground as well as background of the visual lack credible details to give it some form of modality. The visual does not provide a plausible context other than the blue sky; and indeed, a lack of

credibility in the visual disengages the audience. In other words, due to poor visual modality the audience naturally develops a resentful attitude that can potentially disassociate them from the visual in general, and the intended message, in particular. This is largely because the visual is devoid of experiential reality which has the potential to create imaginary social relations with the audience.

As additional information, the visual image in figure 9 is accompanied by signs placed on the right as ‘Given’ information. However, the signs can only add to the collective meaning of the visual mode if the main visual is coherently packaged for meaning-making. The graphic mode on the other hand contains detailed and coherently organised information in form of ‘*directives*’ and ‘*statements*’. This means that the graphic mode has two discourse functions at least at the interpersonal metafunction level. Firstly, the use of ‘*directives*’ serves as an indirect persuasion of the audience to abide by the road safety guidelines thus reflecting the unequal power relations existing between the producers (RTSA) and the audience. Secondly, the use of declarative ‘*statements*’ serves to offer information on the dangers associated with the *use of a cell phone while driving*.

In terms of organisation, the visual is placed at the bottom while the graphic information occupies the ideal (top) position. In quite exceptional circumstances, the text in figure 9 rightly presents the already ‘known’ information such as the RTSA logo and campaign theme, as ‘Given’ information, contrary to the previous texts discussed in this study.

5.1.3 Overspeeding

‘Over speeding’ is another important theme contained in RTSA texts. The Zambian road traffic act encourages all motorists to always abide by speed limits designated on public roads and to be

prepared to adjust their speed as a precautionary measure especially in unexpected or difficult situations. As a follow up measure, RTSA has installed various posters and billboards on public roads to carry out public awareness on the fatalities of over speeding.

The messages in some of these road safety texts are not easily decipherable because of the use of complex language and inaccessible visual narratives as is the case with figure 11.

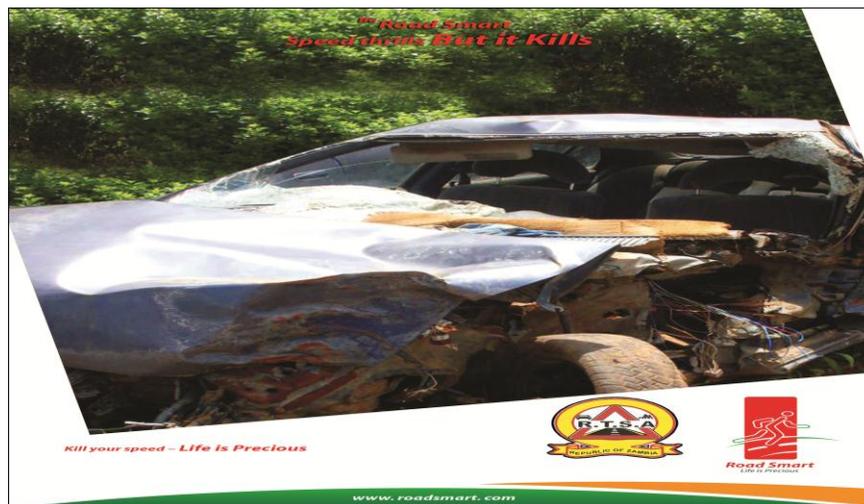


Figure 11: Poster on 'overspeeding'

The text above is meant to convey information on the dangers of 'overspeeding'. However, the individual modes are not coherently packaged to convey the theme of the text. The visual mode is abstract while the graphic information is complex for a motorist with a low proficiency in the English language to quickly understand. Representationally, the visual in figure 11 depicts a narrative process that is non-transactional in nature. The visual depicts an inanimate participant, a mangled vehicle, which presumably was involved in an accident. The visual is placed against a seemingly tranquil and serene forest. At first glance, one cannot quickly tell the possible cause of the accident. This is because the visual's representational meaning is not sufficient enough to guarantee a clear interpretation of the intended meaning. If read in isolation the narrative evokes

mixed interpretations pertaining to the possible cause of the accident. It is rather difficult to attribute the accident to '*overspeeding*' for various reasons.

Firstly, the visual lacks sufficient details in the foreground as well as background. Apart from the mangled vehicle, there are no other details describing the event. For example, the absence of human participants and a road network does not give a clear indication as to the actual cause of the fatality. In other words, the absence of these important participants makes the image act devoid of representational meaning. Secondly, the background lacks contextual details of a credible accident scene.

Although the image act is an *offer* meant to provide information, one wonders what kind of information the mangled vehicle provides in as far as '*overspeeding*' is concerned. This further makes it difficult for the audience to recontextualise the purported narrative. In terms of interactive meaning, the visual does not project any imaginary social relation between the viewers and visual because no human participants are depicted in the visual. The non-existence of a social relation means that the viewers are emotionally detached from the visual, a phenomenon which ultimately curtails information dissemination.

Apart from the abstract visual mode, the graphic information in figure 11 requires some level of proficiency in the English language in order to comprehend the intended meaning. This is because of the complex clauses as the following note shows:

[Note for small font in figure 11]

Be Road Smart

Speed thrills But it Kills

Kill your speed. Life is Precious

Notably, in most posters the visual occupies the central position while the graphic information occupies the top and bottom positions together with other elements. In figure 11, the ‘idealised’ information ‘*Speed thrills But it Kills*’ somehow makes an allusion to the theme of the text, but not as clearly as one would expect. Much as the statement serves the function of ‘*offering*’ information to the audience, it only resonates a rhyme between the words ‘*thrills*’ and ‘*kills*’. With this rhyme, one may not attach the kind of seriousness required to interpret the message.

Other than that, the subjectless clause ascribed to the bottom margin makes the whole graphic mode even more ambiguous. The clause ‘*Kill your speed*’ is somehow abstract. The use of the word ‘*kill*’ evokes mixed interpretations depending on the context and age group. On one hand, the audience may take the literal meaning which could actually reflect the producers’ intentionality, that is ‘*to cut off overspeeding*’. On the other hand, the word ‘*kill*’ is sometimes loosely used, thus, it can have a metaphorical interpretation to mean ‘*enjoy*’ or ‘*maximise*’. This kind of register is quite common among the younger generation. As the case may be, the latter interpretation can be detrimental to the objectives of the campaign. Furthermore, as noticed in the previous discussions, the text in figure 11 also displays some inconsistencies regarding the positioning of compositional elements at the bottom margin. The information which is ‘yet to be known’ is ascribed to the left margin as ‘Given’ information, while that which is ‘already known’ is placed on the right as ‘New’ information.

Overall, the graphic and visual modes in figure 11 are incoherently arranged but the consolation is yielded by their co –occurrence; that is to say, the two modes complement each other in meaning-making. The other complement comes in the choice of the red colour for the graphic information. The red colour re-affirms the dangers associated with ‘*overspeeding*’.

The inconsistency surrounding the lay –out of compositional elements in most texts discussed so far, is also noticeable in the following brochure in figure 12 where the institutional logos and campaign theme are presented as ‘New’ information on the right.

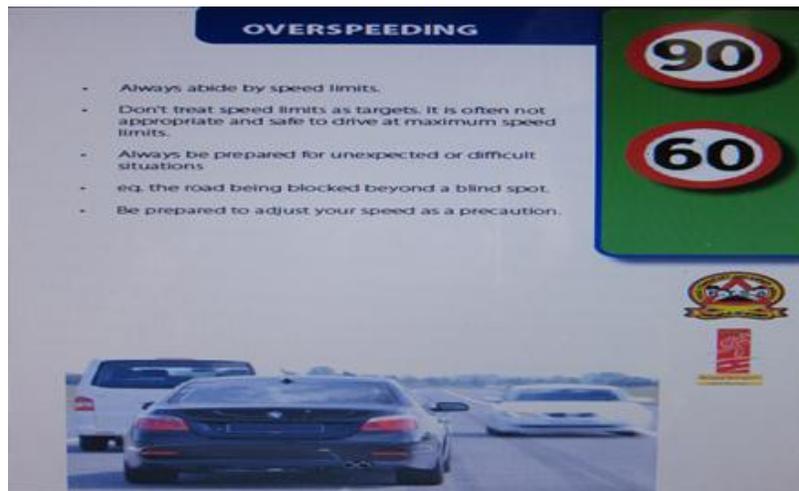


Figure 12: Brochure on ‘overspeeding’

Like in most other brochures, the visual in the above text occupies the bottom position while linguistic information is placed at the top. Worth noting also, is the fact that the graphic information in figure 12 is coherently packaged to reflect the theme of the text. This information takes the form of ‘statements’ and ‘directives’ explain the narrative depicted in the visual mode. Apart from that, the information provided is meant to persuade the audience. The use of persuasive language (directives) fosters a distant impersonal relationship that reflects the unequal power relations existing between the producers and the audience.

Away from the detailed linguistic information, representational meaning in the visual is sufficiently offered by the visual narrative. The image act depicts a high way where an imaginary driver in one motor vehicle attempts to overtake the other by switching to the next lane where another motor vehicle is approaching in the opposite direction. Besides that, the background of

the image depicts a typical highway. Given this elaborate foreground as well background, the visual can easily be recontextualised.

In terms of social distance, the frame size depicts the inanimate participants (the vehicles) at full range. The fact that human participants are not depicted in the visual, there is no social relation projected. Arguably, by depicting imaginary drivers as human participants, a ‘public’ or ‘largely impersonal’ relationship is created with the viewers. However, in reality, there is absolutely no viewer –involvement. Besides, the speed limit signs are placed as “New’ information so that they could easily be noticed. These signs are also explained in the graphic message. This means the visual and linguistic messages together make a unified text. Thus, the complementary occurrence of the visual and the graphic modes should be seen as an important factor in meaning-making.

5.1.4 Seat belt safety

‘Seatbelt safety’ is another theme transmitted in RTSA texts. According to the *Zambian road traffic regulations*, motorists and passengers are obliged to fasten their ‘seat belts’ as a precautionary measure. The billboard in figure 13 is an example of a text on *seat belt safety*.



Figure 13: Billboard on ‘seat belt safety’

Information in the above text is ascribed to two positions. The visual takes the 'ideal' position at the top, while the graphic information is placed at the bottom as 'real' information. However, the visual mode shows some abstraction which, if read without graphic information does not make any sense at all regarding the theme of the text. In terms of representational meaning, the image act is both narrative and actional. The visual saliently depicts an emotionally sensitive image of a man with terrible wounds in his head, right arm as well as his right eye. By staring at the audience, though with one eye, the man is somehow involved in some form of communication with the audience. The image is further placed against an empty white background.

At first glance, the visual evokes mixed interpretations of the possible cause of the man's injury. One possible interpretation puts the man in the position of a victim of some violent behaviour. Many other interpretations may arise depending on the viewer's experiential reality. This is because the image is placed in a void where the background lacks details. Without credible details of the background, it is not an easy task to contextualise the visual. The viewer's only option is to critically analyse the provided details of the foreground using a subjective perspective imposed by the producers. In support of this assertion, Kress and van Leeuwen (1996) write that an image placed in a void tends to have subjective features, thus, the viewer's point of view is the same as producers'. Besides, two choices are realised from a visual as indicated below:

subjective features of visuals are divided into two possible simultaneous choices namely: *involvement* and *power*. In the former there can be either involvement or detachment, and in the latter there can be viewer superiority, inferiority or equality. Both the categories of involvement and power are realised through various choices of visual horizontal and vertical angle respectively (Kress et al, 1996:173-177)

In terms of social distance, the image projects an intimate relationship between the viewers and the represented human participant. This is because the frame size captures a ‘very close up’ figure of the subject; that is, the subject is ‘cut off’ at the shoulders to show intimacy between the injured man in the visual and the viewers. This kind of relationship is meant to get the audience emotionally involved.

