

# TRANSITION

Issue 44 2017

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**JOURNAL OF THE INSTITUTE OF DEVELOPMENT STUDIES  
AND THE FACULTY OF SOCIAL SCIENCES  
UNIVERSITY OF GUYANA  
TURKEYEN CAMPUS**



# **TRANSITION**

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# CONTENTS

	Page
<b>1 Biological Positivism: Evolution, Development and Contemporary Applications</b>	<b>6</b>
Evelina Singh	
<b>2 Equity Theory and Doping in Cycling</b>	<b>31</b>
Michael Scott Hector Edwards	
<b>3 Challenges and Opportunities of SPS and TBT Measures for Increasing Food and Agricultural Exports from Guyana</b>	<b>46</b>
Dianna DaSilva-Glasgow Roger Hosein	
<b>4 Corruption and State Capture under two Regimes in Guyana: A Plural Society Approach</b>	<b>86</b>
Duane Edwards	
<b>5 Motivation and Doping: A Meta-Cognitive Framework for Understanding Athletes' Attitude and Behavior</b>	<b>125</b>
Hector Edwards Diana Gobin	

## BIOLOGICAL POSITIVISM: EVOLUTION, DEVELOPMENT AND CONTEMPORARY APPLICATIONS

Evelina Singh

### ABSTRACT

*One of the most confounding questions as regards criminal behaviour is whether criminals are born or made (nature or nurture). For decades, social scientists have held to the postulation that criminal behaviour is almost autonomously caused by social factors. However, contemporary studies in the fields of genetics, evolutionary psychology and neuroscience have weakened that postulation. There is now compelling evidence that indicate that both biological and social factors are associated with criminal behaviour. Consequently, the criminology theory of biological positivism has once again gained momentum and as such this study seeks to trace the evolution, development and contemporary applications of biological positivism. The relationship of genetics, evolutionary psychology and neuroscience with criminal behaviour will be explored. Further, the implications of biosocial research on crime prevention will be highlighted.*

**Key Words:** Biological positivism, criminal behaviour, evolutionary psychology, genetics, neuroscience

## INTRODUCTION

The question of whether criminal behaviour<sup>i</sup> is caused by nature or nurture has invoked much debate among criminologists and still confounds many theorists and researchers (Fox 2017). Criminology has many theories that seek to answer that question. However, most of those theories are dichotomized according to nature and nurture, with nurture almost exclusively dominating social science research (Tielbeek *et al.* 2012; Fox 2017). Notwithstanding, as the *corpus* of empirical evidence on the association of both biological and social factors on criminal behaviour increases, a criminology theory that continues to be dichotomized diminishes its relevance.

Biological positivism remains relevant because its contemporary manifestation as the biosocial theory of criminology associates both biological and social factors with criminal behaviour as elucidated in the studies discussed in this article. Notwithstanding that biosocial criminologists have provided compelling evidence of the association of both biological and social factors with criminal behaviour, mainstream theories of criminology have not incorporated those findings (Barnes *et al.* 2014). It is pellucid that criminal behaviour must be explicated from a multidisciplinary standpoint; therefore, this article seeks to trace the evolution, development and contemporary applications of biological positivism. The article explores the relationship of genetics, evolutionary psychology and neuroscience with criminal behaviour and highlights implications of biosocial research on crime prevention.

## EVOLUTION OF BIOLOGICAL POSITIVISM

Biological positivism which is also referred to as the biological variant of the predestined actor model of crime and criminal behavior is anchored in the works of Lombroso, Ferri and Garofalo who postulated that criminology should be based on scientific studies (Burke 2014). The predestined model of crime and criminal behaviour

is also known as positivism which developed as a rejection to the rational model of crime and criminal behaviour (Burke 2014). The rational model of crime and criminal behaviour is rooted in the belief that individuals possess free will and they make rational choices about their behaviour (Burke 2014). Positivism rejected the prominence of free will and postulated a paradigm based on determinism because it was believed that there were internal and external factors that influenced criminal behaviour that individuals had limited control over (Burke 2014).

The notion of evolution and science was one of the intellectual foundations of positivism (Burke 2014). Biology was significantly impacted by the works of Darwin which is said to signify the end of pre-scientific philosophy about human behaviour (Burke 2014). Social evolutionism<sup>ii</sup> which was greatly impacted by the works of Spencer who postulated that human characteristics are inherited was another intellectual foundation of positivism (Burke 2014). Spencer is acclaimed to have had the most profound influence on positivism (Burke 2014). Comte had also profoundly impacted positivism due to his postulation that data on human nature and society should be collected using the methods employed in the natural sciences (Burke 2014).

Lombroso is credited as being the father of modern criminology since he laid the scientific foundation for the study of criminology via the meticulous collection of data that was measurable and verifiable and subjected to rigorous analysis (Williams 2012). Lombroso was an Italian medical doctor who also pursued studies in psychiatry, hygiene, forensic medicine, anthropology and criminology. In 1863 he commenced teaching psychiatry, nervous pathology and anthropology at the University of Pavia and from 1871 to 1873 he was the director of the insane asylum in Pesaro, after which he became a fulltime professor of forensic medicine at the University of Turin (Mazzarello 2011). Lombroso gained infamy for his postulation that criminality, madness and genius all resulted from the same psychobiological condition of degeneration (Mazzarello 2011). The stimulus for that postulation was the physical abnormality he noticed



while examining the brain of a criminal. He attributed the brain abnormality to an evolutionary reversion.

Lombroso hypothesized that if a criminal was an evolutionary reversion, his anthropological features and physiological reactions would diverge from that of a normal 19<sup>th</sup> century man (Mazzarello 2011). In his early studies Lombroso studied the cadavers of executed criminals and concluded that criminals suffered from degenerate physical characteristics, such as, sloping foreheads, receding chins, unusual sized ears, twisted nose and very long arms attributed to earlier forms of evolution which made them atavistic (Burke 2014). Biosocial criminologists deemed Lombroso's works on physical attributes to be methodologically flawed and unscientific because the criminals in his studies were Sicilians who were different in appearance to Italians and as such they diverged on the hypotheses of the born criminal and atavism (Carrier and Walby 2014).

Notwithstanding the divergence of biosocial criminologists on Lombroso's hypothesis of the born criminal, that hypothesis permeates contemporary biosocial studies of genetics, evolutionary psychology and neuroscience as will shortly be discussed. Consequently, Lombroso's paradigm has been ptoleimized as opposed to revolutionized as proclaimed by new biosocial criminologists because biosocial criminology retains Lombroso's basic framework of the born criminal (Carrier and Walby 2014).

## **GENETICS AND CRIMINAL BEHAVIOUR**

It is commonly perceived that genetic explanations of the etiology of crime are new; however, such explanations are as old as the field of criminology and had profoundly shaped the thinking of Lombroso (Gibson 2002). Early studies on genetics and criminal behaviour employed the methodology of twin studies. Thus, a set of questions was administered to a sample of monozygotic (identical) twins and then those same questions would be administered to a sample of

dizygotic (fraternal) twins and the results were compared. If the results showed that the responses of the monozygotic twins were more similar than those of the dizygotic twins, it was assumed that this additional similarity was as a result of additional genetic similarity (Schwartz 2005). Schwartz (2005) criticized this assumption contending that it results in a misunderstanding between hypothesis testing and parameter estimation.

Hans Eysenck was one of the first social scientists to postulate that criminal behaviour may be influenced by factors that were not social (Rafter *et al.* 2016) and as such executed research on genetic and neurobiological influences on criminal behaviour utilizing twin data (Eysenck 1964). Eysenck and Prell (1951) executed an experimental study on the inheritance of neuroticism<sup>iii</sup>. Their sample comprised 25 pairs of monozygotic twins, 25 pairs of dizygotic twins and a control group of 21 children that suffered from neuroticism. Seventeen tests associated with personality were administered to the participants. The correlations derived for the monozygotic and dizygotic twins were 0.851 and 0.217 respectively which resulted in an  $h^2$  value of .810; thus, suggesting that heredity accounted for approximately 80% of individual differences in the neuroticism factor. They concluded that neuroticism is not a statistical artifact but comprised an inherited biological unit. Notwithstanding that the accuracy of their measurement may be questioned, Eysenck and Prell were the first to identify correlations between genetics and criminal behaviour (Fox 2017).

In the early stages of the development of the area of genetics and criminal behaviour, it was believed that genetic abnormality as in the case of the XYY syndrome (males being born with an extra Y chromosome) could be responsible for criminal behavior in males. The condition of males being born with an extra Y chromosome is a relatively common occurrence since 1 in 1000 male live births has the condition (Boyd *et al.* 2011). The XYY syndrome (Jacob's syndrome) hypothesized that males born with an extra Y chromosome were prone to aggressive behaviour<sup>iv</sup> and were more likely to commit crimes. In 1965 Jacobs *et al.* (whom the syndrome was named after)

executed a chromosome survey of 197 male patients (psychopath criminals) at the State Hospital in Carstairs, Scotland, 7 of which were found to have the XYY condition. They found that there was an increased frequency of males with the XYY condition in the institution; however, it was not pellucid whether this increased frequency was caused by aggression or mental subnormality<sup>v</sup> or both.

The further studies executed in the 1960s and 70s on the XYY syndrome and criminal behaviour showed an apparent over-representation of men with this condition in prisons (Finley *et al.* 1973). However, the studies executed on the XYY syndrome were discredited for flawed methodology and lack of empirical support for the correlation between an extra Y chromosome and criminal behaviour (Stochholm *et al.* 2012; Burke 2014). The most profound weakness of the theory lies in the fact that there are many normal and harmless males with an extra Y chromosome (Burke 2014).

As regards methodological flaws of the XYY studies, according to Stochholm *et al.* (2012) the studies executed have been confined to selected groups of persons of either institutionalized or clinic patients; the sample sizes were small; control groups were poorly defined; types of crimes were inadequately defined; and the studies relied on self-reporting of crimes (See: Jacobs *et al.* 1965; Casey *et al.* 1966; Price and Whatmore 1967; Welch *et al.* 1967; Hook and Kim 1970; Witkin *et al.* 1976; Nanko, 1979; Schröder *et al.* 1981; Fryns *et al.* 1995; Götz *et al.* 1999; Briken *et al.* 2006 and Gosavi *et al.* 2009).<sup>vi</sup> Re and Birkhoff (2015) reviewed 50 years of data on the XYY syndrome and its correlation to deviancy<sup>vii</sup> which included *inter alia* the studies executed from Jacobs *et al.* (1965) to Stochholm *et al.* (2012)<sup>viii</sup> and not surprisingly found that there was no compelling evidence that a male with an extra Y chromosome will be an antisocial<sup>ix</sup> or deviant individual.

Contemporary research has shown that there exist no genes that are responsible for criminal behaviour; rather there are genes that may contribute to specific traits, for instance, aggression, low intelligence<sup>x</sup>, low empathy<sup>xi</sup> and impulsiveness<sup>xii</sup> which when

combined with detrimental environmental factors increases the probability of criminal behaviour (Walsh 2014). Thus, the underlying core principle of biological positivism has shifted from biological determinism to biological predisposition to do harm which illuminated the ptolemization of Lombroso's theory (Carrier and Walby 2014). Notwithstanding, the idea of the environment influencing behaviour is not novel since in later works Lombroso had started to explore the effects of the environment on criminality (Burke 2014).

The study executed on the Dutch Family Criminal Kindred provided compelling evidence that there are genes that maybe linked to traits which when combined with detrimental environmental factors result in criminal behaviour. Fourteen males from the Dutch family in the study by Brunner *et al.* (1993) suffered from a condition that caused them to exhibit borderline mental retardation, impulsive and abnormal behaviours<sup>xiii</sup> and for some, serious physical violence. Records from the town which the family resided indicated that the males in the family had displayed these behaviours for generations. Since the condition only affected the males in the family, Brunner *et al* hypothesized that the gene that caused this condition would be found on the X chromosome.

Brunner *et al.* (1993) tested their hypothesis by using genetic linkage analysis and found that all the males who displayed this condition had a rare mutation which caused them to lack the Monoamine Oxidase A (MAOA) gene and as such could not produce the MAOA enzyme. The MAOA gene codes for the production of the MAOA enzyme which breaks down neurotransmitters which causes nerve impulses to be active or inactive. The males in the family who had the MAOA gene did not display criminal behaviour. It was not until twenty years later that the mutation identified in the Dutch family study was identified in two other families and documented by Piton *et al.* (2013) whose study confirmed the findings of Brunner *et al.* (1993) that the MAOA mutation was linked to mild mental retardation and abnormal behaviour.

Contemporary research on the link between MAOA variants and violence has shown that there is not a direct or main association between MAOA and antisocial behaviours (Ferguson and Beaver 2009). Notwithstanding, there is a remarkable amount of research that shows that low levels of MAOA activity alleles may increase aggression and violence when coupled with adverse environmental conditions as elucidated in the study by Caspi *et al.* (2002).

Caspi *et al.* (2002)<sup>xiv</sup> executed a longitudinal study on the role of the MAOA gene in the cycle of violence in abused (sexual and physical) children in order to determine why some abused children grow up to develop antisocial behaviour (which increases the probability of criminality) and others do not. The sample comprised males from the Dunedin Multidisciplinary Health and Development Study. Approximately 12% of the sample were abused and had low MAOA activity allele and this 12% were responsible for 44% of the convictions for violent crimes. The researchers found that MAOA moderated the effect of the abuse and those who had high levels of MAOA were less probable to develop antisocial behaviour which offered a partial explanation to why not all abused children grew up to victimize others (Caspi *et al.* 2002). Independently genetic (low MAOA) and environmental (maltreatment) risk factors had little effect on antisocial behaviour but when combined they significantly increased the risk of criminality (Caspi *et al.* 2002).

Within approximately the last three decades, one of the most persistent issues related to genetic research is genetic discrimination<sup>xv</sup> (Otlowski *et al.* 2012; Joly *et al.* 2017). Historically, genetic explanations of human behaviour were used to further forms of discrimination such as racism, eugenics<sup>xvi</sup>, sexism; the postulation that there are racial differences in intelligence; and discrimination pertaining to employment and insurance coverage (Gostin 1991; Dolgin 2001; Ferguson and Beaver 2009). Genetic discrimination may lead to similar adverse effects as other forms of discrimination, for instance, social exclusion, loss of opportunities and psychological sufferings (Van Hoyweghen and Horstman 2008). Further, genetic discrimination generates anxiety which may result in individuals

declining to take part in genetic research and even refusing to take genetic tests recommended for medical purposes (Wauters and Van Hoyweghen 2016).