Other than having a subjective perspective because of the foregrounded details, the image act is a ‘demand’. A visual demand is realised by a gaze (eye contact) which always takes the form of a vector formed by the glance of one or more of the animate represented participants outwards to the viewer of the visual. In this visual, the injured man *demands* a response from the viewers by staring at them. However, the fact that details of the background which could help in meaning-making are absent, the audience have no option but to incorporate the graphic mode placed. This is because the visual makes no clear allusion to the theme of the text ‘*seat belt safety*’. The graphic information on the other hand, is coherently constructed to reflect the theme of the text. The addition of the clause ‘*Without a seat belt, things can go ugly*’ gives the visual a context and some truthfulness. The graphic information serves as a caption of the image, thus the two modes have to be read together in order to have an effective interpretation of the intended meaning.

On close observation however, though the graphic information alludes to the ramifications of not wearing a ‘seat belt’, its placement at the bottom as ‘Given’ renders it partially insignificant and less noticeable. This kind of inconsistency in the placement of compositional elements is one of the notable aspects that characterise the design of RTSA texts. Away from that, one point that comes out prominent in the analysis of figure 13 is the correlation between the textual and visual modes in RTSA texts. This correlation re-affirms the significance of the co-occurrence of

semiotic modes in meaning-making (O' Halloran, 2011).

Similarly, figure 14 carries the same abstract visual image as the one in figure 13, but with more detailed graphic information on the importance of the *seat belt*.



Figure 14: Brochure on 'seat belt safety'

Typical of most brochures discussed so far, the text in figure 14 is loaded with more detailed information which makes the deciphering of meaning easy. Notably, the above text contains a table which summarises the legal requirements and modalities for wearing the '*seat belt*'. The contact address, along with a toll-free line, is also provided on the brochure so that the audience can freely consult the producers (RTSA) on various road safety matters. This kind of information packaging creates a close social relation between the producers and the viewers not only through the intimate visual, but through the contact number, which grants the viewers an opportunity to inquire more about the '*seat belt*'

At first glance sometimes, both the visual and graphic information do not convey a clear message regarding the theme of the text because the modes are either complex or presented in abstraction.

Figure 15 is an example of a text with a relatively abstract visual image and somehow complex graphic information, especially to members of the audience with little or no knowledge at all about the use of the seat belt.

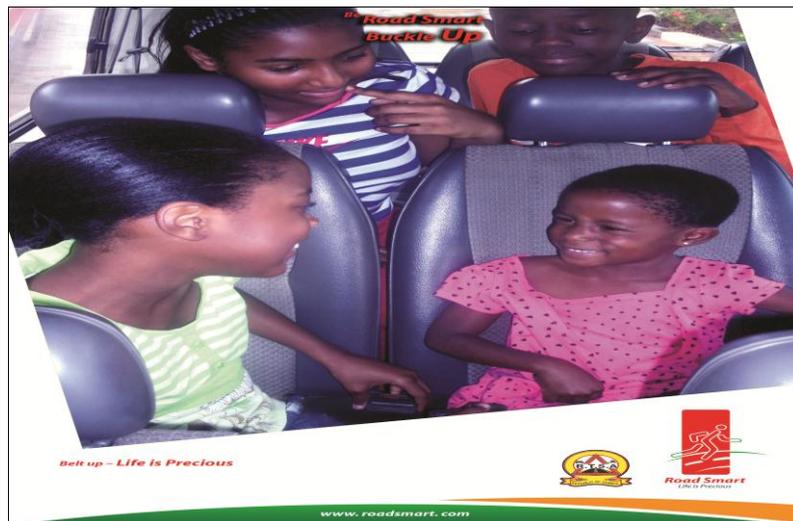


Figure 15: Poster on 'seat belt safety'

Both the visual and graphic modes in figure 15 are presented in abstraction. Although the image act is both narrative and actional in nature, it does not clearly allude to theme of the text. In terms of representational meaning, the visual saliently depicts instead, children who appear to be engaged in a joyous conversation while inside the motor vehicle and none of them is strapped in a seat belt. The main focus of the text is to show the importance of the 'seat belt'. However, the visual does not saliently depict it. Instead, what is noticeable to those with prior knowledge is the socket of a seat belt held by one of the represented participants.

Apart from that, the represented participants do not gaze at the viewers. This is a clear indication that the image act is a *visual offer* meant to provide information. Nonetheless, since the visual does not convey straight forward information that discourse function is far-fetched. It is also unclear whether the vehicle is stationary or in motion because apparently the driver is not

depicted in the visual just as the background is absent. The details of the visual image are foregrounded. From the producers' point of view, the absence of the background may be a deliberate move to draw the attention of the viewer towards the image act. In other words, there is a producer-to-viewer relationship whereby the point of view of the producer is imposed on the viewer. One would view this as an intention to involve the viewer or convey the kinds of relation existing between them.

The visual is also transactional as evidenced by the exchange of action amongst the represented participants. On close observation, there is an attempt to draw the viewer's attention towards what appears to be the socket of a seat belt to those with prior knowledge. However, that does not come out clearly because the actual seat belt is not visible and none of the represented participants is strapped. Overall, the visual does not allude to theme of the text. What is perceptible is that the children are engaged in a cheerful conversation, although one appears to hold the socket, presumably, of the seatbelt.

On the other hand, the graphic mode in figure 15 is relatively complex for the average Zambian audience to understand especially if read in isolation as shown in the following note:

[Note: small font in figure 16]

Be Road Smart

Buckle UP

Belt up. Life is Precious

This is because of the use of the uncommon phrasal verb '*Buckle up*' to mean '*fasten your seat belt*'. The phrasal verb is not a common expression amongst many Zambians. Therefore in order

to make sense out of this construction, some level of proficiency in the English language is needed. Undoubtedly, the use of sophisticated linguistic constructions has implications on the dissemination of road safety information. It can act as a barrier to the effective interpretation of meaning which is obviously against the objectives of the safety campaign. The producers ought to bear in mind that these texts cut across age, educational levels and social class, hence the need to use familiar non- complex language. As observed in the previous texts, there is an element of inconsistency in the placement of elements. The construction ‘*Belt up –Life is precious*’ which is not as complicated to interpret as the ‘*idealised*’ information ‘*Buckle up*’, is placed at the bottom margin as “Given’ information, while the familiar information is presented as ‘New’.

The following text in figure 16 contains the same complex graphic information as the one in figure 15; however, its visual mode is coherently packaged to reflect the theme of the text ‘*seat belt safety*’.

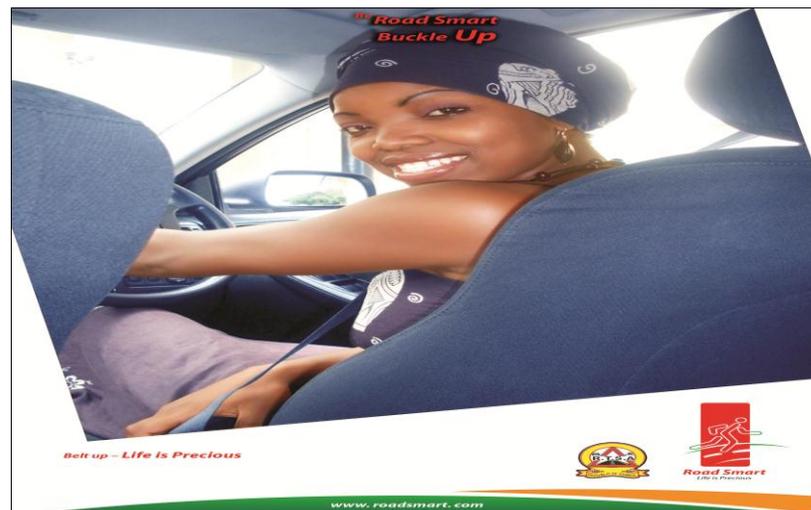


Figure 16: Poster on ‘seat belt safety’

In figure 16, although the graphic information is somehow complex, the presence of a coherently organised visual mode lightens up the process of meaning-making. The visual has sufficient

representational meaning and credibility. It clearly makes an allusion to the theme of the text. The visual saliently depicts a female motorist cheerfully fastening her seat belt while staring at the viewers. While holding the steering wheel with her left hand, she fastens her seat belt with her right hand. This implies that she is yet to set off on her journey. In terms of modality, the visual reflects high credibility and truthfulness. There is sufficient illumination, colour variation and brightness making the details in the foreground easily visible.

Apart from that, the image act is a *visual demand* that evokes a response in the viewer. This is evidenced by the presence of a gaze that is directed at the viewers. The driver makes eye contact with the viewers to draw their attention towards her action. In other words the represented participant wants to involve the viewers in her action which is very significant in as far as the publicity campaign is concerned. This further suggests that the depicted narrative is transactional in nature. The eye contact made between the represented participant and the viewers potentially creates an imaginary relationship between them. On one hand, the connection can result in viewer involvement or detachment, and on the other, it can create viewer equality, viewer superiority or viewer inferiority.

In terms of social distance, the frame size projects a 'social' or 'one of us' kind-of-relationship between the viewers and the represented participant. Notably, the image is placed against a background that is devoid of the necessary details that can increase its modality. However, the viewer's attention is drawn to the detailed foreground because the visual has a subjective point of view. This implies that the producers have imposed their own perspective on the viewers. By imposing a subjective point of view on the viewer, the producer's intention is achieved that of having a shared view of the theme. The viewer is, therefore, forced to pay attention to the action

being performed by the represented participant. Overall, the visual mode sends a clear message about the importance of the ‘*seat belt*’ and in a way compensates for the complex linguistic information contained in figure 16.

In some texts, the visual mode is represented by animations. Arguably, the use of animations instead of real human participants affects the modality of the visual as shown Figure 17.



Figure17: Brochure on ‘seat belt safety’

On one hand, the visual mode lacks credibility and truthfulness, but on the other, the graphic information provided is detailed and coherently packaged to offer information and also explain what is depicted in the visual. The information is in form of ‘commands’ which are meant to persuade the audience to follow the guidelines. The use of persuasive language, common in brochures, is meant to foster the unequal power relations existing between the producers (RTSA) and the road users. This means that the graphic mode should be read along with the visual mode in order to get a unified message. However, for the sake of analysis, the two modes should separately be examined in order to establish how they are packaged for meaning-making.

Although the image in figure 17 depicts a transactional narrative process, its representational

meaning is not sufficient enough to guarantee an effective interpretation of the intended message. This is because the represented participant is depicted out of context. What is saliently depicted is rather an animated pregnant woman strapped on an isolated seat. What is odd about the visual is that the seat is not even inside a vehicle as one would expect. From the producer's point of view, it can be argued that the text was meant for a specific audience, supposedly the pregnant women. However, the fact that the visual lacks contextual details coupled with the use of an animated participant deprives the visual of logic and experiential reality. For example, the placement of the visual in a void with less detailed foreground gives the visual poor modality.

Even though the image act is a *visual demand* in which the animated participant glances at the viewers, it does not force a response from them because it lacks credibility. This is further justified by impersonal relationship projected by the frame size. The frame shows a full -figure subject thereby projecting a 'general social' relationship. Given this situation, it is difficult to recontextualise the image and effectively interpret the intended message.

However, the co-occurrence of the textual mode along with the visual re-aligns the meaning of the text. The linguistic information provided renders some meaning to the visual. This information is represented in form of general advice (statements) and legal requirements (commands) for the driver and passengers. The text is further loaded with signs to provide additional information. However, some intertextual knowledge is needed in order to interpret the signs.

5.1.5 Child safety

It is the responsibility of adults to ensure the safety of children in their custody either as pedestrians or passengers. According to the Zambian road traffic regulations, a driver must

ensure that: young children are in their seats which should be properly fitted; the child lock for the door is activated; all children enter and exit a car from the pavement side; children above the age of 12 use an adult seat belt; children do not stand in-between the front seats.

The text in figure 18 is an example of a text meant to promote the *safety of children*.

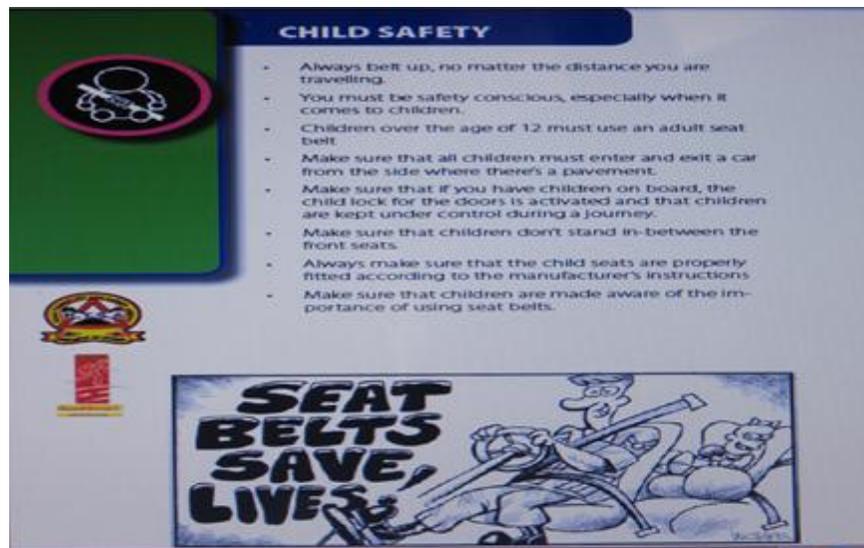


Figure 18: Brochure on 'child safety'

To begin with, the graphic information in figure 18, like other brochures is detailed and coherently organised to offer information on child safety and also to provide a complementary explanation of what is depicted in the visual. On the other hand, the visual mode in figure 18 is incoherently packaged because it lacks truthfulness and credibility just as the one in figure 17. In terms of representational meaning, the visual depicts a narrative process involving animated participants. Representationally, the visual lacks contextual details and genuineness to guarantee an effective interpretation of the intended meaning. Undoubtedly, the use of animated participants to reflect real human situations affects experiential reality. In other words, the depiction of unreal participants (the people and a vehicle) creates a distant impersonal

relationship between the viewers and the represented participants which consequently disconnects viewer involvement.

The use of animated participants to convey publicity information is not the only factor that makes the visual untruthful. Other factors include lack of contextual details in the background as well as foreground, poor colour saturation, brightness and illumination where the image is depicted in black and white. The resultant effect is that the image lacks modality and credibility. That being the case, the visual evokes no imaginary relationship with the viewers because they feel detached. Ultimately, it becomes very difficult for the audience to accord the visual the serious attention it deserves.

Nonetheless, the visual is somewhat complemented by the caption '*SEAT BELTS SAVE LIVES*' boldly depicted in black and the detailed information provided in form of '*commands*', '*directives*' and a '*sign*' about child safety. This shows how textual and visual modes are interdependent in the meaning-making process. In terms of organisation, compositional elements are rightly placed. The institutional logo and campaign theme are presented as 'Given' information, while the graphic information and the visual are placed as 'New' on the right. This allows the audience to pay attention to the unknown information. One thing the producers should realise is that the main aim of producing a brochure is to attain maximum publicity. Therefore, significant attention should be paid towards the choice, design and organisation of both the graphic and visual modes.

5.1.6 Road signals

'Road signals' is another important theme contained in RTSA road safety texts. It is an obligation for all motorists, pedestrians, and cyclists to adhere to road signs and signals all the

time. To effectively interpret the intended meaning, the various road users are expected to apply their knowledge about traffic lights and road signals. The question however is: How much knowledge do ordinary road users have on road signals?

The following is an example of a text meant to educate motorists on the importance of obeying *traffic light signals*.

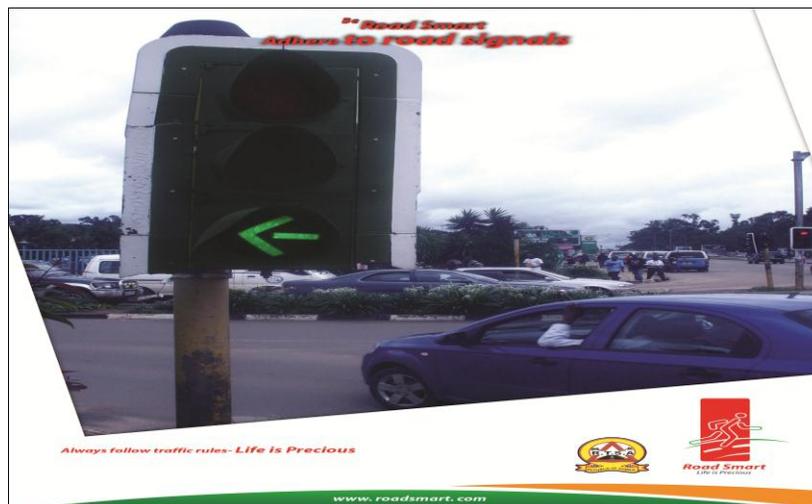


Figure 19: Poster on 'road signals'

Traffic lights are normally controlled by power-automated machines which dispense a particular colour to indicate which particular road user has right of way on the road at a particular time. The visual depicts a green arrow and a motor vehicle turning appropriately in the direction of the arrow. According to road traffic regulations, 'green' means 'go'.

In the above text, the visual depicts a *green arrow* and a vehicle turning in the direction of the arrow but the information provided does not mention anything about the *turning vehicle* or the '*green arrow*'. From the producer's point of view, the audience should apply their acquired knowledge in order to interpret the message. In other words the text is audience –specific. This means that only those with prior knowledge would be able to effectively interpret the road sign

since the graphic information does not specifically allude to what is depicted in the visual. To the audience without prior knowledge, the graphic information becomes abstract as shown in the following note:

[Note for small font in figure 19]

Be Road Smart

Adhere to road signals

Always follow traffic rules. Life is Precious

Notably, instead of providing an explanation on the visual, the ‘idealised’ (top) information gives a general statement: ‘*Adhere to road signals*’. On the other hand, the information at the bottom only gives general advice: ‘*Always follow traffic rules*’. It should be mentioned here that road safety texts that convey messages on road signs should also provide graphic information to complement such road signs. This is because not all road users, particularly pedestrians and children, are abreast of the meanings of road signals. This therefore poses a great challenge on the producers to ensure that campaign materials such as, brochures and posters, coherently packaged.

In terms of modality, the visual has a credible foreground and background. Apart from the road sign, the represented participants are real. The turning vehicle is placed against a detailed background that depicts other vehicles and pedestrians going about their normal businesses. The visible details of the background, coupled with sufficient colour variation, show that it is day time. However, in terms of lay out, elements of a composition are misplaced at the bottom margin.

Unlike the poster in figure 19 which depicts a visual signal accompanied by abstract graphic information, the brochure in figure 20 provides coherently organised visual and graphic information which convey clear and specific information on traffic signals.



Figure 20: Brochure on 'traffic lights'

Besides offering information on the different lights depicted in the image, the graphic information further provides guidelines on the meanings accorded to individual colours. According to the graphic information, the red light means 'stop'. When this light appears all motorists and cyclists heading in that direction are ordered to stop; the green light means 'go'. In this case, motorists and cyclists have right of way; the amber light means 'get ready to stop'. The brochure provides further details for pedestrians. The red light depicting a human being orders them not to cross the road, while the green light gives them right of way.

However, the visual lacks a credible background. All the details are foregrounded. In terms of modality, the visual does not reflect a credible context because it lacks a truthful background and only inanimate participants are depicted. One may be of the view that it was the producer's deliberate move to direct the viewer's attention towards the traffic lights, by imposing a subjective point of view. This can be seen as a strategy by the producer to make the viewer get

involved which somehow proved effective. Overall, the text shows the correlation between the graphic and visual modes in transmitting meaning.

Unlike the text in figure 20 where the graphic mode complements the visual by providing sufficient explanatory details, the text in figure 21 is on one hand overloaded with visuals, and on the other hand, underloaded with graphic information.

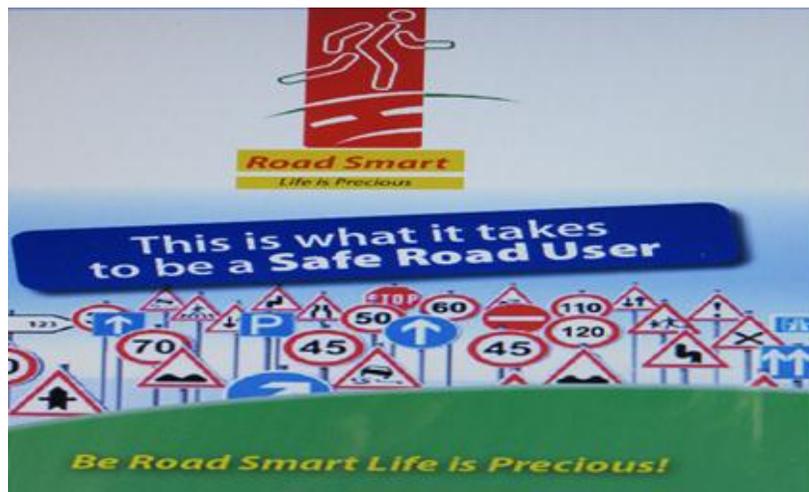


Figure 21: Brochure on 'road signs'

The graphic information '*This is what it takes to be a safe road user*' does not sufficiently allude to the theme of the text and neither does it contribute to the process of meaning-making. This makes the text incoherent because it contravenes the regulative principles of textual communication which requires that a text should be used with minimum effort.

On the contrary, the visual in figure 20 has too many road signs which are not explained. Decoding the meanings of some of the road signs depicted can be very difficult especially for those that are not familiar with them. In other words, the text is too incoherent for anyone seeking knowledge to decode anything. It appears that the prior knowledge is cardinal in the interpretation of such visuals. This means that the producers of the text in figure 20 had a

specific audience they wished to remind about the importance of adhering to road signs not just ordinary audiences. This observation is also justified by the fact that visual lacks a context and background. Notably, the signs are placed in a void where no one can approximate their meanings.

Somehow, it was an oversight on the part of the producers to expect that such texts would have an impact on behaviour change and ultimately promote road safety. This is because not all road users have undergone some form of orientation to be able to decode the meanings attached to these signs. Most pedestrians and children do not have that kind of information. If messages in road safety awareness texts are not regulated and coherently packaged, the producers risk not fulfilling their objects.

The text in figure 22 has low modality because of lack of context and mixed colour presentation. The colours yield different interpretations contrary to the intended meaning. For example, the visual is placed against a green empty background. The colour green symbolises restoration of depleted energy or rebirth. On the other hand, the graphic information is depicted in the white colour which is associated with purity and chastity. The graphic information is further embraced by the blue colour representing *trust* and *honest*. Undoubtedly, the colour scheme contradicts the serious nature of the message contained in the text.

5.1.7 Overloading

The other theme communicated in RTSA texts pertains to '*overloading*'. Under the road traffic and safety regulations act it is illegal to overload a motor vehicle. This is because overloading affects the vehicle's stability among other things, and most often overloaded vehicles are prone to road traffic fatalities. Every motor vehicle has a specific gross capacity of the load it can take

including passengers.

The following is an example of a text intended to address the dangers of *overloading*.