Cognizant of the potential for the abuse of genetic information, the concept of genetic exceptionalism emerged in the mid-1990s and advocated that genetic information is more sensitive than other types of medical information and as such warrants more robust protection (Murray 1997). Consequently, many developed countries formulated laws, policies and moratoria to address the issue of genetic discrimination (Joly *et al.* 2017). Notwithstanding, these initiatives have had some limitations, such as, inadequate public visibility, rigid formulation, offer limited protection and encompass convoluted administrative procedures (Joly *et al.* 2017).

## **EVOLUTIONARY PSYCHOLOGY AND CRIMINAL BEHAVIOUR**

The field of evolutionary psychology seeks to explicate human behaviour by using the history of human evolution as the reference point (Walsh 2014). Evolutionary psychology enhances the field of genetics because it provides the historical account of how genes in the human gene pool evolved (Walsh 2014). Notwithstanding, genetics examine what causes divergences in humans while evolutionary psychology examines the similarities in humans (Walsh 2014). Biologists generally agree that natural selection save and except in the case of mutation is the primary driving force for gene selection and population genetics (Gottschalk and Ellis 2009). Thus, if certain behaviour gives organisms a selective advantage, it is more likely that the genes that foster that behaviour will be passed down to future generations (Ferguson and Beaver 2009).

Criminologists have executed exploratory studies to show how criminal behaviours may have been adaptive from the environments of ancestors; for instance, behaviours exhibited in the quest for

reproductive triumph (Walsh 2014). According to Schwartz (2005), these studies amount to nothing more than stories after the fact and they cannot explain the complexities of human motivation, consequently, they are to be completely discarded. Notwithstanding, in light of contemporary empirical studies (Ellis and Walsh 2000; Beaver *et al.* 2008; Gou *et al.* 2008), evolutionary psychology appears to be more than stories as explicated in molecular genetics research which point to a significant relationship between sex partners and criminal behaviour.

An understanding of the evolutionary and biological processes of normal, adaptive aggression from which extreme violence originates is paramount to the comprehension of the processes which causes some humans to become genetically predisposed to extreme violence (Ferguson and Beaver 2009). Notwithstanding that there may be slight variations in the level of aggression in different cultures aggression pervades all human species (McCall and Shields 2008). Aggression is associated with increased reproductive triumph which is amplified by two ways: mating effort and parenting effort (Buss and Duntley 2006; Gottschalk and Ellis 2009). Males experience more sexual competition so they amplify their reproductive triumph by mating effort while females being more devoted to taking care of their progenies, amplify their reproductive triumph by parenting effort (Buss and Duntley 2006; Gottschalk and Ellis 2009). Thus, mating efforts correlate positively with greater aggression which is associated with violence (Gottschalk and Ellis 2009).

There is compelling empirical evidence that adult male criminal behaviour correlates positively with mating effort (Ellis and Walsh 2000; Beaver *et al.* 2008). These studies indicate that antisocial adult males reported having more than the average number of sex partners and also experienced sexual onset at an early age (Ellis and Walsh 2000). Ellis and Walsh (2000) executed a review of 51 studies which examined the relationship between number of sex partners and criminal behaviour and found that 50 of the studies showed a significant positive correlation between sex partners and criminal

behaviour. They further reviewed 31 studies that tested the correlation between the age of onset of sexual intercourse and antisocial behaviour and found that all of the studies showed a positive correlation between early age of onset of sexual intercourse and greater involvement in criminal behaviour.

Beaver *et al.* (2008) tested the hypothesis that most antisocial persons should have the greatest number of sex partners using data obtained from the National Longitudinal Study of Adolescent Health (Add Health). In wave 3 of the Add Health study the respondents who had attained ages between 18 and 26 years were asked *inter alia* about their sexual experiences, marital history, contact with the criminal justice system and involvement in serious violent behaviour. Further, a subsample participated in DNA testing for genetic polymorphism such as the Dopamine Transporter (DAT1) gene. Beaver *et al.* (2008) examined whether variants of the DAT1 gene correlated with number of sex partners and adult criminal behaviour. They found firstly, that there was a strong positive relationship between sex partners and antisocial behaviour since the same polymorphism of the DAT1 gene which related substantially to number of sex partners also related substantially to antisocial behaviour. Secondly, the variation in both the number of sex partners and male criminality was explained by the variation in the DAT1 gene. Further, in addition to number of sex partners and the DAT1 gene, age was also a statistically significant predictor of criminal behaviour for adult males.

Notwithstanding that the study executed by Beaver *et al.* (2008) was possibly the first study to show that the covariation between mating effort and criminal behaviour was associated with a common genetic route, the researchers did illuminate some limitations in their study. Thus, the genetic subsample from the Add Health may not have been nationally representative and as such generalizations about the larger population must be approached cautiously. Further, given that both the number of sex partners and criminal behaviour are possibly created by multiple genes and the study only examined one gene, there needs to be more research in the area. In addition, the study



was limited to only males.

Similarly, a study executed by Guo *et al.* (2008) showed a positive correlation between sexual partners and delinquency<sup>xvii</sup> due to the DAT1 gene. Guo *et al.* (2008) found that in order to explain a human trait or behaviour, a theory that facilitated the intricate interaction between social circumstantial and personal influences and genetic susceptibilities may be required. That postulation illuminated the gene and environment shift in contemporary biological positivism and gave credence to Schwartz's (2005) contention that pure evolutionary psychology studies cannot explain the complexities of human motivation, which must be done through multidisciplinary studies as are currently being executed by biosocial criminologists.

## NEUROSCIENCE AND CRIMINAL BEHAVIOUR

Neurocriminologists view the brains of criminals as different due to environmental events or the presence of genes coded for structural pathologies (Carrier and Walby 2014). From the perspective of methodology, contemporary neurophysiological examinations are probably the criminological practices that bear the closest proximity to that of Lombroso's as regards studying abnormalities (Carrier and Walby (2014). Contemporary studies showed that malfunctions of the brain can partially account for criminality as exemplified by Lee *et al.* (2008) who executed research on functional magnetic resonance imaging (fMRI) and spousal abusers<sup>xviii</sup>.

Prior to the execution of the study by Lee *et al.* (2008) spousal abuse was almost purely viewed from a social standpoint. The network of regions of the brain associated with emotional regulation includes *inter alia* the prefrontal cortex, amygdala, hypothalamus, anterior cingulate cortex, insular cortex and ventral striatum (Lee *et al.* 2008). An inhibitory connection between the frontal and limbic regions causes negative emotion to be suppressed (Davidson *et al.* 2000; Bush *et al.* 2000). Consequently, Lee *et al.* (2008) hypothesized that if one or more of these regions or their interconnections have

abnormalities (functional or structural) the propensity for impulsive aggression is likely to increase due to negative emotion not being successfully suppressed.

In order to test their hypothesis, Lee *et al.* (2008) performed cognitive and emotional Stroop tasks executed in block on 10 male spousal abusers and 13 controls. The brain activities of the men were monitored during the cognitive and emotional Stroop tasks by a 3T Philips Achieva scanner. On the emotional Stroop task, the spousal abusers responded to negative stimuli relatively slower than they did to neutral stimuli. On the other hand, the cognitive Stroop task revealed no significant group-by-condition interaction. The fMRI data which was analysed using SPM2.7 revealed that when responding to aggressive words the spousal abusers when compared with controls showed less activation of the left middle frontal gyrus, right anterior cingulate gyrus, left calcarine fissure, left lingual gyrus, left fusiform and left middle and inferior temporal gyri. However, the right amygdala, right hippocampus, right parahippocampal gyrus, right insula, right calcarine fissure, right middle occipital gyrus, right fusiform, right superior and middle temporal gyri, right caudate nucleus, left middle cingulate gyrus and left precuneus of the spousal abusers showed activation when responding to aggressive words.

Bueso-Izquierdo *et al.* (2016) also executed neuroimaging testing on batterers but they deviated from Lee *et al.* (2008) by comparing the brain functioning of batterers with those of other criminals. Their study signified the first time that batterers were compared with other criminals from a neuroimaging perspective. They compared the brain functioning of 21 batterers with 20 other criminals by showing them intimate partner violence images (IPVI), general violence images (GVI) and neutral images (NI) while scanning their brains with fMRI technology. They found that batterers when compared with other criminals as regards IPVI and NI comparisons displayed higher activation in the anterior and posterior cingulate cortex and in the middle of the prefrontal cortex and a decreased activation in the superior prefrontal cortex.

Bueso-Izquierdo *et al.* (2016) utilized paired t-test comparison between IPVI and GVI for each group and the results revealed as regards IPVI, only the batterers showed engagement in the medial prefrontal cortex, the posterior cingulate and the left angular cortices. Thus, the results of this study could be vital to a better comprehension of intimate partner violence which is a global phenomenon (Bueso-Izquierdo *et al.* 2016). Notwithstanding, the generalization of the findings of this study is limited by the sample size being relatively small which may have impeded statistical significance as regards some comparisons; the complexity of categorizing crime; the representativeness of the IPV group; lack of objective evidence of the stimuli being equally attended by both groups; and the sample of batterers who were first episode batterers and did not have a high severity of violence (Bueso-Izquierdo *et al.* 2016).

Notwithstanding, the advancements in technology of CT scans, MRI and fMRI which resulted in more advanced methodologies than that of past biological positivism theorists, the premise that remained constant was that abnormality may account (at least partially) for criminal behaviour; thus, resonating Lombroso's contention of born criminals.

## **IMPLICATIONS OF BIOLOGICAL RESEARCH FOR CRIME PREVENTION**

Early influence of biological factors on crime prevention evidenced calls for eugenics, a notion that is no longer acceptable given the preeminence of human rights in crime prevention policies. Thus, new biological crime prevention strategies significantly diverge from those of the past since these policies recognize the association of both biological and social factors with criminal behaviour. The crime prevention policies that developed focused on preventing the development of criminal potential (development prevention), changing social conditions and institutions (community prevention),

reducing opportunities for criminal behaviour and also making such behaviour difficult (situational prevention) and the traditional aims of punishment (criminal justice prevention) (Rocque *et al.* 2012).

When biological factors that predispose an individual to criminal behaviour are identified measures such as early family/parent training programmes (Piquero *et al.* 2009; Piquero *et al.* 2016) and self- control improvement programmes (Piquero *et al.* 2010) can be beneficial. Early family/parent training programmes, for instance, The Incredible Years, Triple P Parenting and Nurse Family Partnerships aim to equip families and parents with training and skills critical to the better socialization of their children (Piquero *et al.* 2016). In 2009 Piquero *et al.* executed a meta-analysis of 55 high quality early family/parent programmes and found that those programmes proved propitious to deterring antisocial behaviour later in life. In 2016, they updated their study by analyzing 23 more studies in addition to the 55 previously studied and found that early family/parent training programmes are effective evidence- based programmes for the prevention of antisocial and delinquent behaviour.

Biosocial research may be beneficial to the rehabilitation of offenders since programmes can be personalized to suit the needs of the particular offenders (DeLisi and Piquero 2011). According to Vaske *et al.* (2011, p. 97) *“efforts to move toward a biosocial theory of offender rehabilitation may provide a powerful rationale for why treatment intervention must be a core goal of the correctional enterprise.”* Notwithstanding, rehabilitation is sometimes prohibitively expensive and may cause policy makers to opt for longer incarceration periods to prevent reoffending. Recently, a study executed by Umbach *et al.* (2015) on brain imaging and psychopaths<sup>xix</sup> (a relatively new development) found that psychopaths have amygdala impairments and prefrontal deficits which may help in explicating the development of fearlessness, loss of inhibition and lack of empathy in adolescents and that such knowledge left policy makers at crossroads. Policy makers will have to decide whether new biological interventions should be developed

to remedy brain pathologies and whether those findings provide a defense for psychopaths or justification for longer incarceration; however, they recommended dealing with psychopathy as treatable and the development of innovative treatment programmes based on neuroscience.

Given the findings of contemporary biosocial research, it is material to question whether the advancement in technology of DNA testing which identifies genes that make a person predisposed to criminal behaviour and/or brain imaging by CT scans, MRI and fMRI technology which shows brain pathologies linked to criminal behaviour will result in offenders with those abnormalities being incarcerated longer to prevent them from committing more crimes and being sterilized in the case of hereditary pathologies, or even facilitate women having abortions out of the fear of giving birth to children with criminal tendencies.<sup>xx</sup>

## CONCLUSION

While biological positivism has not lost its focus on scientific methods, there were vast developments in underlying core principles, moving from a paradigm focused on physical attributes and criminal behaviour to that of gene and environment interactions. In the field of genetics and criminal behaviour there were profound developments in terms of postulations and methodologies due to advancements in technology. There was a shift from the early postulation of genes being responsible for criminal behaviour to genes and the environment contributing to traits that are linked to criminal behaviour. Further, there were advancements in methodologies from twin studies to DNA testing as exemplified by the MAOA gene studies executed by Brunner *et al* (1993) and Caspi *et al.* (2002). This shift resulted in biological determinism being replaced with biological predisposition which was essentially a Lombrosian ptolemization.

Evolutionary psychology has moved from after the fact stories on adaptive behaviours and criminal behaviour to molecular genetics studies on gene and environment interactions as elucidated in the DAT1 gene studies executed by Beaver *et al.* (2008) and Guo *et al.* (2008). The field of neurocriminology reverberated Lombroso's postulation of the born criminal albeit its divergence in terms of focusing on brain abnormalities as opposed to physical abnormalities. Contemporary neurocriminologists have benefitted methodologically from advancements in technology, for instance, MRI, fMRI and CT scans which allowed them to image the brains of criminals in order to identify pathologies which may partially explain criminal behaviour as illuminated in the studies executed by Lee *et al.* (2008) and Bueso-Izquierdo *et al.* (2016).

Biosocial research has influenced contemporary crime prevention strategies which significantly differ from the strategies in the past that called for eugenics because such research is premised on the postulation that both biological and social factors are associated with criminal behaviour. Biosocial research has influenced the formulation of programmes that seek to prevent the development of criminal behaviour, for instance, early family/parent programmes. Early family/parent programmes have proven propitious in the reduction of antisocial behaviour in later years of children who were predisposed to criminal behaviour as elucidated in the studies executed by Piquero *et al.* (2009, 2016). Biosocial research can also be instrumental in personalizing treatment for offenders. However, cognizance must be given to the fact that rehabilitative programmes are sometimes prohibitively expensive and may result in policy makers opting for longer incarceration periods to prevent criminal behaviour. Biosocial research also has the potential to facilitate a reversion to eugenics since some individuals may find that having children that are predisposed to criminal behaviour is undesirable. Time will reveal what humanity will do with these new findings.