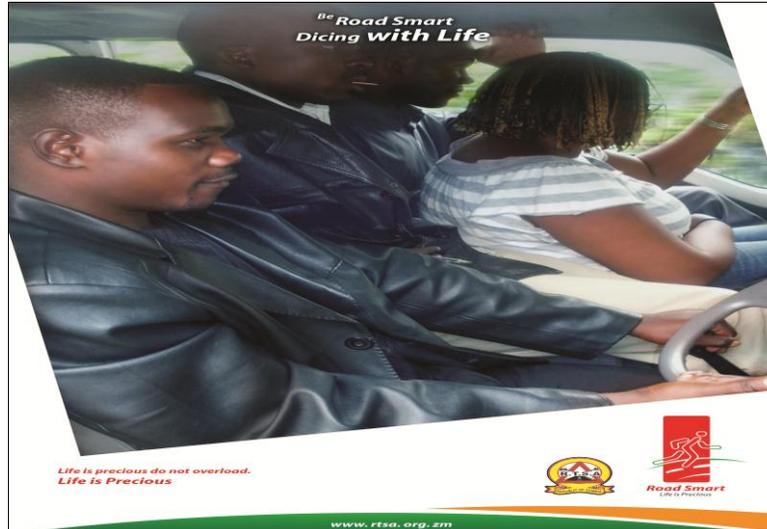


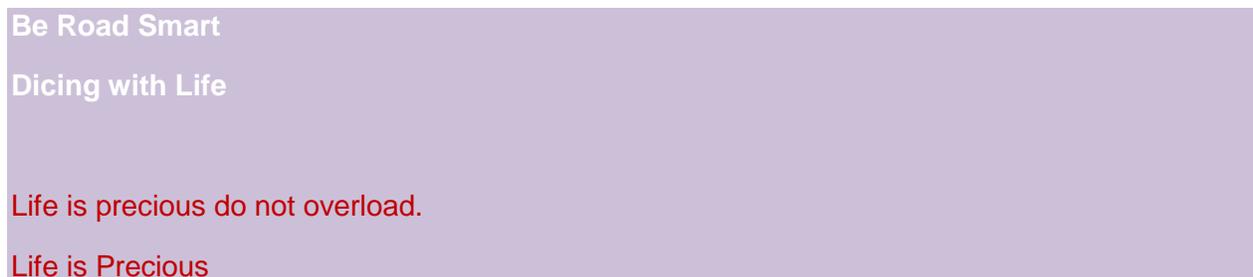
Figure 22: Poster depicting a vehicle overloaded with passengers

In the above poster, the visual mode is coherently packaged with sufficient representational meaning and modality, while on the other hand, the graphic information is does not convey a clear message. In terms of representational meaning, the visual saliently depicts four human participants, a driver with three passengers in the front seat of the vehicle supposedly on a journey. Based on experiential reality, one can clearly see that the vehicle is overloaded with passengers. The front seat in most small vehicles can only take one passenger, but in this visual, there are two more passengers. The image act is narrative but non-transactional in nature. This is because the represented participants do not exchange anything. In addition, the image act possesses interactive features of a visual offer. This is evidenced by the represented participants' look away from the viewers. Thus, in terms of function, the visual is intended to offer information on *overloading*. However, the visual does not depict any effects of 'overloading' passengers on a vehicle.

The visual has high modality reflected in many aspects. One of which is a credible background that shows that the vehicle is indeed in motion. Apart from that, the foreground contains details that create a truthful context. The event depicted is clearly visible because of the well-saturated colour, and sufficient brightness and illumination. These factors give the visual its truthfulness. Additionally, the fact that the foreground is more detailed than the background entails that the visual has a subjective point of view. This can be seen as an attempt by the producers to get the viewers involved. This is further justified by the social distance created by the frame size. The subjects are ‘cut off’ at the waist to project a ‘social’ or ‘one of us’ kind-of-relationship between the viewers and the represented participants. This relationship makes the viewers feel attached to the narrative more so because they are able to relate with human participants depicted.

On the other hand, the graphic information is not coherently packaged because of the complex linguistic construction involving the information placed at the top as shown in the following note:

[Note for small font in figure 22]



In figure 22, the ‘idealised’ information ‘*Dicing with Life*’ is rather ambiguous. It does not give a specific message regarding the theme of the text. Undoubtedly, the complexity of the linguistic construction has the potential to abstract any meaningful interpretation of the text. To many people, the lexicon ‘*dice*’ literally refers to a game of gambling played using small cubes. Like in

any other game, there is a ‘winner’ and a ‘loser’. However, in some social settings, the term ‘dice’ is loosely used and in such circumstances it attains a metaphorical interpretation to mean that every undertaking has both the ‘positive’ and ‘negative’ ending.

Given this context, it is not clear what message the caption intends to convey; that is, whether ‘overloading’ is risky to the passengers only or to both the driver and the passengers. Furthermore, the expression evokes speculation as to who the ‘overloading’ is beneficial as the case may be. Overall, this situation leaves one to speculate rather than effectively interpret the intended meaning. On the contrary, the information which clearly alludes to the theme of the text is placed at the bottom as ‘Given’ information in almost invisible font, while that which is ambiguous is placed at the top (idealised). This inconsistency renders the text incoherent. The complex linguistic information and inconsistent placement of compositional elements is also noticeable in the following text in figure 23.

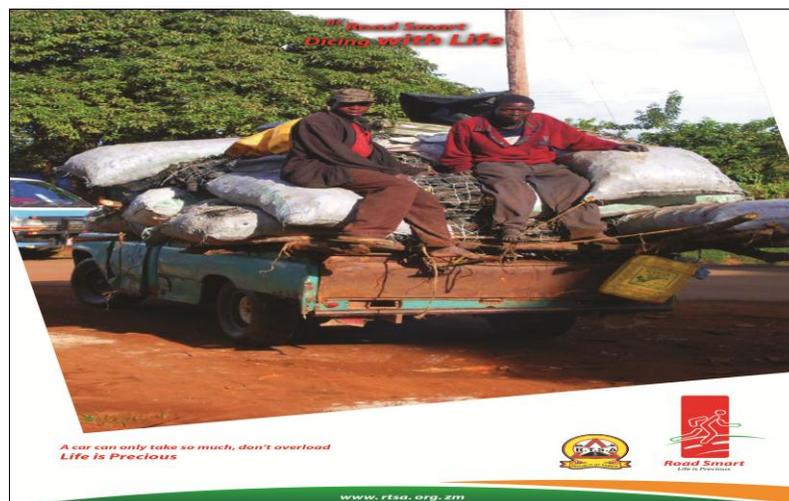


Figure 23: Poster depicting a vehicle overloaded with cargo

Just as in figure 22, the graphic information in figure 23 is incoherently organised. The information which conveys a clear and specific message on the theme of the text is ascribed to

the bottom margin in very small font as ‘Given’ information. On the other hand, the ambiguous information is the one placed at the top of the text. It should be mentioned here that misplacement of vital information is more like hiding information from the people who dearly need it. This tendency actually disadvantages the audience in terms of meaning-making. In essence, the top information should offer the passing audience a clear direction at first glance. That way they will have the motivation to read further and get the intended meaning. In figure 23, the message ‘*A car can only take so much, don’t overload*’ which complements the visual is placed at the bottom as “Given”, while that which is ambiguous is ‘idealised’ as shown in the following note:

[Note for small font in figure 23]

Be Road Smart

Dicing with Life

A car can only take so much, don’t overload. Life is Precious

The incoherence in linguistic choices implies that in the above text, graphic information cannot be used alone. It has to be read along with a visual mode. In terms of representation, like figure 22, the visual in figure 23 saliently depicts an overloaded vehicle. In this particular case, the vanette is overloaded with bags of charcoal and people. However, the fitness of the vehicle is questionable owing to its dilapidated condition. The image act is a *demand* meant to force a response from the viewers. This is evidenced by the presence of a gaze. The two represented human participants make a direct glance at the viewers. It is not clear though what the demand is about.

The image is placed against an elaborate background that contains credible details such as

vehicles, a road and trees. Considering the brightness and colour variations in the visual, one can tell that it is day time. The visual's high modality makes it easy for the viewers to recontextualise the narrative. However, the visual message is still not clear because it does not specify which aspects of 'overloading' are of concern. It is not clear whether the focus is on the two men sitting behind the vanette on the bags of charcoal or the poor condition of the vehicle. The producers ought to provide graphic information that would complement the visual in conveying a clear and meaningful message. It is obvious that the two modes need to be read together in order to have a unified message.

5.1.8 Vehicle fitness

One of the functions of RTSA is to conduct physical and technical examination on motor vehicles to ascertain their road worthiness. Vehicles which do not meet certain standards are declared 'unfit' to move on public roads because they endanger the lives of many road users. Motorists who disregard such road traffic regulations risk their vehicles impounded by the agency and Zambia police. Figure 24 is an example of a text meant to disseminate information on *vehicle fitness*, particularly 'tyre service'.



Figure 24: Poster on 'vehicle fitness'

The text above shows incoherently packaged modes of communication. The representational meaning is not clearly decipherable. The narrative in the above visual is inaccessible because of the use of abstract visual and complex graphic modes. In the visual, the car is partially depicted. What is shown is part of the tyre with some protruding elements circled in red. This image is definitely meant for a particular audience because it requires technical interpretation. The image act is an *offer* that is meant to provide information to the motorists. In other words, the visual is devoid of a gaze because the represented participant is inanimate. However, the information being offered is not clear. Only viewers with technical knowledge can attempt to interpret the visual. This is because the image has no background, and its foreground is not elaborate – it lacks salience.

Of course, the producer's intention was to draw the viewer's attention to the image rather than its background. However, this does not erase the abstraction the visual offers to meaning –making.

The incoherence of the text is further rendered by the complex linguistic construction as shown in the following note:

[Note for small font in figure 24]

Be Road Smart

Braking News

Always check your tyres before travelling

It could save a life.

Life is Precious

In figure 24, the 'idealised' information has an element of ambiguity: '*Braking News*'. It is not clear whether the producers intentionally chose the lexicon '*Braking*' or mistakenly used it in the

place of *'Breaking'*. The audience is only left to speculate on the potential meaning of the construction. Arguably, the poster was meant for a specific audience, presumably motorists, with prior knowledge about motor vehicle service. However, not every motorist possesses that kind of knowledge or would easily find a connection between what is depicted in the visual and the graphic information provided at the top. The information which makes a clear allusion to the theme of the text is wrongly ascribed to the bottom position as *'Given'* information while the logo and campaign theme take the position for *'New'* information. This inconsistency affects the compositional meaning considering the fact that the target audiences, the motorists, usually have limited time to read what is in the poster.

In contrast to the text in figure 24, the brochure in figure 25 contains coherently packaged visual and graphic information. Like most brochures, it contains detailed graphic information as well as an elaborate visual image as shown below:



Figure 25: Brochure on 'vehicle fitness'

The above text contains detailed information in form of *'statements'* and *'directives'*. The *'statements'* partly give advice and partly explain the visual, while the use of persuasive

language ideologically re-affirms the unequal social relations that exist between the institution, as traffic law enforcers, on one hand, and the road users on the other. In terms of representation, the visual is narrative in nature and functions as a *visual offer* that is meant to provide information on *tyre service*. The main visual shows details of the image and its background: a tyre fixed to a car and equipment used in the process of fixing. However, the visual alone is not coherent enough to convey the intended message. At first glance, it appears to depict a broken down vehicle, but the addition of detailed graphic information makes the visual meaningful. This brings to light the fact that brochures are more coherent than posters.

5.1.9 Pedestrian safety

Pedestrians are expected to obey all traffic rules, signs and traffic light signals for their own safety and that of other road users. The image in figure 26 is an example of a text on ‘pedestrian safety’.