## ENDNOTES

- <sup>i</sup> Criminal behaviour refers to any act that contravenes criminal law.
- <sup>ii</sup> Theories that seek to explicate why and how modern cultures diverge from past cultures.
- <sup>iii</sup> Neuroticism refers to being perpetually in a negative emotional state.
- <sup>iv</sup> Act/s intended to cause harm to others.
- <sup>v</sup> Mental subnormality refers to mental capacity being developed incompletely or insufficiently. Mental retardation, now called intellectual disability is subsumed under mental subnormality.
- <sup>vi</sup> These studies are briefly summarized to highlight methodological flaws and findings. Casey *et al.* (1966) surveyed 942 mentally subnormal patients, 21 had the XYY condition and they found these males to be more violent and aggressive. Price and Whatmore (1967) surveyed 342 male patient's at a Scottish State maximum Security Hospital at Carstairs, 9 had the XYY condition and the condition was said to be associated with personality disorder and cognitive impairment. Welch *et al.* (1967) surveyed 21 inmates who were more than 187 cm tall (it is contended that males with XYY grow taller), one had the XYY condition and they found that it was impossible to associate the condition with aggression, deviancy or low intelligence. Hook and Kim (1970) surveyed 337 juvenile offenders less than 16 years old, 4 had the XYY condition and they found that those boys had committed more crimes than the XY boys who were taller than 184cm, 2 had the XYY condition. They found that 41.7% of these males had committed one or more crimes as opposed to 9.3% of XY males. Further XYY males had lower intelligence levels which the researchers believed accounted for the incidence of antisocial behaviour. Nanko (1979) surveyed 1371 juvenile delinquents in Yokohama Juvenile Detention and Classification Home, 5 had the XYY condition and they found that these males had an increased frequency in violent behaviour. Schröder *et al.* (1981) surveyed 1040 criminals in Finland undertaking mental examination between 1972 and 1979, 9 had the XYY condition. It was found that the delinquency of these men was associated with intelligent defect and abnormality of their central nervous systems. Fryns *et al.* (1995) surveyed 98,735 male patients at the Leuven Center for Human Genetics from 1968 to 1992, 50 had the XYY condition. They found that the XYY males

with mild to borderline mental retardation had higher behavioural abnormalities. Götz *et al.* (1999) studied 16 XYY male infants and 45 controls and found that XYY males had low intelligence and marginally increased antisocial behaviour. Briken *et al.* (2006) studied 13 sexual offenders, 3 were XYY males and they concluded that there was a high frequency of XYY males in sexual homicide. Gosavi *et al.* (2009) examined 94 murders who were convicted in Nagpur, 2 were XYY males. They concluded that while there was an association between XYY and criminal behaviour larger studies have to be done.

<sup>vii</sup> Deviancy refers to actions that do not conform to social norms.

<sup>viii</sup> Stocholm *et al.* (2012) studied 161 XYY male criminals aged 15 to 70 and found that there was a moderate increase in the overall risk of conviction for XYY men which was similar to controls (15365 males) when socioeconomic parameters were adjusted. They concluded that poor socioeconomic conditions associated with the chromosome abnormality may explain the increased risk of convictions partly or fully.

<sup>ix</sup> An antisocial display antisocial behaviour which refers to acts characterized by overt and covert hostility and intentional aggression.

<sup>x</sup> Low intelligence refers to inability or limited ability to learn, reason and solve problems.

<sup>xi</sup> Low empathy refers to little ability to feel and share the emotions of others.

<sup>xii</sup> Impulsiveness refers to the inability to control one's behaviour.

<sup>xiii</sup> Abnormal behaviour is behaviour that deviates from what society conforms as normal behaviour.

<sup>xiv</sup> The study by Caspi *et al.* (2002) was replicated by Ferguson *et al.* (2011) and the findings on the correlation between genes and environment and antisocial behaviours were in keeping with Caspi *et al.* (2002).

<sup>xv</sup> Genetic discrimination is defined by Gostin (1991 p. 10) as “*the denial of rights, privileges or opportunities on the basis of information obtained from genetically-based diagnostic and prognostic tests.*”

<sup>xvi</sup> Eugenics emerged in Europe and North America from the late 19<sup>th</sup> century to post World War 2 as a movement aimed at improving the genetic pool through the eradication of genes which were believed to be responsible for undesirable behaviours, such as, criminality, psychiatric disorders and mental retardation (Savulescu *et al.*



2006). Thus, individuals with these supposedly inferior genes were discouraged from reproducing to the extent that sterilization was sometimes forced upon them (Savulescu *et al.* 2006) as exemplified in the case of *Buck v. Bell* where the State of Virginia decided that it had the right to sterilize Carrie Buck, a judicial decision that was never overturned (Goldstein 2016).

<sup>xvii</sup> Committal of a crime that is usually minor in nature.

<sup>xviii</sup> Further, Schlitz *et al.* (2013) who studied MRI and computerized tomography (CT) brain scans from prisoners found that violent prisoners had high levels of brain pathology. Their sample comprised 162 violent offenders and 125 non-violent offenders not previously considered neuropsychiatrically ill and 52 non-offending controls. It was found that offenders displayed a significantly greater rate of morphological abnormality and violent offenders displayed a significantly greater rate than non-violent offenders and controls. There was a statistically detectable difference for the frontal/parietal cortex, medial temporal structures, third ventricle and the left but not the right lateral ventricle.

<sup>xix</sup> Psychopaths are individuals that exhibit *inter alia* antisocial behaviour, low empathy and egotistical behaviour.

<sup>xx</sup> Savulescu *et al.* (2006) argued that if indeed genetics is a predictor of criminal tendencies and avoidance of harm is of paramountcy a eugenic selection is acceptable when genetic selection is employed over genetic enhancement. They further argued that such a course of action can mitigate the moral problems associated with having children with a propensity of criminality (Savulescu *et al.* 2006). Notwithstanding, human germline gene editing or human germline modification has been considered off-limits for safety and social reasons and is legally prohibited in over 40 countries (Center for Genetics and Society, 2016). Further, the experiments conducted in China on editing the gene associated with the blood disease beta-thalassemia (published in 2015) and editing the gene associated with resistance to the HIV virus (published in 2016) using CRISPR (*Clustered Regularly Interspaced Short Palindromic Repeats*) in non-viable human embryos were unsuccessful to a great extent (Center for Genetics and Society, 2016). However, as the tools for editing genes become more refined, their accuracy in gene insertion and deletion is projected (Center for Genetics and Society 2016).

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## EQUITY THEORY AND DOPING IN CYCLING

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### ABSTRACT

*The demands of cycling have influenced some cyclists to resort to performance enhancement drugs (PEDs) in their attempt to be competitive. Though punitive measures have been adopted by the World Anti-Doping Agency (WADA), this phenomenon continues to affect the sport. This paper seeks to analyse the doping phenomenon in relation to equity theory posited by Stacy Adams (1965) to understand the cognitive aspect of motivation and its impact of perceived inequity and doping behavior among cyclists. The desire to be competitive at the elite level and the feeling of negative inequity would have contributed to the continuous use of PEDs by cyclists, as they try to level the tilted field. The commercialization of sports, as well as, the culture in cycling has also contributed to this type of behavior.*

**Key Words:** doping, equity, motivation, culture of cycling

### INTRODUCTION

The physical demands of professional racing as well as the expectation of sponsors, coaches and spectators have forced many cyclists to seek out ways that can enhance their performance. Before the change in attitude towards doping by cycling governing body Union Cycliste Internationale (UCI) in 1966 (Brewer 2002), and International Olympic committee (IOC) in 1967 (Moller 2010), doping was openly administered by cyclists (Brewer 2002). Moller



(2010, 30) contends that, “it was cyclists who pioneered the use of doping,” so as to increase their endurance during the debilitating six-day cycle races. The practice of doping by cyclists provided a coping mechanism to deal with external pressures, which later became an aspect of internal integration in professional cycling (Edwards 2013b). This practice was seen as necessary for their survival in professional cycling.

The use of performance-enhancing drugs (PEDs) in cycling has affected the image of the sport as a result of doping scandals involving some of the world’s best athletes – seven times Tour de France winner Lance Armstrong (1999 – 2005), three times Tour de France winner Alberto Contador (2007, 2009, 2010), 2006 Tour de France winner Floyd Landis, and 2004 Olympic Time Trial gold medalist Tyler Hamilton. However, though World Anti-Doping Agency (WADA) and cycling governing body (UCI) have used punitive measures to reduce this phenomenon, concern about the prevalence of doping is nearly as high as when the World Anti-Doping Agency (WADA) was formulated in November 1999 (O’Connor 2012). “Professional cycling team Astana, whose star rider is Tour de France champion Vincenzo Nibali, was rocked by yet another doping scandal with the news that a fifth rider had failed a drug test” (Yahoo News 2014).

The prevalence of doping, even though stricter penalties have been enforced over the years, has been attributed to current developments in medical science and the commercialization of sports (Brewer 2002). These developments have also forced the anti-doping agencies to expend greater financial and other resources in the fight against the use of PEDs by athletes. The need for other approaches in the fight against the use of PEDs by athletes is therefore necessary if there is to be an eradication of this type of behaviour. Stewart and Smith (2008, 281) posited that “a better understanding of motivation will lead to alternatives to legal threats and punishments” in the fight against drug use in sports. Earlier studies devoted attention to the motives that have influenced cyclists to use prohibited drugs (Bilard 2010 and Edwards 2013a). Though an understanding of the motives



is important, the cognitive aspect of motivation and its implication on the use of drugs are also pertinent to the study of PEDs by athletes in sports.

## **Framework**

This paper seeks to discuss equity theory, which was posited by Stacy Adams (1965) and applied to understand the impact of perceived inequity and doping behaviour among cyclists. The culture of professional cycling will be addressed, which will be followed by Equity theory of motivation, and finally the motivational framework will be applied to the behaviour of cyclists to reduce inequity through doping. A literature review on the main variables of the study, which include doping in cycling, motivation, equity theory, and WADA was done by the writer.

## **CULTURE OF PROFESSIONAL CYCLING**

The cycling culture provides a means of survival for members in the professional cycling fraternity whereby unwritten rules developed over years are rigidly enforced by the members. Moller (2010, 72) posited that “professional cycling has an elaborate moral code. There are strict, if unwritten, rules for what one must, shall or shall not do”. Stovitz and Satin (2004, 216) postulated the importance of the unwritten rules by positing that, “the ethos (unwritten rules) of the game is more relevant than the written rules as a context for interpreting the moral quality of individual behaviours”. These rules have facilitated the cyclists in their internal integration and external adaptation, resulting in social solidarity and confidentiality or a strong in-group mentality (Edwards 2013a). The culture of the fraternity has “an essential difference between the morality that prevails inside of cycling and the morality that reigns outside its special domain” (Moller 2010, 88-89). The activities and decisions made by cyclists before, during and after events are seldom known or discussed with outsiders. Among the actions that are part of the

cultural factors is the non-disclosure of what had taken place within teams and races. This practice was referred to by (Moller 2010) as ‘the law of silence’. The disclosure by any member of what had taken place, even after their competitive days are over, results in them being sanctioned even by close friends, as was the case with Paul Kimmage, a former professional rider from Ireland (Moller 2010). Kimmage (as cited in Moller 2010) provided a “picture of the culture of cycling” (Moller 2010, 89). Kimmage was perceived as a traitor, and acknowledged that not even his close friends from his competitive days spoke to him.

In their attempt to cope with the demands of sponsors, teams and other stakeholders, cyclists did whatever was needed to provide the desired results, which included buying the loyalty of other cyclists. The hierarchical structure of teams was important in facilitating the tactical work required to win races, since “a strong leader cannot win races with any consistency without a strong team supporting him” (Brewer 2002, 281). However, during the early days of professional cycling, support riders’ earnings were inadequate to satisfy their cycling and social needs throughout the year (Brewer 2002). Due to the low pay earned by support riders, as well as their desire to remain in the sport, many depended on arrangements before and during races for their survival (Moller 2010). The practice of fixing races was traced as far back as the First World War (ibid). However, race fixing was resented during that period by independent riders in the Tour de France who complained about teams partaking in such activities (ibid). “The buying and selling of races, although not nearly as routine outside the criterium circuit, spilled over into other races, a fact acknowledged by rider Tom Simpson” (Brewer 2002, 283). The income from such arrangements whether within teams or with other cyclists from rival teams was used to subsidise the low salary of the support cyclists. Support riders were also allowed to win less important races by their team leaders, thus rewarding them for their sacrifice throughout the season (Brewer 2002). Though this practice was prevalent in the early days of professional cycling, some races are still “routinely ‘fixed’ in advance by the riders, guaranteeing a popular rider or recent Tour de France standout would win. In return,

prize money would be split amongst participants, ensuring that all riders benefited from playing their ‘part’ in the fix” (Brewer 2002, 283). This practice has remained a part of the culture in professional cycling.

The physical demand of professional racing and the expectation of sponsors, coaches and spectators have forced many cyclists to seek out ways that can enhance their performance. To overcome their perceived or real deficiency, or perform at the desired level, another practice – doping, developed over the years, became part of their mechanism for external adaptation. Also, as was earlier stated, the practice of doping provided a coping mechanism to deal with external pressures. This practice later became an aspect of internal integration in professional cycling. The practice was seen as necessary for their survival in professional cycling, and was intended to provide cyclists with additional tools needed to satisfy the desires of other stakeholders (Kimmage 1998 as cited in Moller 2010). According to a star rider Rik van Steenbergen (as cited in Brewer 2002) “the top riders were obliged to be fresh each time and they couldn’t do that without stimulants. Nobody could or ever will be able to do that because there are no such things as superman. Doping is necessary in cycling” (Brewer 2002, 284).

The use of illegal drugs had also become institutionalized over the years, as this type of behaviour was not just restricted to individuals, as “team administrators, support staff, and teammates were all involved in the organisation and expansion of doping” (Brewer 2002, 285). The practice of using drugs to enhance competitiveness had become a necessity rather than a mere desire for many of the cyclists. The “requirement to ‘keep up with the Joneses’ has been described by psychologists as a ‘prisoner’s dilemma’, whereby the only real option for an individual within the game is to seek the illegal advantage, because each participant must assume that his opponents will do the same” (Stovitz and Satin 2004, 218). This situation has been further compounded by the non-disclosure of what takes place within teams by their members. The dilemma faced by professional cyclists “is that each individual is in the same position, and therefore

must act accordingly by assuming that all others will attempt to gain the illegal advantage” (Stovitz and Satin 2004, 218). Cyclists’ belief that others are using performance enhancing techniques have cause many to accept this as a norm rather than an exception in the sport. The culture of silence has also contributed to this practice over the years. The situations that many are faced with have contributed to this type of behaviour, which has become widely accepted in the cycling fraternity, with some new members seeing their introduction to drugs “more like a ritual of initiation” (Moller 2010, 88). “The social organization of doping was governed by structures of custom in the classical period, initiated and administered by individual racers mainly with the assistance of coaches and/or other racers” (Brewer 2002, 285).

## EQUITY THEORY OF MOTIVATION

### *Motivation*

Individuals are motivated to do things as a result of a need, which can be as a result of a “physiological or psychological imbalance” (Luthans 1995, 141). The intensity of the drive is determined by the incentive to be achieved, which will ultimately alleviate the need. Motivation is seen as the force that directs an individual’s behaviour, as well as the persistence and intensity of their actions (Steers *et al.* 2004), so as to satisfy specific needs. The motive or drive of an individual contributes to both acceptable and unacceptable behaviour, since “motives often affects a person’s perception, cognition, emotion, and behaviour” (Reiss 2004 179). The environment in which the behaviour takes place is also important, since it can influence the type of motivation at a particular time or period.

While content theories of motivation provide a basis to understand human behaviour as it relates to needs, they are not the only theories that contribute to the understanding of drive, intensity and

persistence of human behaviour. Thus, since the reward or incentive may be desirable to the individual, the drive to alleviate the need may not be as intense if there is a belief that others are receiving more benefits for similar efforts/inputs. Therefore, what goes on in the individual's mind is just as important as what is desired by the individual, and the environment in which the action is to take place. The feeling of equity or inequity can affect an individual's attitude and subsequently their behaviour. "Equity theory offers a well-developed theoretical framework to study the (lack of) balance between inputs and outcomes" (Van Yperen 1997, 318). "Adams's version of equity has been the most widely researched and accepted version," and will be used as a reference during the remainder of this paper (Scholl 1981, 590).

### ***Equity Theory***

"The central assumption of equity theory is that justice is a function of the proportionality of outcomes to inputs of the person and comparison targets" (Van Yperen 1997, 318). However, the conclusion that there is inequity does not have to be real, it is the individual's perception that matters, which ultimately affects their behaviour. "The theory suggests that when individuals find themselves in an inequitable situation, they have several options to cope with this lack of reciprocity" (Van Yperen 1997, 318). The actions that can be taken by the individual include "restoration of actual or psychological equity, altering the comparison target, and leaving 'the field' (i.e. dropping out)" (Van Yperen 1997, 318). Inequity can be either positive or negative – mismatches which favour the individual or the comparison with others, respectively" (Disley *et al.* 2009, 57). "Inequity creates tension or distress in the individual (i.e., anger when the person feels under-benefited, guilty when they feel over-benefited). This tension, or distress, motivates the person to reduce or eliminate the inequity. The magnitude of the perceived inequity, the tension experienced, and the strength of motivation to reduce inequity are linearly related" (Disley *et al.* 2009, 57).

The ‘process’ commences with the individual analyzing the situation or circumstances before them in relation to the activity. “To determine the fairness of a situation, the individual compares their perceived ratio of inputs to rewards, to the corresponding ratio of a ‘comparison other’ (often called a referent other)” (Disley *et al.* 2009, 57). In the remainder of the paper the term “comparative other” will be used *in lieu* of comparative target, since both imply comparing ones situation with another individual seen as similar to some extent. “Inputs and rewards are defined, respectively, as what an individual perceives they contribute to and what they perceive they receive from a relationship” (Disley *et al.* 2009, 57). The belief that the ratio of inputs to rewards or outcomes is dissimilar will influence the individual to attempt to restore or “maintain an equitable balance between inputs and outcomes by perceptual change, behavioral change, or leaving” (Scholl 1981, 591).

The behaviour that is likely to be pursued as a result of the felt negative inequity will vary depending on the perceived power of the individual in the situation at that given time. The extent of the need to be fulfilled will also contribute to the action(s) the individual is likely to take to restore equity. The greater the need, the less likely the individual will leave the field. Such an individual is more likely to change the comparative other or try to restore actual equity. The option of leaving the field will occur if the need is not great, or the need can be fulfilled in another way. The investment made by the individual will also influence the individual’s commitment to the activity, since greater investment will result in greater commitment, which will also eliminate the option to leave the field. The option of changing the comparative other is likely to occur if the individual is unable to change their actual input (decrease) or that of the comparative other (increase), or the reward of either parties. However, if the reward sought by the individual is highly desirable, changing the comparative other will not be an option to reduce the inequity, since there will be no change in the individual’s reward. Where the reward is highly desirable, the individual will have to take alternative action(s) to restore equity. Decreasing the input will only be an option if such an action would not affect future rewards (Van

Yperen 1997). As such, where the reward is highly desirable, unless there is a guarantee that a reduction of the input will not result in a reduction of the existing reward, such action will not be taken. The action(s) that are most likely to be taken are those that can increase the reward of the individual if they have the power to increase it either directly or indirectly.

### **EQUITY THEORY AND DOPING BY CYCLISTS**

Cycling is the job of a professional cyclist whose basic and social needs have to be fulfilled by his or her cycling activities. Therefore, at this level there will be greater emphasis on extrinsic rewards rather than intrinsic rewards. The orientation of the professional cyclist would have changed over time moving from task orientation - interested in acquiring skills or mastering tasks, to outcome orientation - winning or beating an opponent. “At the elite and professional levels, the desire to beat competitors controls the actions of the individuals, and whatever is needed will be done to realise the desired outcome, as the individual becomes less task-oriented and more outcome-oriented” (Edwards 2013b, 26). As such, in elite sports athletes and their support groups would have accumulated considerable “investment of time and energy in pursuit of athletic excellence (i.e., financial demands or costs, time demands or costs, and personal costs)” (Van Yperen 1997, 318). To compensate for their investments, the rewards for successful cyclists are often great (fame, financial rewards), due to the commercialization of sports in recent years (Van Yperen 1997). Stewart and Smith (2008, 283) also postulated that “the escalation of commercial interests in sport has added another pressure on athletes to perform to maintain corporate sponsorships and to acquire as much wealth as possible during their brief and risky career life-span”.

Therefore, competitive cyclists who feel under-benefited, “because they invest more time and energy in their sport career than their peers”, but feel disproportionately rewarded (Van Yperen 1997, 323),

will respond to the situation in any way they perceive as appropriate in their attempt to restore equity. Elite and professional cyclists will not consider leaving the field as a viable option, even when there is felt negative inequity, because of their investment and their desire to fulfill their social and other needs. This was the case with Kimmage who “did not simply choose to leave the sport once he understood what was going on” in professional cycling (Moller 2010, 87). Other responses to felt negative inequity hypothesized by Adams was for the individual to change his or her input or output (Bretz and Thomas 1991). To cope with the lack of reciprocity as it relates to reward for their investment the elite and professional cyclists “will not do well to cut down on these investments because an undesired side effect might be a decrease in their performance level” (Van Yperen 1997, 323). A decrease in performance will ultimately affect the rewards such as fame, medals, and endorsements sought by the cyclist, and as such not a likely response to restore equity. An increase in the input by the comparative other can lead to an improvement in performance, and hence the reward for the comparative other, which will not reduce the cyclist’s felt negative inequity. While changing the input may not reduce the felt negative inequity, a change in the comparative other can reduce the felt negative inequity. However, this will not change the success or performance of the elite or professional cyclist, whose efforts/inputs are targeted towards achieving success, which will ultimately increase rewards. “Moreover, restoring equity by increasing one’s rewards is not always possible” because rewards are based on performance or output (Van Yperen 1997, 323).

“Sport is by its very nature competitive, and athletes are continually seeking ways of securing a competitive edge over rivals” (Stewart and Smith 2008, 291). The culture of the sport will therefore have a significant influence on the action that is likely to be taken by the cyclist who feels disproportionately rewarded. Elite cyclists are pressured to ‘keep up with the Joneses’ because of the practice of doping in cycling. If a cyclist is of the opinion that the comparative others are using illegitimate means to improve performance, then in an attempt to restore equity he or she must do likewise if equity is to



be restored. Paul Kimmage (1998 cited in Moller 2010, 79) posited that “he was just leveling the playing field so he could compete with others”. The viable option that most cyclists are likely to consider in such a situation is to ‘keep up with the Joneses’ as was earlier stated thus a vicious cycle of perpetual doping emerges. The culture of cycling would have a significant influence on a cyclist resorting to PEDs, since it is the general belief that others are doing the same thing. By resorting to PEDs, there should be an improvement in the cyclist’s performance, which will be similar to the comparative others, thereby increasing the likely reward of the cyclist and restoring equity. By using PEDs cyclists are able to reduce their felt negative inequity after recognizing improvements in their performance. Therefore, doping is often considered as the only viable option by most cyclists. This is expected to result in greater extrinsic rewards such as fame, medals, and endorsements, which is what an elite cyclist would have set out to accomplish.

## CONCLUSION

Commercialization has dominated the minds of elite athletes resulting in a win at all cost attitude in sports. “This hyper-commercialized sporting world and its associated ideologies of competition, global expansion, and market domination drive a sport culture that values doing whatever it takes to gain a competitive edge” (Stewart and Smith 2008, 284). The feeling of inequity has contributed to the practice of doping in cycling, since individuals are of the opinion that without doping their chance of winning on a tilted field is impossible. The culture of secrecy in cycling has also contributed significantly to the practice of doping, as it provides an enabling environment for such behaviour. Most elite and professional cyclists believe that the only way they can succeed is to do what the others are expected to do, which will guarantee lucrative rewards if they are successful. The use of PEDs is seen by many cyclists as leveling the playing field. It should be noted that fair play can only be fair if all participants are playing under the same conditions, which will never happen, since man was not born with

identical talents, and do not use identical methods to prepare for events.

Though athletes are aware of the potential damage to their health as a result of PEDs, the behaviour persists in the elite and professional levels of sports. The desire to succeed has been a powerful force driving the actions of cyclists, which over time becomes the norm, and in some instances the only purpose for existence. Stewart and Smith (2008, 286) postulated “that participation in sport may itself be a kind of addiction, fuelled by the gratification of improving performance and increasing public recognition”. The fame associated with outstanding performance has made it more compelling for some individuals to do whatever is needed to succeed at the elite and professional levels. The thought of their names being associated with outstanding performance long after their formative years would have provided enough reason for some cyclists to use PEDs. This desire has also led to the development of new means to avoid detection by the authorities. The desire to win and not be detected for PEDs has led to creativity by individuals and groups as they try to accomplish as much extrinsic rewards as they can during their formative years.

“Sport is played for higher, sometimes much higher stakes, whether these be economic, political-national, personal or a combination of all three” (Stewart and Smith 2008, 282). This added pressure on athletes has also contributed to the greater desire for success, and the win at all cost mentality permeating sports. Cyclists who have high investments in sports and competitive instincts are less likely to take alternative actions (doping) in such situations, as competition is undertaken to determine superiority. However, a change in the behaviour of cyclists as it relates to doping will only occur if there is a change in the environment in which they operate. Unless there is a change in the environment - culture, individuals not using PEDs will have feelings of negative inequity.

This paper has established that there is a link between the perception of inequity by elite and professional cyclists and doping in cycling.

Earlier papers addressed the issues of intrinsic and extrinsic motivations and doping in cycling, as well as needs of individuals influencing the practice of doping in cycling. However, future studies can investigate which cyclists are more likely to use PEDs from a holistic motivation perspective. Such an understanding can assist in early identification, so that support mechanisms can be provided for those individuals, which can ultimately reduce the propensity to use drugs in cycling. Though a punitive approach to eradicate such behaviour has been embraced by WADA, the practice of doping continues to permeate the sport of cycling.

WADA's punitive approach which involves reacting to the unacceptable behaviour can be supplemented with another approach which can be used to avoid the behaviour from occurring in the first place. While it may be impossible to eliminate the use of PEDs in cycling, all attempts should be made to reduce its use as much as possible. Therefore, another issue that can also be considered for future studies is masculinity. Stewart and Smith (2008, 288) posited that "for some athletes, the combination of illegality, risk of exclusion, and potential for physical damage can be part of the attraction of taking drugs". They also indicated that rather than reducing the practice "a punitive anti-doping policy may unintentionally increase the appeal of drug use for some hyper-masculine athletes because of its association with deviant and high-risk behavior". The fight against the use of drugs requires a better understanding of the various issues that have contributed to the practice. A significant reduction of the prevalence of doping in cycling can only occur if appropriate actions are taken.

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## CHALLENGES AND OPPORTUNITIES OF SPS AND TBT MEASURES FOR INCREASING FOOD AND AGRICULTURAL EXPORTS FROM GUYANA

Dianna DaSilva-Glasgow  
Roger Hosein

### ABSTRACT

*This paper seeks to decipher the challenges and opportunities sanitary and phytosanitary measures and technical barriers to trade may present to the competitive export of food and agricultural commodities from Guyana. This is achieved through the use of scholarly articles and published statistics including border detention data. By and large, the theoretical impact of such measures is ambiguous as they have the potential to both impede and enhance trade. However, their precise impact depends on firms' response. A strategic approach will ensure that costs are minimized and opportunities maximized but necessitates public- private coordination to build capacity for proactivity.*

**Key Words:** Agriculture, Sanitary and phytosanitary, Technical barriers to trade

### INTRODUCTION

A former Minister of Agriculture of the Government of Guyana<sup>i</sup> noted in 2014 that Guyana is affected by unfair trading practices in Europe, North America and CARICOM. As a result, export markets have decreased. He was making specific reference to the multiple Non-

tariff barriers (NTBs) that exporters face. His remark came three years after another government minister had in 2011 chided CARICOM states for the existence of NTBs and called for their removal at a high level food consultation in Trinidad and Tobago, hosted by the Food and Agriculture Organization (FAO) and the CARICOM Secretariat<sup>ii</sup>. The minister in particular noted that SPS regulations are burdensome and prohibitive of agricultural trade and therefore limit intra-regional trade in food. In the words of the Minister, “it is a monumental task to export food into [countries] right from here in the region (CARICOM).”<sup>iii</sup>

The expressed concerns of the Ministers reflect a wider phenomenon of growth in NTBs. NTBs are essentially all forms of barriers to trade apart from tariffs, inclusive of commercial trade policies (such as quotas) and behind the border measures (such as production subsidies). Such measures have increased in absolute and relative terms with the lowering of tariffs. Noteworthy are sanitary and phytosanitary measures (SPS) and technical barriers to trade (TBT) which feature prominently among the gamut of measures considered to be barriers to trade. Regarded as ‘new protectionism’ such measures are different from tariffs because of the ambiguity of their impact. Given the goals that they seek to achieve for importing countries, that is, protection of plant, animal and human life and resolving information asymmetry, they offer opportunities for trade by increasing consumer confidence in imported products. However, they may have a negative impact on market entry for exporting countries, either deliberately, through discrimination in their design and application; or inadvertently through the compliance costs that must be borne (Lee, Gereffi and Beauvais 2012; Liu and Yue 2013).