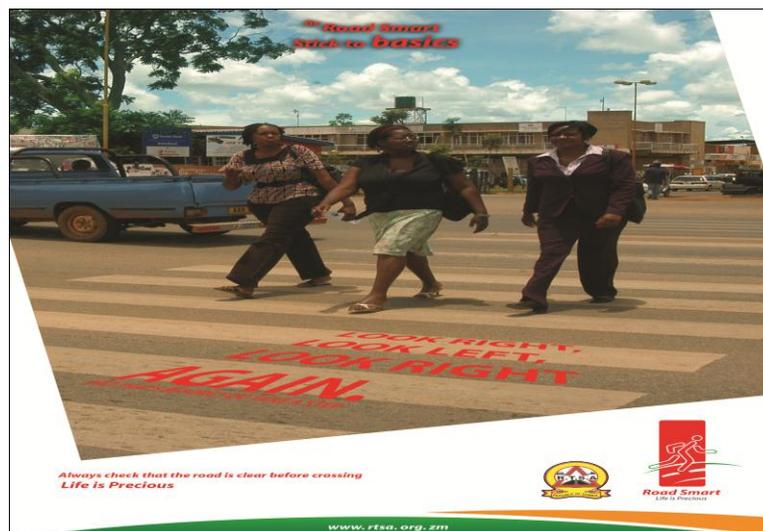


Figure 26: Poster depicting pedestrians crossing the road

Representationally, the visual is an example of a reactional narrative. According to Kress and van Leeuwen (1996: 64-67), ‘the direction or focus of this reaction (a look or gaze) follows a

vector to the receiving participant or whole place termed, phenomenon”. Similarly, two of the three represented human participants cautiously stare in the direction of potential traffic as they cross the road at a zebra crossing while the third focuses on where they are going.

Other than that, the visual has high modality because of the detailed back- and foregrounds as well as sufficient illumination and brightness. The background depicts a modern day city characterised with vehicles and tall buildings. In addition, the represented participants are real (human beings and objects). Although the frame size projects an impersonal social relation between the viewers and the represented participants, the visual’s high modality makes it easy for the viewers to recontextualise the narrative in the visual and interpret the message. On the other hand, the text is heavily loaded with graphic information as shown in the note below:

[Note: small font in figure 26]

Be Road Smart

Stick to Basics

Always check that the road is clear before crossing. Life is Precious

On its own, the ‘idealized’ information ‘*Stick to basics*’ is abstract, but when read together with the image, along with the familiar old message on the zebra crossing, ‘*LOOK RIGHT, LOOK LEFT, LOOK RIGHT AGAIN*’, one can make an effective interpretation of the intended message. As already observed in other texts, the most specific information *Always check that the road is clear before crossing* is not only ascribed to the bottom of the text, but is also presented as ‘Given’, while familiar information is presented as ‘New’.

Typical of most brochures, figure 27 is another example of a text that is coherently loaded with detailed graphic information and an elaborate visual image.

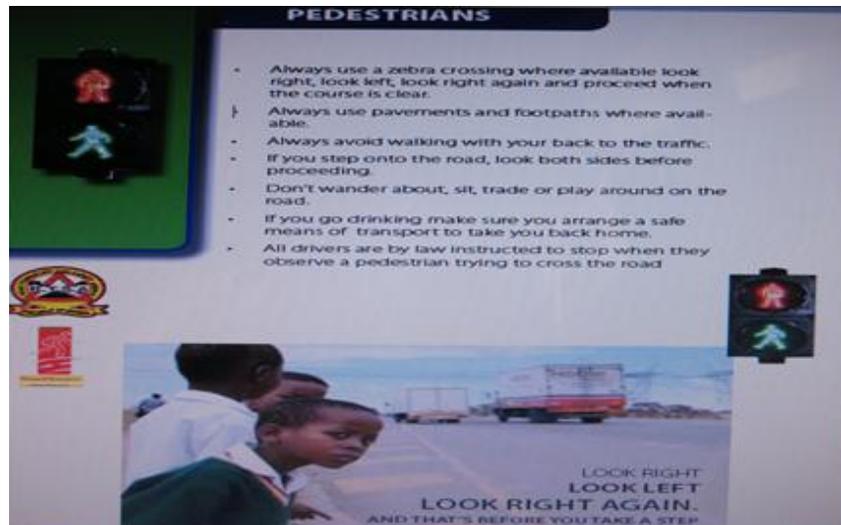


Figure 27: Brochure depicting school children about to cross the road

In figure 27, the graphic mode contains detailed information in form of ‘statements’ and ‘directives’ meant to offer general advice and guidelines on ‘pedestrian safety’. The information also serves as complementary explanation to the events depicted in the visual.

In terms of representation, the visual saliently depicts school-going children about to cross a road. The represented participants stare in the direction of potential traffic before crossing the road, signifying the fact that the visual is a reactionary narrative. The visual has a detailed background which depicts a high way and moving vehicles. This gives the image its truthfulness and credibility. In terms of interactive meaning, the ‘frame size’ cuts the subjects at the waist, thereby projecting a ‘social’ or ‘one of us’ kind-of-relationship between the viewers and the represented participants. This imaginary social relation has the potential to make the viewers feel attached to the depicted narrative, a move which impacts positively on the publicity campaign.

The text has an addition of traffic lights which adds meaning to the decoding process. Furthermore, the signals are clearly explained by the information provided. In this way, the visual and graphic modes complement each other. Apart from that, compositional elements are rightly placed. The already known information (institutional logo and campaign theme) is placed on the left side as ‘Given’ information, while the traffic signs are presented as ‘New’ information.

5.1.10 Lane discipline

‘Lane discipline is another theme contained in RTSA texts. The road traffic and safety regulations demand that all road users exercise ‘Lane discipline’ at all times. Motorists and cyclists are cautioned to signal to the other road users in good time if they are about to change their lanes. This necessitates tolerance, adjustments in speed and accommodation from other road users. Drivers are further advised to ensure that the lanes they are joining are sufficiently clear ahead and behind. Figure 28 is an example of a text meant to promote ‘Lane discipline’ amongst motorists and cyclists.

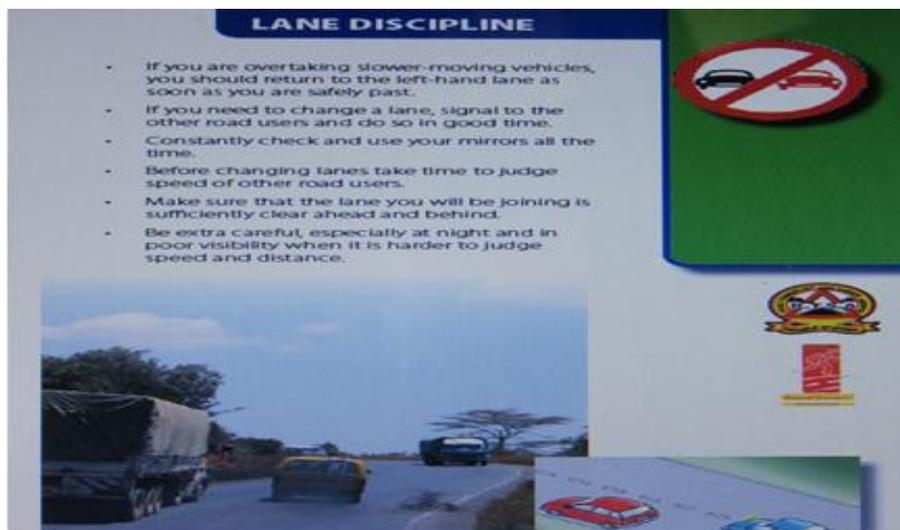


Figure 28: Brochure on ‘Lane discipline’

Like figure 27, the text in figure 28 equally contains detailed graphic information in form of ‘*statements*’ and ‘*directives*’ directed at motorists. The information is coherently packaged. As such, it makes a clear allusion to the theme of the text. Apart from that it complements the visual by explaining the narrative depicted. In terms of representation, the visual saliently depicts a yellow car overtaking a truck at a curve commonly referred to as a ‘*blind spot*’, while two other vehicles approach in the opposite direction. There is sufficient colour saturation, illumination and brightness in the two visual, thus making the contextual details of the foreground as well as background visible. These factors render the visuals truthful and credible.

From their experiential reality and the credible context created in the text, the viewers can easily decode that overtaking another vehicle at a ‘blind spot’ is dangerous. The second visual, though a product of animation, depicts an ideal situation for overtaking another vehicle. It shows a straight road with a sufficiently clear lane that the overtaking vehicle is about to join. A comparison of the two visuals enables the audience to effectively interpret the theme of the text without difficulty. Additional information is provided by the road sign placed on the right side. In terms of social distance, the visual projects a distant or impersonal social relation because human participants are not depicted in the visual; they are only imaginary. In addition, the frame size depicts the inanimate participants at full range. This kind of relation does not attach the viewers to the visual. Overall, it can be said that both the graphic and visual modes complement each other in meaning-making.

5.1.11 Cyclist safety

Like other road user, cyclists are also obliged to obey all traffic rules, road signs and signals. The road traffic and safety regulations act stipulate various safety precautions that cyclists ought to

observe. Figure 29 is an example of a text on ‘cyclist safety’.

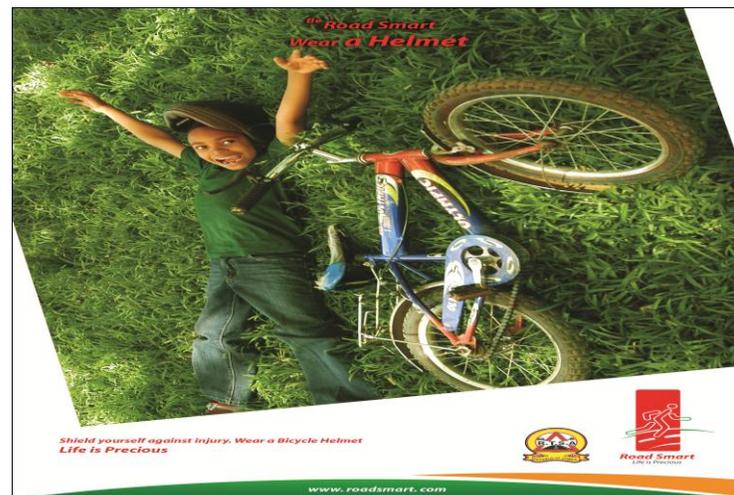


Figure 29: Poster depicting a child who has fallen off his bicycle

In the above text, the visual mode as well as the graphic mode somehow sends a meaningful message pertaining to the theme of the text. In terms of representation, the visual is a narrative. It saliently depicts a young boy lying on the lawn next to his bicycle. The boy, with a helmet on his head, appears to have fallen off his bicycle. The image is also placed against a credible background, that is, a tendered lawn with green grass. The depiction of real participants (the fallen boy and his bicycle) against a truthful background accords the visual high modality and this makes the process of recontextualisation easy for the viewers.

More to that, the image act is a *visual demand* meant to evoke a response in the viewers. This is evidenced by the presence of a gaze which engages the viewers in some kind of imaginary relationship. The represented participant makes eye contact and this takes the form of a vector directing the gaze towards the viewers. Considering the context given, the viewers can either get involved or disconnected. Such a relationship can enable the viewers to develop a feeling of ‘equality’, ‘inferiority’ or ‘superiority’ in relation to the represented participant (See Kress et al,

2006). However, that is not the case because the visual projects mixed interpretations. In addition to staring at the viewers, the represented participant produces a smile which contradicts with the serious nature of the message being projected. In normal circumstances, the boy's facial expression should reflect agonizing pain thereby attracting 'viewer sympathy'. To the contrary, the presence of a smile depicts a happy moment which subsequently draws the viewers into a friendly and pleasurable relationship with the represented participant. Undoubtedly, this kind of relationship affects the serious nature of the mood attached to the reading of the visual. In other words, the presence of a smile flouts the truthfulness and credibility of the projected message.

In terms of social distance, the viewers are engaged in a 'general social' relationship with the represented participant. This is signified by the 'frame size' which depicts the subject at full range. Although the visual is transactional in nature, the action performed by the represented participant is misdirected. The represented participant only signals for help by raising his arms. Thus, the visual does not convey the intended message: '*wearing a bicycle helmet*'. This inadequacy in the visual mode justifies the co-occurrence of the graphic and visual modes in meaning-making. Just as the visual mode sometimes does not coherently convey a clear message, the graphic information may also be abstract if not read together with the image, especially that the vital information is placed at the bottom of the text in very small font as shown in the following note:

[Note for small font in figure 29]

Be Road Smart

Wear a **Helmet**

Shield yourself against injury, Wear a Bicycle Helmet.

Life is Precious

In the above text, the ‘idealised’ information ‘Wear a helmet’ does not specify which kind of ‘helmet’ should be worn and the ‘context’ in which it should be worn. The information which conveys a specific message is placed at the bottom in very small font which is almost invisible. Misplacement of elements has the tendency to abstract the audience from focusing on relevant information.

5.1.12 General road safety

Figure 30 is an example of a text whose theme is unclear. Both the visual and graphic information show abstraction in that they do not refer to a specific aspect of road safety.



Figure 30: Brochure on ‘general road safety’

At first glance, the visual in figure 30 does not provide sufficient representational meaning. Although the visual depicts a narrative process showing the hand of an adult holding the hand of a youngster, typical of a parent holding a child, it does not refer to any particular road safety theme. Ordinarily, the visual appears to be a gesture of friendliness and support offered to the young one.

Other than that, the visual act is transactional in nature. It involves exchange of action between the represented human participants. The two participants hold each other's hand, although the visual is devoid of a gaze. Furthermore, although the visual is an *offer* meant to provide information to the viewers, one wonders what kind of information is available for the audience to learn about road safety. This re-affirms the earlier assertion that the representational meaning in the visual is not enough to guarantee a meaningful interpretation of the intended message. One would be of the view that the hands have a symbolic meaning other than what is depicted. The fact that the visual has mixed interpretations, one of which is symbolic, makes it rather abstract. Symbolically, the visual narrative on one hand depicts a direct friendly relationship between the represented participants, and on the other hand, an indirect close social relationship between the interactive participants (viewers and the producers).

The above assertion is justified by the message transmitted by the graphic mode: '*TOGETHER WE CAN....Help us help you to make our roads safer...Toll free*'. It can be said that the graphic information in figure 30 is not straightforward. This message is a general appeal to the road users to be in touch with RTSA. It does not address a specific audience and neither does it streamline a specific area in which the collaboration should take place.

In terms of modality, the visual lacks details to give the visual its credibility and context. Firstly, the visual is placed against a green empty background which does not present any truthful context. Secondly, the depicted participants are only parts of the actual the human beings. This depiction evokes mixed thoughts and interpretations in the minds of the viewers.

5.2 Summary of Findings

This section presents a summary of the findings of the investigation. It can be said that reading and interpretation of information differs from one person to another, and audience to audience making it extremely difficult for campaigners to get their messages across successfully. The authors of RTSA texts have specific messages they wish to convey to the various target groups. In order for their messages to be clearly understood, the audiences at first glance, have to make sense of the messages. If interpretation of these messages becomes a challenge to the target audience then implementation of campaign objectives is unattainable. From the foregoing analysis, the following findings have been identified as rendering RTSA texts incoherent:

5.2.1 Adoption of Western approaches to information organisation

It has generally been observed that information organisation in RTSA texts follows a ‘left’ – ‘right’ and ‘top’ - ‘bottom’ Western traditional way of reading texts. Information values are realised by the placement of elements of a composition. This means that the role of a particular element will depend on where it is ascribed in the text. In most RTSA posters and billboards, the image is the most important element of a composition because it is often times ascribed to the central position, while the graphic information is ascribed either to the top as ‘Ideal’ or bottom as ‘Real’ or both. In addition, the graphic information is placed either on the left as ‘Given’ or right as ‘New’ information. In the case of brochures, the graphic information takes the ‘ideal’ (top) position while the visual takes the ‘real’ (bottom) position.

According to the Western traditional way of organizing texts, ‘Given’ information is presented as something the viewer or reader already knows and as such they become the agreed point of departure for the message (Jewitt & Oyama, 2001). Elements placed on the right are presented as

‘New’ meaning it is something not yet known, hence the reader or viewer must pay special attention to such elements since they are problematic and contestable though informative. Elements on the horizontal axis are generalised and are usually the ideologically most salient part. Such elements occupy the top or ‘ideal’ position on the page while those elements that are at the bottom carry ‘down-to-earth information’, thus forming the meaning potential of the text.

According to Jewitt and Oyama (2001), the bottom part carries “more specific information (for example, details), more practical oriented information (for example, practical consequences, direction for action), or more real information (for example, photographs as documentary evidence)”. Finally, elements that appear at the centre are seen as holding the ‘marginal’ elements together; in other words, the ‘marginal’ elements are subservient to the central element from where they derive their interpretation depending on the context.

5.2.2 Inconsistencies in the placement of elements of a composition

The objective for using billboards and posters in a campaign is to attract the attention of the audience as they walk or drive past. This means that the message in a billboard or poster should easily and quickly be read. However, the Western approach to the reading of texts puts at a disadvantage, those members of the audience who may not have attained Euro-centric type of education. This is because the reading approach may act as a barrier to the effective interpretation of information, thus, affecting composition meaning.

Other than that, the producers of the campaign material flouted theoretical specifications for the compilation of graphic and visual information which have a specific aim to bring about behaviour change. This largely affected the coherence of the text. In most instances, the wrong

placement of elements of a composition rendered the messages undecipherable even to those who have attained Western education due to the fact that there was little interconnectedness between the verbal message and visuals. Following Halliday and Hassan (1976), the major principle of effective communication is to insist on cohesion and coherence in the dissemination of messages.

However, the producers of RTSA texts overlooked the importance of coherent framing. In most texts, the information which is 'idealized' is too abstract to have any relation with the intended theme of the text. That which is straightforward and directly related to the theme is placed at the bottom. Not only is the relevant information relegated to the bottom part, it is also presented as 'given' information and in relatively small font making it invisible to the passing audience. This view is supported by Kress and van Leeuwen (1996:202) who observe that 'viewers of spatial compositions are intuitively able to judge the 'weight' of the various elements of a composition and the greater the weight of an element, the greater its salience'. Salience or prominence is the result of a complex interaction of such elements as size, sharpness of focus, colour contrast, placement in the foreground or background.

The 'known' information, which included the institutional logo and campaign theme, is the one presented as 'New' information. The misplacement of elements rendered the texts incoherent even to those that applied a Euro-centric approach to the reading of texts because compositional meaning was inaccessible.

5.2.3 RTSA texts as ideological constructs of unequal power relations

It has been established that RTSA campaign materials are largely constructed to reflect the social relations that exist between the producers of these texts (RTSA) and the viewers (road users).

The use of persuasive language and commands to communication road safety information is meant to enforce the road traffic and safety regulations. Through these stylistic devices, the producers impose their ideology on road safety on the viewers, who on the other hand should abide. The ‘idealised’ information in most posters and billboards takes the form of ‘commands’ and ‘questions’ as evidenced in figure 1. The ‘idealised’ information is a question that functions as a *demand*. The fact that the question is subjectless, typical of commands, it forcefully demands a response from the audience. The question is accompanied by an assuring response from the two represented participants: *Going out tonight? So are we*. This assertion is further justified by the narrative in visual mode.

If the represented participants in a visual gaze at the viewers the image act is a *visual demand* (See Kress et al, 1996). In figure 1, the two represented participants, who are clad in RTSA uniforms, authoritatively stare at the audience. ‘Questions’ have been used in the texts in figures 3, 4, 5 and 6. On the other hand, ‘commands’ in the form of directives are also frequently used. Some examples include the billboard in *Figure 2: Don’t Drink and Drive*; *Figure 15: Buckle up*, *Figure 19: Adhere to road signals*; *Figure 26: Stick to basics*; *Figure 29 Wear a helmet*.

5.2.4 Use of abstract modes

One of the reasons for the incoherence in RTSA texts pertains to the use of abstract modes. It was found that either the visual or graphic mode was abstract. In some instances, both modes were ambiguous. As a matter of fact, coherent multimodal texts are those that communicate a specific, clear and straightforward message. This means that the text must make itself easy and accessible to the viewers or readers who, in most cases, have no time to spend reading complicated messages. If the image is abstract deciphering of the message becomes rather

difficult. Due to the ever increasing numbers of road traffic accidents, one would expect that campaign co-ordinators would ensure that billboards and posters are designed as simply as possible, making them accessible and comprehensible to the audience. By making images familiar to the audience, it is assumed that they would understand and comprehend such images. In road safety awareness campaigns, the intention of the producers of billboards and posters is to design texts whose messages can easily be decoded by the target audience driving or walking past.

5.2.5 Co- occurrence of visual and graphic modes in meaning-making

At the micro-level analysis, it was found that in many cases, the visual mode alone was not coherent enough to convey a meaningful message, just as the graphic mode was not. The two modes needed to ‘hang together’ in order to convey any meaning. In certain instances, even where the two modes were read in collaboration, it still required a great deal of intertextual knowledge and experience to effectively decode the message. This was because there was minimal coherence between the modes. Visual and verbal elements should be considered as contributing to an integrated text. They refer to the spatial composition of a text as an overarching code whose rules and meanings provide the multimodal text with the logic of its integration, and discuss composition in terms of three interrelated systems: information value, salience and framing. Information value refers to the placement of elements in a composition that ‘endows them with the specific informational values attached to the various ‘zones’ of the image: left and right, top and bottom, centre and margin (See Theoretical Framework pages)

5.2.6 Complex and Ungrammatical linguistic constructions

Appropriateness of language and context is one of the functional concepts that Halliday and

Hasan (1985) mention as key factors in the configuration of meaning in a communicative event. Using sophisticated and ungrammatical linguistic constructions may lead one to the opinion that authors of RTSA texts did not take the time nor make the effort to delve deeper into the effects their texts would have on the audience. The language of choice used in these forms of media was clearly earmarked for audiences with a sophisticated understanding of English disregarding the audience who have difficulty in comprehending English. RTSA texts appear designed as information service tools for the formally educated middle class rather than resources for interactive discourse practice for all Zambian road users.

It might also be argued and concluded that the campaign emphasises status difference and unequal power relations between those with high level proficiency in English (most of the posters demands this) and others with low level proficiency. Semantically, the authors fall far short of making sense to someone who is either completely illiterate or of average literacy level. A message like '*Buckle up*' makes no sense to someone of limited literacy, but to the educated middle class, the phrase verb means '*fasten the seat belt*'. Even then, the educated audience first has to consciously interpret the message to reach the level of comprehension.

Likewise, another theme used in RTSA poster is '*Dicing with life*' linguistically, this does not make sense. Using metaphoric phrases to lure audiences into a message is not practical if the intention is to get the audience to change behaviour. There is also a sense in which the texts are biased against those in remote areas who might not be familiar with the trendy language and visuals depicted in RTSA texts. In some instances, the ungrammatical nature of the graphic constructions affected the intended meaning. For example in Figure 1, the question placed at the 'top' is subjectless, while the statement placed at the 'bottom' lacks lexical cohesion due to the

use of a wrong lexicon ‘*loose*’ instead of ‘*lose*’. In all, there is an incorrect assumption that the target audience of the multimodal texts are all equally competent in the new literacies and that the audience possess sufficient reading skills to indulge in the new literacy practices.

5.2.7 Use of animations

The study has further established that the incoherence in RTSA texts is sometimes due to the use of sophisticated symbols and animations. During the analysis of the data, it was found that some texts contained animated images instead of real ones. Indeed, to a large extent, the use of animations deprived the texts of their credibility and truthfulness. For example, in figures 17 and 18, the texts use animated participants, while in figure 7 the animations are accompanied by sophisticated symbols which require the application of mathematical and scientific knowledge in order to decipher the intended meaning. It should be mentioned that road safety awareness programmes are purely qualitative. This means that the visual messages in the campaign materials should appeal to the audience’s experiential reality by reflecting events and participants that are real and truthful.

However, that is not the case with texts in figures 7, 17 and 18. In these texts, the visuals have low modality because the audience’s real world is not depicted in the narratives. Thus, the texts communicate in a distant and impersonal fashion which does not guarantee representational meaning. The use of animations rather than real objects does not only affect the modality of the text, but also the interpersonal relation between the image and the viewers, because the latter feel detached from the image. For this reason, contextualizing the visual image becomes a difficult task for the audience (See Kress et al, 1996).