This paper seeks to decipher the collective challenges and opportunities such measures may present to exporters from developing countries with special reference to the competitive export of food and agricultural commodities from Guyana, particularly non-traditional products. The focus on non-traditional products stems from the fact that Guyana needs and has been on a perennial pursuit of agricultural production and export diversification (Ministry of

Agriculture 2013). Diversification initiatives have tended to focus on high-value products which are lucrative products in light of the fact that they carry a higher monetary value in international markets because of higher demand (IPRI n.d.). However, the nature of global marketing for such products has shifted to emphasize specialized channels (commodity chains) focusing on quality-based competition (*ibid* n.d.). Therefore understanding the impact of standards is important to understanding the challenges and opportunities that Guyanese exporters face in increasing and sustaining exports of such products on the global market.

The paper uses mainly secondary data obtained mainly through journal articles, policy studies and published statistics, such as United States Border Detention data and trade statistics from the Statistics Department of the CARICOM Secretariat and the United Nations Commodity Trade Statistics Database (UNCOMTRADE) to understand how SPS and TBT measures impact trade.

An important conclusion of the study is that the impact of SPS and TBT measures on trade depends on how firms plan for and respond to measures which in turn depends on their internal capacity, the size of the export market, *ceteris paribus*. Firms that choose to deal strategically with SPS and TBT measures are better poised to minimize the challenges and capitalize on the opportunities associated with compliance. However, this requires coordination between firms and policy makers to build capacity for proactivity.

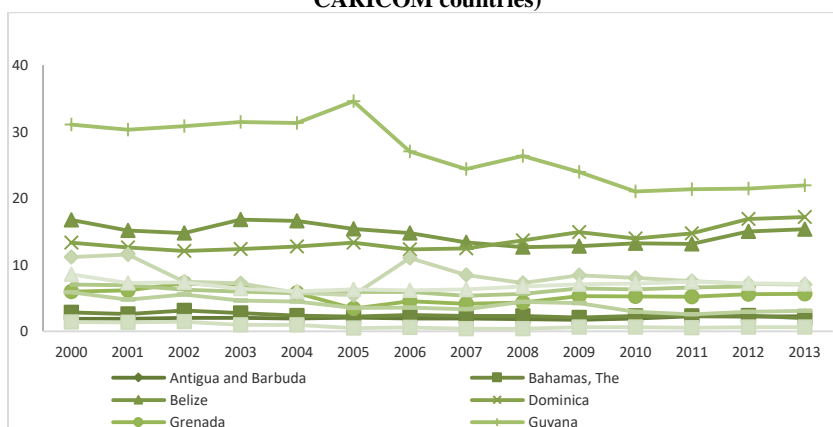
The rest of the paper is structured as follows. Section two provides a brief overview of Guyana's trade in food and agricultural commodities; section 3 provides a brief definition of what are SPS and TBT measures and how they can be situated within the framework of non-tariff measures and non-tariff barriers to trade (NTMs/NTBs). Section 4 then outlines the challenges that technical measures may present to exporters as well as the opportunities they offer for increasing export competitiveness. The paper closes with conclusion and policy recommendations.



## OVERVIEW OF GUYANA'S TRADE IN FOOD AND AGRICULTURAL COMMODITIES

Guyana is naturally endowed with an abundance of agricultural resources including; arable land and fresh water resources. Approximately 8.5%<sup>iv</sup> of the country's total land area is agricultural land. Understandably, given the country's resource endowments, the agriculture sector is an important sector for socio-economic development. Approximately 20% of Guyana's labor force is employed within the agriculture sector<sup>v</sup>, a decline from about 34% in 1997. As at 2002, approximately 27% of persons employed within the sector were males while 7% were females.<sup>vi</sup> Though the contribution of the agriculture sector to GDP has declined over the years (from about 30% in 2000 to around 25% in 2013) it remains of relatively greater national importance to Guyana compared to the country's CARICOM counterparts (see figure 1 below).

**Figure 1: Agriculture, value added % of GDP: 2000-2013 (selected CARICOM countries)**

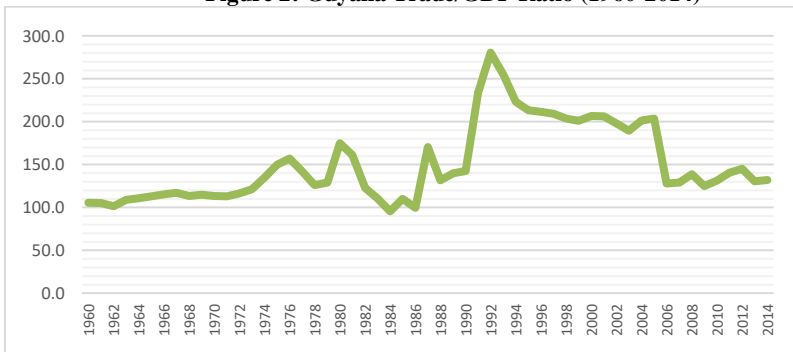


Source: World Bank Development Indicators

As a small economy, Guyana is highly open and very reliant on international trade with a trade to GDP ratio that exceeds 100 (see **figure 2**). Guyana transitioned through structural adjustment (during the early 90s) from a socialist-led economic system during the 70s-80s to an open market economy (1989 onwards) (Williams 2002). This was accomplished by increased trade liberalization and relaxation of restrictions to the movement of capital. Consequently,

Guyana’s dependence on trade increased even further. **Figure 2** below maps the trade to GDP ratio for Guyana from 1960 to 2014. Several things are noteworthy from the figure. Firstly, though subject to fluctuations, Guyana’s trade to GDP ratio has increased from 1960 to 2014. Secondly, trade to GDP falls during the 1980s reflecting declining imports and exports as a result of a dip in the country’s economic performance. Thirdly, the trade to GDP ratio spikes in 1992 at 280.4 reflecting the impact of the implementation of structural adjustment polices. Fourthly, the trade to GDP ratio levels off before falling again in 2006, close to the global financial and economic crisis of 2008.

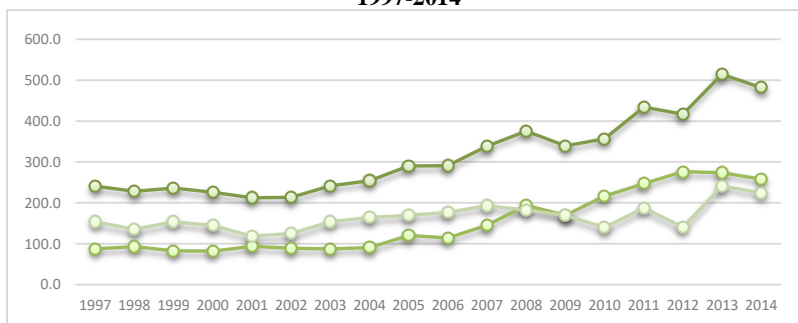
**Figure 2: Guyana Trade/GDP Ratio (1960-2014)**



Source: Authors based on UNCOMTRADE data

The Heckscher-Ohlin endowment theory posits that a country will export the commodity that uses more intensively, its abundant and cheap factors. Guyana’s pattern of trade conforms to this theorem. In 2014, food and agriculture exports (defined as chapters 01-24 of the HS Classification system) accounted for 41% of the export earnings of the country (US\$1174.05 Mn). **Figure 3** shows exports and imports and balance of trade for food and agriculture commodities. Guyana consistently maintains a positive balance of trade for food and agriculture commodities. However, both exports and imports have risen steadily. From around 2005 onwards, the figure illustrates that the gap between imports and exports widened marginally. This corresponds to the signing of the Petrocaribe agreement and the substantial expansion in the production and export of rice to Venezuela.

**Figure 3: Trade in Food and Agricultural Commodities (US\$Mn) (HS 1-24): 1997-2014**



Source: Authors based on UNCOMTRADE data

While Guyana maintains a positive trade balance for food and agricultural commodities, the country has a narrow export structure consequent to a narrow production structure, an indelible print left by colonialism. Guyana's main export commodities are rice, sugar and fish. **Figures 4 – 8** identify the top ten food and agricultural export commodities for five periods; 1997, 2000, 2005, 2010 and 2014. From 1997 to 2005 sugar was the leading export commodity. This is linked to the 1975 ACP/EU Sugar Protocol that saw Guyanese and other ACP producers benefiting from preferential prices for sugar to the EU market. The agreement accounted for 70% of total export sales of sugar from Guyana.<sup>vii</sup>

**Figure 7** shows that from 2010 rice (cereal) became the leading food and agricultural commodity exported from Guyana. In 2014 the country earned US\$247.6 Mn from exports of rice. The decline of sugar is linked to both internal and external factors. Internally, the decline is linked to managerial, technical and other challenges that have resulted in an ailing industry, including a modernization project that has not lived up to its expectations<sup>viii</sup>. Externally, the decline could be linked to the erosion of preferences consequent to the replacement of the Cotonou agreement, which offered asymmetrical preferences to ACP countries, with a WTO-consistent agreement based on the principle of reciprocity. The growth in exports of rice however, is linked to the secured market in Venezuela under the Petrocaribe agreement. Exports of fish (and fisheries products) also

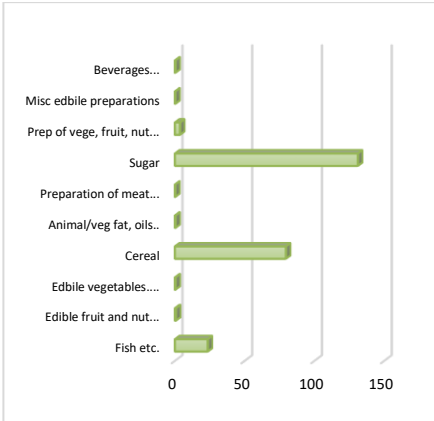
shows growth over the period examined. Growth may be linked to diversification initiatives such as the Guyana Agricultural Sector Diversification Programme that saw UKaid injecting 1.3 mn pounds into the local economy to bolster aquaculture exports by Small to Medium sized Enterprises.<sup>ix</sup>

The National Development Strategy<sup>x</sup>, which initially sketched a ten-year path (2000-2010) to propelling economic development in Guyana articulated export diversification as a critical strategy to realize improved economic performance in Guyana. A number of other strategies and policy initiatives have subsequently also focused on realizing diversification in the agriculture sector. For instance, the recently concluded 6-year Rural Enterprise and Agricultural Development Project (READ)<sup>xi</sup> sponsored by IFAD and the Agricultural Export Diversification Program for which Guyana secured US\$6.8 Mn from IFAB and US\$21.9 from the IDB for implementation. In addition, the country has pursued strategies that have sought to prioritize products of focus including; a 5Cs (Citrus, Cassava, Coconut, Cocoa and Cattle) and 4Ps (pepper, plantain, pineapple and pumpkin) initiative (Ministry of Agriculture 2013)

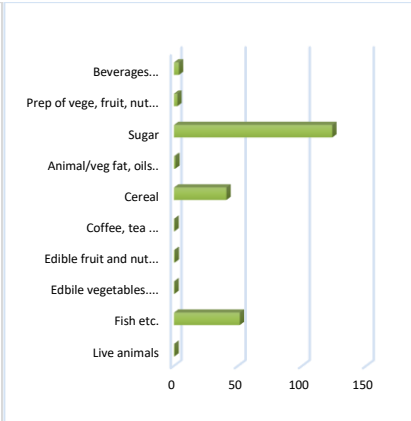
The growth in exports of non-traditional products such as edible fruits, fats and oils suggests that these initiatives have met with some degree of success. However, significant progress has yet to be attained given that exports of non-traditional products is still minuscule compared with traditional export products.

In recent times, the country has articulated the National Agriculture Strategy (2013-2020) which reiterates the need for diversification and identifies priority crops for focus including; vegetables, tubers, fruits, coconuts, and the introduction of new crops to Guyana such as; carrots, spices, corn and soya (Ministry of Agriculture 2013). These crops can be classified as high-value products which the CGIAR (n.d.) defines as “non-staple agricultural crops” that have a higher net return per hectare of land.<sup>xii</sup>

**Figure 5: Top 10 Food and Agriculture Export Commodities (US\$Mn): 1997**



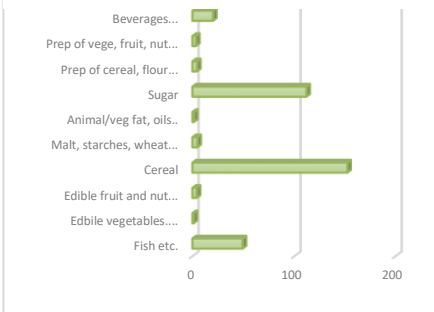
**Figure 4: Top 10 Food and Agriculture Export Commodities (US\$Mn): 2000**



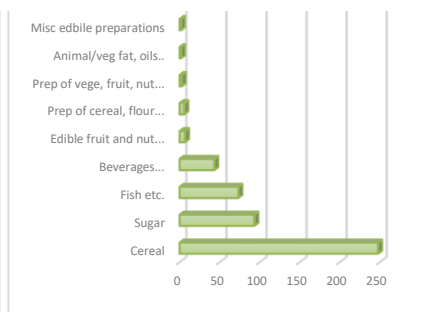
**Figure 6: Top 10 Food and Agriculture Export Commodities (US\$Mn): 2005**



**Figure 7: Top 10 Food and Agriculture Export Commodities (US\$Mn): 2010**



**Figure 8: Top 10 Food and Agriculture Export Commodities (US\$Mn): 2014**



Source: Authors based on UNCOMTRADE data

Similar to its export base, Guyana has a narrow range of export markets. Guyana's traditional markets are in North America including; Canada and the US; Europe, particularly the UK; and the Caribbean. Trade agreements tell a significant part of the story with respect to trade relations with these countries. Guyana is a party to the CARICOM Single Market and Economy and benefits from the common external tariff. Guyana was also a beneficiary of the Lome Conventions (1975, 1981, 1985, 1989) and the Cotonou agreement (2000) which evolved into the EC-CARIFORUM Economic Partnership Agreement (2008); as well as the 1981 Caribbean Basin Initiative agreement with the USA.

**Table 1** shows that the top 15 export markets accounted for approximately 91% of export earnings in 2014. On account of rice, Venezuela has become one of the leading export markets. In 2014, it accounted for 22.3% of total food and agricultural exports.

The US market is an important market for exports of fish. In 2000 78% of exports of fish went to the US (US\$39.8 Mn); 49% in 2014 (US\$36.0 Mn) and; 54% in 2010 (US\$26.6 Mn). The Jamaican market is significant for both exports of fish and rice. The quantity of fish going to this market has increased over the years from US\$6.6 Mn in 2000 to US\$12.1 Mn in 2014. Rice exports have similarly increased from US\$11.2 Mn in 2000 to US\$25.2 Mn in 2014. In spite of the erosion of preferences and the decline in export volumes, the UK continues to be the leading market for sugar. Canada is an important market for exports of beverages, absorbing US\$8.8 Mn in 2014.

For non-traditional products such as horticultural exports (06), vegetables (07), fruits (08), coconuts (oil seed) (12) and, animal and vegetable oils (15) exports are similarly concentrated. The USA, UK and Barbados are the leading export markets for horticultural products, which are very minuscule to begin with, with only US\$48,385 being exported in 2014. 73% of horticultural exports in 2014 went to the UK, whereas in 2010 95.3% of exports went to the USA.

For exports of fruits and vegetables the leading markets are Canada, Barbados and the USA. In 2014 36% of exports of vegetables and 6% of exports of fruits went to Canada; while 43% of exports of vegetables and 9% of exports of fruits went to Barbados; and 9% of exports of both fruits and vegetables went to the USA. The Dominican Republic is also an important market for exports of fruits. In 2014 it accounted for 72% of exports of fruits an increase of 22 percentage points from exports in 2010.

Trinidad is by far the largest export market for oil seeds such as coconuts accounting for 100% of exports in 2010 and 88% in 2014.

For animal and vegetable oils, the leading markets are Trinidad, which accounted for 34.4% in 2014, followed by Dominica with 36.9% and Antigua and Barbuda with 6.3%.

**Table 1: Top 15 export markets for food and agriculture products: 2014**

Country Code	Country	Rank	Export (US\$ Mn)	% of total
862	Venezuela	1	107.4	22.27
826	United Kingdom	2	88.1	18.27
842	USA	3	47.3	9.81
388	Jamaica	4	41.4	8.59
591	Panama	5	28.6	5.94
780	Trinidad and Tobago	6	27.1	5.62
620	Portugal	7	19.6	4.06
528	Netherlands	8	17.0	3.52
558	Nicaragua	9	12.7	2.64
124	Canada	10	10.6	2.19
484	Mexico	11	9.0	1.87
52	Barbados	12	8.6	1.79
344	China, Hong Kong	13	7.7	1.60
76	Brazil	14	6.5	1.34
251	France	15	6.0	1.24
			437.5	90.74

Source: Authors based on UNCOMTRADE

## DEFINING SANITARY AND PHYTOSANITARY STANDARDS (SPS) AND TECHNICAL BARRIERS TO TRADE (TBT)

SPS and TBT measures together are described as technical measures

under the Multi-Agency Support Team (MAST) nomenclature which was adopted by UNCTAD's Group of Eminent Persons in July 2009 and revised in 2012. The MAST nomenclature is one among a list of several classification systems (see **Box 1** in Appendix) that seek to identify all non-tariff measures or commercial policy instrument other than tariffs that may affect trade. The MAST nomenclature identifies two broad categories of NTMs; import measures, which include technical and non-technical measures; and export measures. Technical measures include SPS and TBT measures.

NTMs may evolve into barriers to trade (NTBs) where they are used excessively. SPS and TBT measures, however are different from traditional rent-seeking policies such as tariffs and quotas because they have as their prima facie objective, protecting human, animal, plant and environmental health by correcting market inefficiencies such as information asymmetry between traders and consumers regarding the quality of imported products and addressing situations where goods are consumed under negative externalities.

Annex A of the SPS agreement<sup>xiii</sup> defines SPS measures as any measure applied;

“(a) to protect animal or plant life or health within the territory of the Member from risks arising from the entry, establishment or spread of pests, diseases, disease-carrying organisms or disease-causing organisms;

(b) to protect human or animal life or health within the territory of the Member from risks arising from additives, contaminants, toxins or disease-causing organisms in foods, beverages or feedstuffs;

(c) to protect human life or health within the territory of the Member from risks arising from diseases carried by animals, plants or products thereof, or



from the entry, establishment or spread of pests; or  
(d) to prevent or limit other damage within the territory of the Member from the entry, establishment or spread of pests.”  
(SPS Agreement, Annex A, 77)

The agreement lists the following as constituting SPS measures:

“all relevant laws, decrees, regulations, requirements and procedures including, *inter alia*, end product criteria; processes and production methods; testing, inspection, certification and approval procedures; quarantine treatments including relevant requirements associated with the transport of animals or plants, or with the materials necessary for their survival during transport; provisions on relevant statistical methods, sampling procedures and methods of risk assessment; and packaging and labelling requirements directly related to food safety.” (SPS Agreement, Annex A, 77)

TBT measures on the other hand, based on Annex A<sup>xiv</sup> of the TBT agreement include; technical regulations, standards and conformity assessment procedures. Technical regulations provide mandatory guidelines that cover product characteristics, production methods and process; whereas standards specify non-mandatory guidelines covering product characteristics processes or production methods.

In addition to government stipulations, there also exists an infrastructure of voluntary private standards. These private standards originated in developed countries but their geographic scope and

domain have expanded. Hobbs (2014) identifies three layers of private standards;

1) Voluntary consensus standards implemented by a coalition of firms and industries and possibly involving government. Examples include GlobalGap (initially EurepGap), which is a business to business standard that covers food safety, environmental issues, animal welfare and worker health and safety initially developed by European Supermarket Chains and their suppliers and; Global Food Safety Initiative (Consumer Goods Forum) which attempts to consolidate private food safety standards and certifies existing private standards such as British Retail Consortium, Safe Quality Food (SQF), and International Food Standards (IFS). Other examples include: Assured Food Standard applied by producer organizations in the UK; CanadaGap (Canadian Horticultural Council) and ChinaGap.

2) Proprietary standards that may be applied by individual firms. Examples include Nature's Choice (Tesco PLC); Wholefoods and Starbucks

3) Third party standards applied by NGOs and independent standard-setting bodies such as the International Organization for Standardization (ISO)

## **CHALLENGES AND OPPORTUNITIES ASSOCIATED WITH SPS AND TBT MEASURES**

### **CHALLENGES**

While the intention of the WTO SPS and TBT agreements is to safeguard the interests of importing countries without impeding trade for exporting countries, the reality is that trade from developing countries is often obstructed by these measures. The sections that follow examine the challenges that TBT and SPS measures pose to developing country exporters with special reference to Guyana.

### ***Impact of TBT and SPS measures on market entry***

Given the objectives that TBT and SPS measures seek to achieve they are clearly important instruments for entry into foreign markets, because whether privately or publicly stipulated complying with them is mandatory. However their implications for entry into foreign markets is compounded by the fact that with the lowering of tariffs they have increased in absolute and relative terms (Peridy and Ghoneim 2013). In fact, according to Fugazza (2013), and supported by Tran, Wilson and Anders (2012) TBT and SPS measures account for the majority of NTBs that countries face and have been proliferating mainly in the markets of developed countries in response to increased demand by consumers for safer imported food and agriculture products.

Not only have government regulations increased as barriers to trade but private standards also. In fact, Hobbs (2014) posits that private standards have increased much more than government regulations. They are also more stringent than government regulations (Shafaeddin 2007). Beghin (2013) and Blind *et al.* (2013) link the growth in private standards to a restructuring of global markets for food products that sees production activities being internationalized, supply chains extended and quality increasing in importance as a basis for competition. Consequently, private operatives now have greater responsibility for food safety and quality in developed markets. For instance, standards are increasingly being used in the food retailing sector by large supermarket chains (Hobbs 2010). Hobbs (2014) identifies the need for product differentiation, competitive advantage, enhanced supply chain management, reduced liability, achieving ethical/social objectives, lowering transaction costs and negotiation costs among the reasons private operatives have developed private standards. For these reasons, private standards have become *de facto* mandatory despite being voluntary. However, these standards can have a distortionary impact on trade because they are multiple and competing (Hobbs 2014) and can particularly affect small suppliers seeking to enter global supply chains (Henson, Maskure and Laurier 2013).

In fact, empirical research generally indicate that both private and public regulations can create distortionary trade effects for exporters from developing countries *vis-à-vis* capacity for market access (Blind *et al.* 2013). Disdier, Fontagne and Mimouni (2008) for instance, showed that SPS and TBT measures of OECD countries significantly reduce agricultural exports from developing countries. Anders and Caswell (2009) find that in the case of the implementation of a Hazard Analysis and Critical Control Points (HACCP) system for seafood products in the United States leading seafood exporting countries generally experienced a positive trade effect while most of the smaller exporting countries faced a negative trade effect. Further Otsuki, Wilson and Sewadeh (2001) showed that EU-created aflatoxin standard, would reduce health risks by only 1.4 deaths per billion a year in the EU but would decrease African exports of nuts by 64% or US\$670 million in contrast to international standards set by the Codex Alimentarius Commission. Murina and Nicita (2012) also conducted an econometric investigation of the effect of the European Union's SPS measures across 21 broad categories of agricultural goods for 150 countries for the year 2010. The authors found that lower income countries experience a reduction of agricultural exports of about US\$3 billion or about 14% of their trade with the EU. Kareem (2016) also confirmed that the stringency of standards used by developed countries has a negative effect on exports for developing countries. However they argue that the effects are commodity-specific. The authors assessed the export effects of EU standards for Africa using a two-step Helpman model (2008) for two high-value commodities exported over the period 1995 to 2012, fish and vegetables. They found that fish standards are trade enhancing at the extensive margins but standards for vegetables inhibit trade.

### ***Compliance and other costs***

**Table 2** summarizes the costs associated with SPS and TBT measures. These broadly include direct compliance costs and indirect costs. Compliance costs relate to fixed costs such as investment in infrastructure and recurrent costs such as

administrative costs. It also includes variable costs such as conformity assessment vis-à-vis cost of inspection, testing and certification. Figure 9 shows that in the initial stages the investment cost associated with compliance costs can be high, which can raise the cost of exporting (Hobbs 2014). However, following this, firms will confront only recurrent costs. For instance Manarungsan, Naewbanij and Rerngjakrabhet (2005) noted that in the case of asparagus exporters from Thailand, the tightening of pesticide and other chemical residues requirements in key markets such as Japan, resulted in farmers experiencing an increase in production cost by 165% with yield lowered by 20%. The increased cost was due to the need to conduct private laboratory analyses. Shafaeddin (2007) also noted in the case of Africa, that the operational cost of compliance is somewhere between 2 to 11 percent of the value of exports, taking into consideration factors such as nature of the product, destination, capacity of the country for compliance, among other things. The authors also note that the initial investment cost can be colossal for some commodities given the value of annual earnings from exporting the commodity. In the case of Mozambique for instance, the initial investment cost for fruits was found to be over 7% of total export earnings for all food products (US \$126 Mn) for 2002. For Kenya, the World Bank (2005) found that Kenyan industrial fish processors that needed to upgrade their fish plant faced an average increase in unit production cost of 25% to comply with SPS measures.

**Table 2: Costs of complying with TBT and SPS measures**

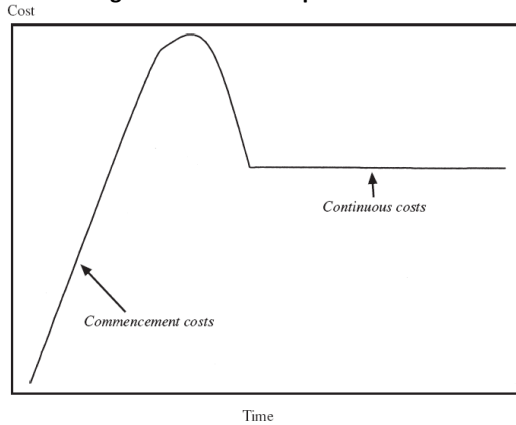
Total Costs of Complying with SPS and TBT Measures		
Direct Compliance Costs		Indirect Compliance Costs
<i>Fixed costs</i>	<i>Variable costs</i>	<ul style="list-style-type: none"> <li>• Information cost</li> <li>• Staff training</li> <li>• Re-organization of supply chain</li> <li>• Delays</li> </ul>
<ul style="list-style-type: none"> <li>• Investment in infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>• Conformity Assessment</li> </ul>	
		<i>Opportunity costs of non-compliance</i> <ul style="list-style-type: none"> <li>• Delays and Detentions</li> <li>• Switching costs</li> <li>• Lost reputation</li> <li>• Lost market share</li> <li>• Bans</li> </ul>

*Compounding factors:*

- Heterogeneity of regulations
- Lack of transparency
- Deliberate discrimination

Source: Authors

**Figure 9: Cost of compliance with Standards**



Source: Baldwin 2000

Mainville *et al.* (2005, 340 in Shafaeddin 2007) note that the “cost of compliance with private standards are higher than that of public standards because they are more complex and are often reliant on “process” than on “performance”.

Shafaeddin (2007) argued that even though some regulations, especially private standards require that exporters comply with the requirements of both the importing and the exporting country, the burden of the cost of compliance is usually entirely on the exporting country. In the exporting country both exporting firms and government bear costs since compliance requires “close cooperation between the public and private sectors” (Shafaeddin 2007, 2). For instance, the government bears costs to provide laboratory services, research and development etc. In some countries the costs are not borne symmetrically. For instance, for Mozambique the authors highlighted that the burden of operational cost is mainly on the public sector whereas the World Bank (2005) highlighted that the burden of investment cost was mainly on the private sector in the case of Indian spice exports.