5.2.8 Choice of colours and projection of mixed messages

The use of colours in a multimodal text involving image and linguistic information represents a particular mood or feeling which, if ignored, can ultimately affect the coherence of the text as is the case with some RTSA texts. It is not clear whether the presentation of linguistic messages in mixed colours was a matter of choice or oversight by the producers of RTSA texts. The fact of the matter is that colours in a multimodal text have meanings; thus, a conscious thought should be applied in the choice of colours so that there are no disparities in the projected meaning of the text. It is clear that attaching meaning to colour is a Western tradition, and interpreting the symbolic meanings behind the choice of certain colours requires a Western schema which may not be there in the target audience.

Undoubtedly, RTSA texts contain life-saving messages which require a serious mood with which to decode the intended meaning. A mixture of certain colours has the potential to project mixed interpretations and consequently distort the intended meanings. For example, the graphic messages in Figures 3 and 21 are presented in *red* (depicting danger), while the other message is in *white* (depicting purity and chastity). Yet, the themes in the two texts are associated with the dangers of '*drink driving*' and '*overloading*', respectively. Other than that, the text in Figure 22 has a mixed colour scheme. The visual is placed against a green empty background. The colour *green* is associated with the 'restoration of depleted energy or rebirth' (See Kress et al, 1996).

Apart from that, the graphic message is captioned in *white* (depicting purity and innocence) and then surrounded by a *blue* (honesty and trust) coating. Undoubtedly, a mixture of these colours (blue, green and white) contradicts the theme of the text, which is '*adherence to road signs*'. It is worth noting nevertheless that the symbolic meanings we attach to particular colours normally

change according to context. Whilst *red* can depict passion, it could also depict danger. *White* in most instances is associated with purity and innocence. Colour can also be described in terms of tone and saturation. Tone refers to the degree of lightness or darkness of a coloured area. Saturation refers to the degree of purity in a colour. The full meanings of the colours used in the posters are described below (Kress & van Leeuwen, 1996):

- (i) *Red*: is associated with our most physical needs and our will to survive. It exudes a strong and powerful masculine energy. It depicts strong leadership qualities, warmth, passion and excitement. It can also depict anger and danger and hostility.
- (ii) *White*: is associated with purity, innocence, completion, chastity and cleanliness. It opens the way for the creation of anything the mind can conceive because its basic feature is impartiality and independence.
- (iii) *Green*: is the colour of balance and harmony. It is the colour of growth, the colour of spring and rebirth. It renews and restores depleted energy. It gives humans the ability to love and nurture themselves and others unconditionally.
- (iv) *Black*: relates to the hidden, the secretive and the unknown, creating an air of mystery. It keeps things bottle up inside, hidden from the world.
- (v) *Blue*: is associated with trust, honesty, loyalty and integrity. It is also associated with responsibility, inner security and confidence.

5.2.9 Semantically overloaded texts

Some texts were overloaded with many visual signs which had no explanation. This semantic imbalance affected the coherence between the graphic and visual information in the process of meaning-making. For example, the text in figure 21 is overloaded with road signs which are not

explained. The graphic information *'This is what it takes to be a safe road user'* does not sufficiently allude to the theme of the text: *Adhere to road signs* and neither does it contribute to the process of meaning-making. This makes the text incoherent because it contravenes the regulative principles of textual communication which requires that a text should be used with minimum effort. The semantic overload had implications on the interpretation of meaning. Only people who had intertextual knowledge about such signs were not able to decipher the intended meanings. Thus, if messages in road safety awareness texts are not regulated and coherently packaged, the producers risk not fulfilling their objects.

5.3 Conclusion

This chapter has presented and discussed the findings of the present investigation. The chapter has also provided a summary of the shortcomings which hinder coherence in RTSA texts. The study has established that messages in RTSA texts are not easily accessible, especially to those without prior knowledge. Much as some road users are aware of the existence of RTSA as a road safety regulator, they are ignorant about its campaigns and objectives. One can attribute this discrepancy to the hidden messages or abstract images contained in the campaign materials which make it rather difficult for those with linguistic constraints to decipher the meaning. This indicates that being able to recall a billboard does not imply an understanding of the brand which is generated through the mental image that the brand icon creates in the reader's mind. According to Bok (2010), branding enables the reader to decode the icon and generate an association with the meaning of the brand.

In the case of RTSA texts, one wonders what apparent association is generated by such captions as *'Buckle up'*, *'Dicing with life'*, *'Help us help you'*. Where a low level of awareness exists of

the symbolism of the brand icon, it is important for the advertiser to keep the messages simple, predictable and repetitive so that the target audience can easily develop an understanding of the product or service. Tomaselli (1999:32-33) observes, “If the underlying meanings of the brand icon are not immediately apparent, or are not interpreted as intended, there is limited attention given to the advertisement or a discrepant decoding of the messages may occur”. Based on this observation, it has become evident that semiotic resources in RTSA texts lack coherence in terms of content and context and this ultimately affects the process of meaning-making.

CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

6.0 General

This chapter concludes the investigation embarked on in the present study. It is divided into three sections. The first section is an overview of the research. The second section offers a general conclusion on the study. The last section provides recommendations on the improvement of RTSA materials for use in road safety awareness campaigns.

6.1 Research overview

The main purpose of the study was to analyse textual and visual messages on road safety awareness in RTSA billboards, posters and brochures in order to establish their correlation, and how meaning is conveyed. The investigation set out four specific objectives and these were: (i) to do a textual analysis of the visual and graphic information in RTSA road safety texts; (ii) to establish whether the graphic and visual information in RTSA texts cohere in the process of meaning-making; (iii) to examine the correlation between the visual and graphic information in road safety awareness texts; and (iv) to determine how meaning is enacted in road safety awareness texts.

From the findings presented in the previous chapter, it is clear that the above objectives have been met. In terms of theoretical framework, the study applied, the Systemic Functional-Multimodal Discourse Analysis (SF-MDA) approach, drawing on Halliday's (1994) metafunctional principles of language use, on one hand , and Kress and van Leeuwen's (1996) visual grammar , on the other. Using a text- based MDA approach, the study analysed the

linguistic and visual tools employed in the campaign materials. Overall, the findings indicate that semiotic modes in RTSA texts are generally incoherent owing to a number of reasons. These include: use of abstract and ambiguous modes; use of complex and ungrammatical linguistic constructions, misplacement of compositional elements; and semantic overload.

6.2 Conclusions

Based on the findings of this study, it has become apparent that meanings in RTSA road safety campaign materials are not properly enacted. This is due to the use of incoherently packaged semiotic resources. It has been established that, in most instances, both the graphic and visual modes communicate messages which are unclear and ambiguous. Therefore, the likelihood of misinterpreting the intended messages by the larger population is very high. In line with Bok's (2010) observation, effective publicity is not just a matter of displaying large, colourful billboards and posters; it requires that messages are coherently packaged to enhance advocacy and behaviour change. Since the challenge relates to the packaging of information, there is need for more inventiveness on the design and packaging of messages in posters, billboards and brochures.

In order to construct result-oriented publicity materials, an effective communication model is needed. The model should include properly designed campaign materials in which the semiotic resources coherently project the intended messages. That way, the campaign would impact positively on the target audience.

6.3 Recommendations to improve the construction of RTSA texts

The study offers the following suggestions towards the improvement of RTSA campaign

materials:

6.3.1 Choice of language

The principal function of language is communication. As defined by Sapir (1921:8) “language is purely non-instinctive method of communicating ideas, emotions and desires by means of voluntarily produced symbols”. From a general perspective, communication constitutes an exchange of meanings which are hinged on the register used. Halliday defines the term register as “specific lexical and grammatical choices as made by speakers depending on the situation of context, the participants of a conversation and the function of the language in the discourse register.

Producers should be familiar with the fact that effective communication depends on the appropriateness of the language used and the context of situation. Just as speech, a ‘text’ is a mode of communication and a constituent of context of situation through which meanings and actions are negotiated and interpreted. There are three elements of context of situation that serve to interpret the social context of text in which meanings are exchanged. These variables (field, mode, tenor) taken together characterize the situational context specifically, and, thus, enable producers to construct texts that are coherent. These elements are discussed below.

6.3.1.1 Field of Discourse

Producers should ensure that activities and processes depicted in the text are clearly recognisable. In other words, the graphic mode should contain specific and unambiguous information about the subject-matter. According to Halliday (1994:22) the ‘field of discourse’ is “the total event, in which the text is functioning, together with the purposive activity of the speaker or writer, it thus includes the subject-matter as one element in it”. *Field* refers to what is

happening, to the nature of the social action that is taking place.

6.3.1.2 Tenor of Discourse

The ‘tenor of discourse’ describes the people (participants) taking part in a communicative event as well as their statuses and roles: what kinds of role relationships obtain among the participants, both the types of speech role that they are taking on in the dialogue and the whole cluster of socially significant relationships in which they are involved? These are summarised as follows:

- (i) *Agentive role* or the institutional (or not) roles of the participants, such as RTSA officer/target audience.
- (ii) *Social role* or the power relationship between them which may be hierarchic or non-hierarchic and also conferred social status and gender, e.t.c.; for instance, expert/novice. In **6.3.1.2** (i), the relationship is between *traffic law enforcers and the road users*.
- (iii) *Social distance*, or nature of contact the participants may have which ranges from personal to formal settings. For instance, in **6.3.1.2** (ii), the social contact is a formal one. Social relations may be affected by the context of culture with each factor given more or less value.

6.3.1.3 Mode of Discourse

In the construction of the graphic mode, it is important to examine what the language will achieve in a particular context. Halliday (1994: 22) defines ‘mode of discourse’ as “ the function of the text in the event, including therefore both channel taken by the language – spoken or written, extempore or prepared- and its genre or rhetorical mode, as narrative, didactic,

persuasive, phatic communion and so on” . It refers to what part the language is playing, what is expected of the participants in a particular situation: the symbolic organisation of the text, the status that it has, and its function in the context. For instance, ‘commands’ are persuasive, while ‘statements’ are expository in nature.

6.3.2 Choice of image

Hodge and Kress (1988) write that ‘no single code can be successfully studied or fully understood in isolation’. This recognises that meaning is not restricted only to the linguistic code, but ”resides so strongly and pervasively in other systems of meaning, in a multiplicity of visual, aural, behavioural and other codes, that a concentration on one is not enough. In the same way as the linguistic information fulfills three functions: field, tenor and mode simultaneously, so too does an image: “any image must either be a ‘demand’ or an ‘offer’ *and* select a certain size of frame *and* select a certain attitude” (Kress & van Leeuwen, 1996: 148-149). Visual communication has several resources for constituting and maintaining the interaction between the producer and the viewer of an image.

6.3.2.1 Visual and meaning potential

These structures help to determine the ways that various kinds of visuals organise and represent their meanings (ideationally). The visual resources for representing interactions and conceptual relations between people, places and things in visuals recognise two major processes: *Conceptual* and *Narrative processes*. Both these processes represent patterns of experience and phenomena in terms of sequences of process configurations, and configurations of processes, participants, circumstances, objects, qualities, and quantities (Kress & van Leeuwen, 1996: 56). *Narrative processes* deal with depicted actions and events, while *conceptual processes* depict

states of being which have the essence of constancy, and their spatial arrangements are in a sense transitory. Most texts which were analysed in this study were narrative in nature. Thus, it is incumbent upon the producers to construct narratives that are accessible to the target audience.