Compliance costs, may be compounded where measures are different across various markets or change frequently in some markets, or are not transparent (Deardorff and Stern 1997) and therefore impose high information costs or; where exporters face discrimination relative to domestic producers or relative to exporters from other countries (see **table 2**).

Transparency generally relates to; disclosing information on NTMs, influencing their policy-making process, ensuring predictability in their application and minimizing the expropriation risks (Lejarraga, Shepherd and van Tongeren 2013). De Frahan and Nimenya (2013) posit that the lack of transparency in the application of measures can lead to discrimination against importers. Engman (2005) also notes that the lack of transparency regarding administrative procedures, such as may be associated with obtaining licenses or the complicated documentation procedures associated with outdated customs procedures, increases the transaction costs of trade and can lead to firms suffering delays. Shafaeddin (2007) argue that transparency is particularly a concern with private standards because they are not required to be reported to the WTO.

Deliberate protectionism is a challenge that has been experienced with other forms of NTBs such as quantitative restrictions and subsidies. For instance, the Rum industry of the Caribbean is currently confronting the challenge of having to deal with subsidies provided to rum producers such as Diageo, operating in US-Caribbean territories including; Puerto Rico and the US Virgin Islands. The US government transfers to Diageo and other producers 98% of the excise tax it levies on the consumption of rum imported from non-US Caribbean territories (roughly \$41 annually) (WIRSPA 2012). Deliberate protectionism is also a real challenge of SPS and TBT measures. UNCTAD (2005) notes that following the GATT rounds of multilateral trade negotiations, not only have NTBs increased as regulatory trade instruments, but also as protection. Peridy and Ghoneim (2013) argue that because of their technical and scientific nature SPS and TBT measures may be more subject to regulatory capture with less public scrutiny. This is linked to the politically

sensitive nature of food safety issues, as well as the fact that they involve technical policy matters such that producers can lobby governments to use consumer safety as a subterfuge for protection with the possibility of attracting less public and outside scrutiny.

Discrimination is also linked to heterogeneity. For instance, Guyana faces different requirements for export of pineapple to Trinidad compared to exporters from other countries. Trinidad expects pineapple crowns to be removed for fear of importing pests. However, removal of the crown increases the perishability of the product (Sealey-Adams 2016).

TBT and SPS measures may also impose other costs such as indirect costs and costs associated with non-compliance (see **table 2**). These include lost market share, lost reputation and credibility, and in extreme cases, detentions and rejections and the possibility of closure of a market (Shafaeddin 2007). For instance, Trinidad and Tobago currently maintains a ban on the importation of honey from all sources due to fears of contracting the American foulbrood disease. Grenada in 2012 faced rejections of honey exported to Trinidad for fear of this disease even though Grenada has undertaken its own scientific assessments and has concluded that the disease does not exist on the island (CARICOM Secretariat, unpublished). Guyana also recently experienced detention and rejection of rice exported to Belize<sup>xv</sup> due to the lack of a permit by the importer.

Delays at borders due to the need to conduct inspection to verify compliance of product attributes with established requirements as well as detentions can result in lost revenues. For small firms selling a homogeneous good, delays can mean high switching costs as a result of consumers changing to complying products or commodities deteriorating in storage (Achterbosch and van Tongeren 2002).

Border detentions are a good indicator of the extent to which Guyanese exporters currently face challenges in complying with the regulations of import markets. Table 3 shows detentions that Guyana has faced in the US market from 2002 to 2014. The food and



agriculture sector accounts for the majority of the detentions faced (on average about 70%). In 2012 for instance, when the country faced 63 detentions, 61 or 97% were related to exports of food and agriculture products. By and large, fish is the main agriculture product facing detentions and the concerns are with violations of labeling regulations and adulteration. Other products such as beverages, fruits, vegetables and spices have also faced detentions.

The border detention data reinforce the need to develop firm capacity for compliance with standards, approximately one third of the detentions faced in each year are related to a single exporting firm. For instance, in 2014 40% of the detentions faced were for exports by one firm.

**Table 3: Detentions of Guyana’s products at US borders**

Year	Total No. of Detentions	No. related to Food and Agriculture	% of Total	Products	Number of Detentions Related to Single Firm (% of total)		
					Food and Agriculture	Manufi ng	Nature of Problems
2002	37	16	43	Noodles, Bread, Fish, Sauces	13	62	Labelling, Unapproved new product
2003	50	43	86	Fish, Beverages, Sauces, Ground Provision	30	71	Labelling
2004	32	29	91	Fish, Sauces, Beverages, Ground Provision	28	100	Labelling, Salmonella
2005	45	33	73	Fish, Confectionary , Beverages	27	50	Misbranding , Adulteration
2006	38	26	68	Fish, Fruits, Vegetables, Sauces, Beverages	19	58	Unapproved new product, Misbranding, Adulteration
2007	7	7	100	Fish, Spices	43		Adulteration
2008	5	3	60	Fish, Beverages, Spices	33	100	Adulteration Labelling
2009	21	10	48	Fish, Cheese, Spices	50	82	Adulteration, Labeling, Unapproved new product
2010	23	17	74	Fish, Pepper, Spices	35	80	Labelling, Adulteration
2011	30	24	80	Fish	60	33	Adulteration Unapproved new product

2012	63	61	97	Fish	97	50	Adulteration Unapproved new product
2013	18	7	39	Fish, oil, coconut	43	73	Misbranding
2014	14	6	43	Fish, Beverages, Fruits	40	70	Misbranding
<b>Source:</b> Authors based on FDA data. <a href="http://www.fda.gov/forindustry/importprogram/importrefusals/default.htm">http://www.fda.gov/forindustry/importprogram/importrefusals/default.htm</a>							

### *Impact of heterogeneous regulations on market diversification*

As highlighted earlier, heterogeneity compounds market entry costs. Heterogeneity is where the same regulations are designed or applied differently by different markets due perhaps to; differences in scientific justification, risk tolerance and use of the precautionary principle under the SPS agreement (Article V.7), or differences in conformity assessment procedures. Heterogeneity also arises due to differences in the requirements of importing and exporting countries (OECD 2000). Heterogeneity further increases trade costs as exporters face additional costs to export to multiple markets as they must adjust their product or production process to reflect the relevant regulations of each destination market (Beghin 2013). This is tantamount to a duplication of compliance efforts and costs (OECD 2000). This distorts the cost structures of various markets (ibid 2000) and restricts firms from taking advantage of economies of scale in compliance and can consequently affect their productive efficiency and competitiveness.

A study by De Frahan and Vancauteran (2006) (in Liu and Yue 2013) corroborate the effect of heterogeneity. The authors used a gravity model to quantify the effect of harmonization of EU food regulations on intra-EU trade during 1990–2001 and found that harmonization of food regulations has led to more intra-EU trade.

A notable example of heterogeneity is in the difference in the HACCP regulation of the US and the EU for fish processors

“... the EU has added requirements with respect to the design of facilities and also requires water quality tests for harvesting

areas, which are not mandatory requirements of the United States. The EU also has a two-tiered certification system. On one level, the entire country must be certified (domestic laws harmonized with EU food safety regulations) before exporting to the EU. On another level, individual exporters must also be certified. The United States looks only at individual exporters, though it requires third-party certification. The EU's approach to the quality management system is also more integrated than that of the United States, which looks at individual regulations/standards. Therefore the EU is more concerned about the layout of facilities, sources of freshwater and points of disposal, disposal of waste, treatment of workers, etc. These added requirements are prohibitive to exports from Guyana, reflected by the fact that all major FFP exporters are certified to export to the United States but only one is certified to export to the EU." (DaSilva-Glasgow and Bynoe 2012, 206).

Heterogeneity can act as an impediment to trade (OECD 2000) and limit the number of markets that firms are able to export to. With differing regulations firms are essentially forced to make a choice among the most lucrative markets to export to. Two theses help to explain how exporters are likely to make their decision about markets to pursue in light of differing regulations. Based on the scale (market size) hypothesis of Ganslandt and Markusen (2001) where exporters face divergent regulations in export markets they will base their compliance decisions on market size such that exporters would be more willing to comply with the requirements of larger markets in order to accrue the rents associated with such markets. The location hypothesis of Oyejide, Ogunkola and Bankole (2000) makes a similar conclusion. Based on this hypothesis where firms face stringent

standards and regulations in foreign markets, they would be naturally drawn towards markets in geographical proximity. Both theses have implications for Guyana's trade with CARICOM. In the case of the former, the existence of standards and divergent regulations in the individual small fragmented markets of CARICOM countries can see Guyanese exporters preferring to export to larger external markets where the benefits of compliance will outweigh the costs. In the case of the latter, Guyanese firms could be more drawn towards the CARICOM and other markets in proximity where regulations are likely to be laxer.

### ***Structural constraints***

The nature and extent of the impact of SPS and TBT measures is influenced by a number of factors such as size of exporting firms, nature of the destination market, economic status of the exporting country and consequently, scientific, legal and other capacity for compliance (Blind *et al.* 2013; Liu and Yue 2013).

Guyana displays a number of the structural constraints identified in the literature including the fact that exporters are predominantly small with export markets being largely undiversified and concentrated mainly in developed countries.

Developing countries generally are more affected by regulations due to constraints *vis-à-vis* administrative, technical and financial capacity to implement standards and technical regulations domestically and to comply with those established by trading partners (Beghin 2013; de Frahan and Nimenya 2013; World Bank 2005). However, among developing countries the cost of compliance is asymmetrical according to Murina and Nicita (2012). For instance, for Kenya, the World Bank (2005) found that Kenyan industrial fish processors faced an average increase in unit production cost of 25% to comply with SPS measures. In contrast for Bangladesh and Nicaragua, the cost of upgrading fish plants was not seen as

significant. Anders and Caswell (2009) also found that in the case of the implementation of a Hazard Analysis and Critical Control Points (HACCP) system for seafood products in the United States (U.S.) leading seafood exporting countries generally experienced a positive trade effect while most of the smaller exporting countries faced a negative trade effect regardless of their status in terms of economic development.

The degree of coordination between the public and private sector also influences who bears the burden of compliance. Shafaeddin (2007) found that for Mozambique the burden of the cost was mainly on the public sector. This is in contrast to findings by the World Bank (2005) that shows that the burden of the investment cost for compliance, in the case of Indian spice exports, was mainly on the private sector.

Smaller exporting firms are more likely to be negatively affected by TBT and SPS measures, particularly private standards. For small firms, TBT and SPS measures may act as a prohibitive tariff that forces them to exit a market and serve only the domestic market or markets with laxer regulations or to switch to products attracting less standards and regulations (Lee, Gereffi and Beauvais 2012). Lee, Gereffi and Beauvais (2012) also note that private standards can cause small exporters to downgrade their activities given the considerable financial and information and network resources required for compliance. DaSilva-Glasgow and Bynoe (2012), for instance, examined this in the case of fish exporters from Guyana. The authors identified two noteworthy trends. Firstly, declining export share of the EU market over the period 1997 to 2002 as a response to EU HACCP requirements. Secondly, increasing exports to the CARICOM market, possibly due to less stringent food safety regimes. For instance, nutrition labelling which is mandatory in the US, is not mandatory in CARICOM markets.

## OPPORTUNITIES

Even though the majority of empirical studies have cited a negative impact of SPS and TBT measures, there are studies have cited instances where exporters from developing countries were able to reap gains from complying with such measures in spite of the costs required to demonstrate compliance. According to the World Bank (2005) exporters can gain recurring benefits such as access to more remunerative markets and supply chains, and reduction in costs, as well as non-recurring benefits. The sections that follow expand on the avenues through which TBT and SPS measures may offer opportunities for increased competitiveness and exports.

### *Upgrading in global value chains*

Global value chains reflect a new paradigm in international trade. It refers to the “international production networks of firms investing in productive assets worldwide and trading inputs and outputs in cross-border value chains of various degrees of complexity. Such value chains (intra-firm or inter-firm, regional or global in nature) are shaped by multinational firms and account for some 80% of global trade” (UNCTAD 2013).

This phenomenon has not escaped agriculture and food trade. A lot of food trade is taking place through supply and value chains that are governed mainly by actors in developed countries such as large retailers such as Supermarkets chain (Lee, Gereffi and Beauvais 2012). In fact, the International Food Policy Research Institute (n.d.) posit that the specialized markets has become the norm through which high value agricultural products are traded globally. For instance OECD (2006) note that large retailers purchase about 25% of the fresh fruits and vegetables that developing countries produce. The preeminence of large retailers in trade of high-value agricultural commodities is linked to the nature of such commodities. High-value products benefit from a high income elasticity of demand because of

their perceived health benefits. Therefore demand has been rising in high income countries (*ibid* n.d.). Further, produce prices of high value products are highly sensitive to variations in quality because such products tend to have minimal processing and are therefore typically perishable (*ibid* n.d.). Quality has therefore become the hallmark of competitiveness with retailers using quality-based competition to consolidate and expand their market share and appeal to premium-paying consumers (*ibid* n.d.). As such large retailers are driven to administer their own standards. This has created a paradigm shift in marketing channels as retailers use these standards to select downstream firms with which they will enter into arrangements as a means of reducing risks along the entire supply chain (Lee, Gereffi and Beauvais 2012). Two types of value chains emerge under these conditions. *Firstly*, a buyer-driven chain where retailers exert greater control over the source of products by tightening vertical coordination of the chain through sourcing from cooperatives, contract farming and vertical integration. This trend gives Guyanese exporters to chance to use compliance as a means of gaining the confidence of their clients and tapping into such supply chains. Such arrangements however tend to contribute to a consolidation of suppliers who are able to comply with the standards established. A noteworthy example of upgrading in a buyer-driven chain is in horticultural trade between the UK and Africa. “In response to heightened public safety regulations, British retailers shifted toward greater vertical coordination with fewer and larger UK importers and African exporters, and their use of private standards (e.g., EurepGAP) has led to the rise of large-scale export chains for big supermarkets, using plantations and large contract farmers alongside smallholder-based production.”

Secondly, a supply-driven chain where standards form the basis for buying arrangements but relations between suppliers and retailers occur on an arm’s length basis. Hobbs (2010) also argues that private standards can facilitate access to multiple supply chains and facilitate greater product differentiation. This means that small exporters and farmers need not face marginalization. Lee, Gereffi and Beauvais (2012) note that small farmers have been able to successfully use a “branding from below” strategy to counter the “branding from above”

strategy of retailers by using such attributes as organic or fair trade to tap into markets. They cited the example of small fruits and vegetable exporters from Mexico and Peru who were able to upgrade. For instance, in 2003 in the US a break out of hepatitis A sparked concerns for green onions exported from Mexico. As farmers were already certified as GAP and GMP, rather than exit the market, a group of growers, in collaboration with government agencies developed an export protocol for green onions. Consequently exporters were able to sustain their access to the US market (Lee, Gereffi and Beauvais 2012).