6.3.2.2 Visual and social relations

As producers, it is important to utilise resources which both constitute and maintain interaction between them and viewer(s) of a visual. Thus, viewing a visual involves "being located in a particular *social* way by and in relation to the image" (Kress and van Leeuwen 1996:23). This happens despite the fact that the producer of the visual is very often absent physically from the communicative situation. The way a visual addresses its viewer determines what kind of relationship is created between the participants who communicate with each other via visual means (RTSA and the viewer(s) for example), and those depicted in the visual (the people, places and things shown). This is important because the placement of the viewer and the visual socially will have a significant influence on how the visual is read and used, or in other words, their relative social placement affects what may be represented, the ways that it is represented, as well as how it may be read and put to use. Social relations in a visual can be constituted in three ways:

6.3.2.2.1 Contact

In terms of contact, a visual can directly or indirectly address its viewers. A distinction is made between two kinds of *image acts*. These are *demands* and *offers*. Depending on their intentions, producers should be able to select image acts that can demand or offer information. The realisation of a visual *demand* is determined by the presence or absence of a *gaze*, which indicates a form of direct or indirect address to the viewer. The producer is thus using the image

to act on or do something to the viewer. The *gaze* always takes the form of a vector formed by the *glance* of one or more of the animate *represented participants* outwards to the viewer of the visual. This may often be supported by some kind of physical gesture. In essence what the producer is doing is indirectly getting a response from the viewer in terms of entering into some kind of social relation, which in this case is to accede to or deny the demand (Kress et al, 1996:122-123).

In a *visual offer*, represented participants are always looking away from the viewer - there is no look being projected directly at the viewer because “it ‘offers’ the represented participants to the viewer as items of information, objects of contemplation, impersonally, as though they were specimens in a display case”. The concept of *contact* is instrumental in image selection. The choice of visuals reflects the authors’ intention, which could be, demanding a response or basically offering information. In an instance where the image is complex or abstract, the viewers simply ignore it. This is because the image neither demands nor offers information. Such a visual choice flouts theoretical foundations for visual communication.

6.3.2.2.2 Social distance

The use of size of frame, in a similar way to the ways it is used in cinematography, can be used to convey a sense to the viewer of his or her social closeness in relation to the represented participants (See *Table 2 on page 44*).

- (a) *Attitude or ‘point of view’*: A visual is usually viewed with a certain point of view which can be subjective or objective depending on what the producers intend to achieve. A subjective perspective can either involve or detach the viewer. It can also trigger viewer superiority, inferiority or equality. Subjective visuals project a very clear distinction

between the represented world, which requires most of the viewer's attention, and the frame or physical space in which the image is viewed. The image is more detailed than the background. The designer of the subjective visual has selected the point of view for the viewer, and consequently there is a kind of designer-to-viewer relationship set up whereby the point of view of the designer is 'forced' onto the viewer. *Objective visuals* on the other hand, ignore the viewer and there is a disregard of any reference to the viewer in terms of who or where he or she is, or the actual time setting.

(b) *Visual modality*: A coherent visual has a great sense of credibility and truthfulness. This is what modality is about. Designers can utilise a continuum of techniques to represent people, places and things as though they are real, as though they actually exist in this way or not — “as though they are imaginings, fantasies, caricatures e.t.c” (Kress & van Leeuwen, 1996:161). Visual modality is considered to be an aspect of socio-cultural interaction because what one group considers credible may not be judged the same way by another group.

Therefore, modality judgements are social, dependent on what is considered real (or true, sacred) in the social group for which the representation is primarily intended”. The calls for the producers to re –examine the visual content in campaign materials so that it does not act as a barrier to the interpretation of the intended message. That is to say, the visual should be coded in such a way that its meaning is decipherable to all the target viewers regardless of their social status, age or educational levels.

6.3.3 Placement of elements in a composition

The placement of textual and visual information in a multimodal text is very important.

Producers should examine how much information is placed to the top or bottom, or and in terms of perspective, or how much is foregrounded and how much is in the background. There is a strong physiological element to the interpretation of this layout code, in that it is based on the viewer's kinaesthetic sense of balance and weight. The following are the main features of a composite text:

- (a) The *Given-New* structure enables producers to examine where to place their information. *Given* information is recognisable on the left, while *New* piece of information is recognisable on the right hand. In essence, RTSA logos and campaign themes should be presented as *Given* information so that the viewers pay more attention to the *New* piece of information on the right side.
- (b) In Western cultures (other cultures may utilise a differing structuring), a common compositional structuring involves the top of a visual occupying a special place, which is the space of the 'ideal' or most highly valued, with the bottom of a visual occupying the place accorded to the 'real' or less highly valued (See Kress et al, 1996:193). This *Ideal-Real* structure, (in the same way as the *Given-New* structure) also applies to both the composition of single images as well as composite layouts involving image(s) and verbal text.
- (c) Besides the relative placement of elements on the page and the information value accorded to them, there is also need to vary their 'visual weight so that important elements stand out in a text. This is called salience.
- (d) Within a single visual or multimodal (composite) text the elements or groups of elements presented can be connected or joined together by various graphic techniques, giving a strong sense that they 'go together', that they should be viewed as part of the

same message; or they can be marked off or disconnected from each other, conveying the sense that they should be viewed. This is called framing.

- (e) Lines can be drawn to represent elements in a visual by the direction of gaze, arms, and the structural features of objects, and also by the arrangement of abstract graphic elements, where the eye is guided away from the most to the next salient element (in terms of size or colour saturation etc.). These are called vectors.

6.3.4 Regulation of semantic content

During the analysis phase, it was found that some RTSA texts were overloaded with a lot of information which needed to be interpreted. In certain instances, even hand-outs such as brochures contained a lot of visual signs that had no corresponding linguistic explanation. Such brochures need to have their content regulated. If a text has a semantic overload it disadvantages the audience in terms of interpretation and understanding. Individuals seeing them for the first time, especially those from remote areas where there is no sophisticated road infrastructure are at a loss. It is extremely difficult for them to interpret the intended message, thus defeating the objectives of the campaign. The way forward is to ensure that billboards and posters, especially those placed in densely populated areas, are not overloaded with many messages.

6.3.5 Summary of Recommendations

This section has outlined recommendations to improve the construction of RTSA campaign texts, in the wake of achieving maximum road safety sensitisation. Based on the findings in chapter five, the study has clearly elaborated what specific factors can be put into consideration by the producers. It has been established generally that these producers of RTSA texts should endeavour to make appropriate visual and linguistic choices that can convey clear, specific and

unambiguous messages. It should be born in mind that these choices are a product of the register feature of context of situation which makes them central to collective meaning making and negotiation. Therefore, to avoid communicating silent messages that can be destructive to the objectives of the campaign, the producers ought to identify areas where there is disparity in discursive practices. For instance, a middle class audience with proficiency in English may be the reason RTSA has chosen to communicate in sophisticated textual and visual modes, at the expense of the lowly educated. However, a more desirable effect would be achieved if the producers considered eliminating such social disparities.

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APPENDICES

APPENDIX I: RTSA PROFILE

The Road Transport and Safety Agency (RTSA) was established through an Act of Parliament, the Road Traffic Act No. 11 of 2002.

FUNCTIONS:

- i. To regulate traffic;
- ii. To manage road transport through regulation;
- iii. To manage road safety engineering;
- iv. To conduct road safety campaigns through education and publicity;
- v. To register and licence drivers, motor vehicles and commercial vehicle operators;
- vi. To licence and register driving schools and driving instructors;
- vii. To conduct physical and technical examination on motor vehicles to ascertain their physical details and road worthiness;
- viii. To implement international treaties and protocols on road transportation within Zambia and across its territories; and
- ix. To regulate cross boarder transportation.

OUR PURPOSE

The purpose of the Road Transport and Safety Agency is to contribute to national economic development through the implementation of Government policy on road transport, traffic management and road safety. RTSA intends to achieve its purpose by systematically implementing its Corporate Plan 2006-13 whose major focus is summarized as:

- i. Implementing measures that are aimed at protecting the lives of all road users and their property through the introduction of appropriate road safety engineering, safety education, publicity and enforcement of road traffic regulations;
- ii. Undertaking functions relating to registration, examination and licensing of drivers and motor vehicles in Zambia; and
- iii. Establishing a sustainable and sound financial base for the provision and maintenance of road infrastructure.

OUR VISION

RTSA's vision is "to attain an efficient and safe road transport system".

OUR MISSION

RTSA's mission is "to promote road transport and safety through education, regulation and law enforcement".

AGENCY'S OPERATIONS

Road User Charges

The Road Transport and Safety Agency (RTSA) was established through an Act of Parliament, the Road Traffic Act No. 11 of 2002 under the Ministry of Communications and Transport (MCT)

One of the main goals of the Road Sector Investment Programme (ROADSIP) is to establish a sustainable and sound financial base for the provision and maintenance of Zambian road infrastructure.

The Road Transport and Safety Agency (RTSA) is responsible for the collection of Road User Charges (RUCs). Road User Charges are fees that are collected under the Road Traffic Act No. 11 of 2002 and the Tolls Act.

The main categories of RUCs collected by the RTSA on behalf of the Government of the Republic of Zambia (GRZ) are:-

- i. Motor Vehicle Registration Fees;
- ii. Road Tax Licences;
- iii. Road Service Licences;
- iv. Road Worthiness Motor Vehicles or Trailers;
- v. Driving Licenses;
- vi. Toll Fees; and
- vii. Cross Border Permits.

APPENDIX II : COLOUR SCHEME AND MEANINGS

- (vi) *Red:* is associated with our most physical needs and our will to survive. It exudes a strong and powerful masculine energy. It depicts strong leadership qualities, warmth, urgency, passion, excitement and ambition. It can also depict anger and sexual passion, blood, danger and hostility.
- (vii) *White:* is associated with purity, innocence, completion, chastity and cleanliness. It opens the way for the creation of anything the mind can conceive because its basic feature is impartiality and independence.
- (viii) *Green:* is the colour of balance and harmony. It is the colour of growth, the colour of spring and rebirth. It renews and restores depleted energy. It gives humans the ability to love and nurture themselves and others unconditionally.
- (ix) *Black:* relates to the hidden, the secretive and the unknown, creating an air of mystery. It keeps things bottle up inside, hidden from the world. It creates a barrier between itself and the outside world, providing comfort while protecting its emotions and feelings and hiding its vulnerabilities, insecurities and lack of self-confidence.
- (x) *Blue:* is associated with trust, honesty, loyalty and integrity. It is sincere, reserved and quiet, and hates confrontation. It is also associated with responsibility, inner security and confidence. It also exhibits inner security and confidence.
- (xi) *Yellow:* relates to acquired knowledge. It resonates with the logic side of the brain stimulating our mental faculties and creating mental agility and perception. It depicts the mind and intellect. It can mean optimism and cheerfulness. On the

other hand it can suggest impatience, criticism and cowardice.

- (xii) *Purple*: is related to imagination and spirituality. It stimulates the imagination and inspires high ideals. It is an introspection colour allowing us to get in touch with our deeper thoughts.
- (xiii) *Orange*: radiates warmth and happiness, combining the physical energy and stimulation of red with the cheerfulness of yellow. It offers emotional strength in difficult times. It helps us to bounce back from disappointments and despair, assisting in recovery from grief.
- (xiv) *Pink*: a combination of white and red, pink contains the need for action of red, helping it to achieve the potential for success and insight offered by white. It represents compassion, nurturing and love. It relates to unconditional love and understanding, and giving and receiving of nurturing. Pink is feminine and romantic, affectionate, intimate, thoughtful and caring. It tones down the physical passion of red replacing it with a gentle loving energy.
- (xv) *Gold*: is the colour of success, achievement and triumph. It is associated with abundance and prosperity, luxury and quality, prestige and sophistication, value and elegance, the psychology of this colour implies affluence, material wealth and extravagance. Gold symbolises generosity and giving, compassionate and loving.
- (xvi) *Brown*: is a serious, down-to-earth colour signifying stability, structure and support. It is the colour of material security and the accumulation of material possessions. Brown is honest, genuine and sincere. It relates to the hardworking, industrious and reliable, with both feet planted firmly on the ground.

(Adapted from Kress and van Leeuwen (1996))