### ***Sustaining demand by increasing consumer confidence***

Standards and regulations can enhance trade by providing better information about traded goods (World Bank 2005; van Tongeren, Beghin and Marette 2009; Beghin *et al.* 2013). Certification for instance, helps to reduce information asymmetry and signal commitment to quality production processes, thereby improving the reputation of firms and their performance in international markets (Blind *et al.* 2013). According to the World Bank (2005), without this confidence the market for certain products cannot be maintained, more so increased. The World Bank (2005) describes this as ‘the avoidance of the lemons problem’ since the regulations eliminate the externality that is causing the under provision of safety. The breakout of the bacterium *Escherichia coli* strain 0104:H4 in Germany in 2011 illustrates the World Bank’s point. The break out affected 4000 people and caused 50 deaths and US\$2.84 in billion in human losses. The source of the bacteria (imported or local materials) was uncertain. As a result, demand for fresh fruits and vegetables declined across the entire European Union (EU) with farmers claiming losses of up to 400 million euros per week (Day 2013).

Compliance can seek to enhance the reputation of firms and stimulate demand thereby providing the basis for sustainable trade. Jaffee and Henson (2005) in Xiong and Beghin (2013) showed that Kenyan fresh



vegetable growers were able to expand their exports to EU after successfully meeting EU sanitary standards. Manarungsan, Naewbanij and Rerngjakrabhet (2005) also showed that while Thai asparagus farmers faced higher operation costs to comply with a tightening of pesticide and chemical residue standard requirements in key markets, they were also able to receive a price that was 29% higher for asparagus compared to previously.

### ***Non-price competitiveness***

TBT and SPS measures provide scope for competition on the basis on non-price factors such as quality, and non-quality factors including; marketing services after sale, company image, management, branding etc.; technique competition; and social and environmental issues (ethical trade). For instance, with respect to the latter Lee, Gereffi and Beauvais (2012), note that there is scope to differentiate products using attributes such as fair trade and organic. Ma and Lu (2011) hints that non-price factors may be more sustainable forms of competition as price competition has proven to deteriorate terms of trade.

### ***Improving firm productive efficiency***

Part of the positive impacts that SPS and TBT measures can have on trade for exporters relates to the internal changes that it can spur within firms. By investing in technological capability and standardizing the production process through investments to demonstrate compliance firms can increase the coherence of functions in the production process (DaSilva 2008). Some measures can have positive externalities such as technology transfer (Beghin *et al.* 2013). This can lead to economies of scale that can result in increased allocative and productive efficiencies allowing firms to be able to sustainably export to various markets. By improving their productive efficiency firms can produce products at a more consistent quality.

## STRATEGICALLY RESPONDING TO SPS AND TBT MEASURES

Drawing from the Hirschman Political Economy Framework, Henson and Jaffee (2006) examined firms' response to standards and regulations on the basis of three dimensions:

1. **'Exit', 'voice' or 'loyalty'** options; where firms stop exporting to a particular market, voice their complaints regarding measures or simply comply.
2. **'Proactivity'– 'reactivity'** dimension; where firms strategically stay ahead of regulations or simply comply post enactment of the regulation in importing countries.
3. **'Offensive'– 'defensive'** dimension; where firms seek to complain against standards to have the status quo maintained or use standards strategically as a means of increasing their competitiveness.

Exit is often associated with firms that are reactive to measures put in place. But this effect may still occur for firms that are proactive where the measure is burdensome and may particularly affect small firms. Loyalty is associated mainly with large firms that have the capacity to factor in regulations and stay ahead of those requirements (proactive and offensive) and are therefore better able to comply.

According to the World Bank (2005) the experience of many developing countries shows that they have tended to intervene in addressing SPS measures, *ex post*. This usually occurs after products have been detained by importing countries and trade disrupted.

Shafaeddin (2007: 2) note that the preparation for compliance is "knowledge intensive, requires a learning period, training and a close cooperation between the public and private sector in various stages of the supply chain." This suggests that there is a time process to complying with regulations that requires planning. Therefore reactivity can prove very costly to exporters *vis-à-vis* lost market and the possibility of delays and detentions. Therefore firms ought to have a strategic mindset towards complying with TBT and SPS measures,

especially private standards by using compliance as a means of increasing their efficiency and consequently enhancing product quality and their competitiveness (DaSilva and Bynoe 2012). In fact, Ma and Lu (2011) in analyzing market access in the face of NTBs, using a decision-process framework, makes a number of useful points including that from a management perspective export entry is the result of a strategic choice- some barriers can be easily overcome through planning and staying up to date with changes in NTBs, while others may take longer.

Clearly therefore proactivity is important if benefits are to be derived from complying with standards. It also helps to defray costs such as delays and detentions at the border. OECD (2006) argues that if firms act offensively, they can spur new competitive advantages and investment in technological capability. Acting proactively means investing in building capacity. The UNDP (2010 in Day 2013:15) defines capacity as “the ability of individuals, organisations and societies to perform functions, solve problems, and set and achieve objectives in a sustainable manner”. This suggests that capacity “is a property of a system comprising a range of different actors and the formal and informal linkages between them” (Day 2013: 15). Therefore capacity is herein assumed to be the ability of personnel, firms, government agencies and the entire supply chain and the food safety system of the country to effectively and sustainably comply with SPS and TBT regulations. The World Bank (2005) for instance, notes that developing countries that have faced problems in export markets often lacked control at various levels of the supply chain. Acting proactively also means strategically reorganizing the supply chain if necessary to ensure that small farmers and exporters are not marginalized from export markets (Shafaeddin 2007). Lee, Gereffi and Beauvais (2012) note for instance that the success of small farmers in buyer-driven global value chains depends on public institutional support as well as their relationship with larger exporters. They cited the example of stagnant exports of non-traditional agro exports from Jamaica as an illustration of why local efforts are necessary to support upgrading.

Manarungsan, Naewbanij and Rerngjakrabhet (2005) cites the example of Peru with asparagus to show the benefits of proactivity. During the 1990s when asparagus exporters were affected the botulism scare that was triggered by canned asparagus in Peru, in order to maintain its exports and its position as the world's largest exporter of asparagus, the industry and government took proactive action by implementing the Codex Alimentarius Protocol on food safety. In addition, a newly established national body published national technical standards for asparagus. Producers also obtained GAP, GMP, HACCP and EurepGAP certification. These actions improved the quality and safety of asparagus from Peru.

Manarungsan, Naewbanij and Rerngjakrabhet (2005) also gave an example of a Thai horticultural exporter that was proactive when faced with changes to British Retail Consortium (BRC) and EUREPGAP standards. The company invested in lands that were compliant with Good Agricultural Practices, and training of staff, among other measures. As a result, "the company's sales grew from US\$3.3 million in 1999 to US\$8.5 million in 2003 and to an estimated US\$11.5 million in 2004" (Manarungsan, Naewbanij and Rerngjakrabhet 2005, 6)

## CONCLUSION AND RECOMMENDATIONS

High-value products offer opportunities for Guyana to diversify its production and export base in the food and agriculture sector. However, the *modus operandi* of marketing for such products on the global level is that trade is increasingly taking place through large retailers, who for their own competitiveness, emphasize quality. Complying with these regulations is critical to being able to be secure buyers and facilitate sustained trade. Publically-established regulations are also mandatory for goals that they seek to achieve, protecting human, animal and plant life and resolving information asymmetry which means that they will continue to be critical requirements to accessing export markets. Research has clearly

established that the opportunity costs of non-compliance is significant from a socio-economic perspective and can stretch across both the short and long run. Strategically responding to measures helps to minimize the costs and maximize the gains from compliance. Strategically approaching compliance simply means to act proactively or offensively towards standards and regulations. This requires a collaborative approach between the public and private sector to build capacity for effective compliance with measures

The following recommendations will help to increase the capacity of Guyana to tap into global high value markets through compliance with TBT and SPS measures.

- Understanding the local supply chains for major non-traditional products including who are the main players, how the chain is governed and the role of small farmers and exporters, and the relevant SPS and TBT issues that will impact value chain development.
  - Understanding thoroughly the current capacity of producers and exports of non-traditional products to effectively comply with SPS regulations in order to be able to identify deficits.
  - Prioritizing interventions for compliance based on needs and gaps of exporting firms, supporting institutions and the entire quality system and infrastructure of the country.
  - Ensuring that an integrated approach is maintained where quality is emphasized at every stage of the supply chain, farm, processing, port facilities etc.
  - Providing training and disseminating critical information to firms where necessary.
  - Investing in capacity for market research *vis-à-vis* TBT and SPS requirements for value chains for non-traditional products.
  - Building scientific, legal and other capacity through investment in infrastructure and relevant public institutions.

- Being a strong advocate for a harmonized SPS regime at the regional level (to counter the trade debilitating impact of heterogeneity in the CARICOM market).

## ENDNOTES

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- <sup>iii</sup> *Ibid* 2011
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- <sup>v</sup> *Ibid*
- <sup>vi</sup> *Ibid*
- <sup>vii</sup> See [http://www.guysuco.com/about\\_gsc/gscoday/sugar\\_agreements/default.asp](http://www.guysuco.com/about_gsc/gscoday/sugar_agreements/default.asp)
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- <sup>ix</sup> See <https://devtracker.dfid.gov.uk/projects/GB-1-202441>
- <sup>x</sup> See [http://ctrc.sice.oas.org/TRC/Articles/Guyana/NDS\\_Ch1\\_8.pdf](http://ctrc.sice.oas.org/TRC/Articles/Guyana/NDS_Ch1_8.pdf)
- <sup>xi</sup> See <http://narei.org.gy/wp-content/uploads/2016/06/Climate-Smart-Training-Manual.pdf>
- <sup>xii</sup> See [http://www.cgiar.org/www-archive/www.cgiar.org/pdf/cp\\_cn\\_highvaluecrops.pdf](http://www.cgiar.org/www-archive/www.cgiar.org/pdf/cp_cn_highvaluecrops.pdf)
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# CORRUPTION AND STATE CAPTURE UNDER TWO REGIMES IN GUYANA: A PLURAL SOCIETY APPROACH

Duane C. Edwards

## ABSTRACT

*This paper compares and contrasts the nature of corruption under two regimes in Guyana. It argues that corruption in ethnically plural societies such as Guyana is influenced by two main factors. In the first instance the states in these societies were not natural evolution from the societies but were established with the explicit aim of institutionalizing the dominance of one ethnic faction over all others. Secondly classes and class positions in these societies are invariably fluid and mutable. The state therefore is used by ethnic groups as a means through which both economic and political power can be attained and exercised with the latent function of enhancing the socio-economic position of the ethnic groups in the socio-economic stratification system. Consequently, the nature of this battle for power creates an environment of uncertainty which serves as a pressure upon the ethnic elites in power to accumulate as much economic resources by both legitimate and illegitimate means before their hold on political power comes to an end. Based on this analysis, the paper also proposes some measures which are likely to minimise the temptation to engage in corruption practices.*

**Keywords:** Corruption, State Capture, Ethnicity, Social Stratification, Social Cohesion

## INTRODUCTION

Guyana has been consistently gaining low scores and high ranking on the Corruption Perception Index (CPI) of Transparency International. Prior to the 2015 general and regional elections, while there were always challenges to these ratings in some sections of the society, the general view seems to have accorded with TI's ratings. For about a decade preceding the 2015 elections, Guyana, in the perception of many, had fallen victim to an interesting manifestation of state capture and corruption. Scholars and opinion shapers struggled in their attempt to apply a label to this phenomenon in a way which could capture its main dimensions and characteristics. Thomas *et al.* (2011) describes the state during this period as a 'criminalized state' to highlight the link between the state and the criminal underworld. Fredrick Kissoon employs the label of 'elected dictatorship' in an attempt to capture and highlight the irony of a government having all the electoral trappings of a democratic state but could still be considered dictatorial because of the subverting of the constitution in other aspects of political life (Kissoon 2010). Khemraj (2013) uses the label 'elected oligarchy' to capture the way in which a small group of ethno-political leaders monopolizes the resources of the state and aspects of the private economy. Though the descriptions employed by Thomas and Kissoon capture essential features of the government in the period in question, it is the analysis of Khemraj which seems more instructive. His analysis moves beyond the conceptual and highlights the historical, legislative and ethnic dynamics which provided the enabling environment exploited by the ethno-political elite. The current paper adopts a similar approach but with respect to state capture (operationalized as political corruption) and financial corruption by Cabinet members.

This paper agrees with Tanzi (1998, 30) that corruption (political, economic or otherwise) is a complex phenomenon which is influenced by different factors in different countries. The solution to corruption, then, can be no single, simple solution. Accepting this postulate, it is logical to assume that the causes or factors which influence corruption in largely homogeneous societies will be different in ethnically plural

societies. It is argued here that corruption in ethnically plural societies such as Guyana is influenced by two main factors. In the first instance the states in these societies were not natural evolution from the societies but were established with the explicit aim of institutionalizing the dominance of one ethnic faction over all others. Secondly, classes and class positions in these societies are invariably fluid and mutable. The state therefore is used by ethnic groups as a means through which both economic and political power can be attained and exercised with the latent function of enhancing the socio-economic position of the ethnic groups in the socio-economic stratification system. Consequently, the nature of this battle for power creates an environment of uncertainty which serves as a pressure upon the ethnic group in power to accumulate as much economic resources by both legitimate and illegitimate means before its hold on political power comes to an end. Based on this analysis, the paper also proposes some measures which are likely to minimise the temptation to engage in corruption practices.

The paper is organized in the following form. The first part makes a case for the foregrounding of corruption on the national agenda and the national consciousness. This is followed by the second part which presents a brief literature review that covers some conceptual, theoretical and empirical issues covered by the literature on corruption. The third part highlights and analyses the manifestation of corruption during the post-independent Government led by Forbes Burnham. This is followed by an analysis of the evolution and changing form of corruption under the post-1992 government, specifically during the period by Bharrat Jagdeo. This is then followed by the fifth part which provides a general discussion of some of the issues brought out in the historical/sociological analysis of corruption during the two periods in question. And, the final part provides some policy recommendations informed by the preceding analysis.

## **WHY IS IT IMPORTANT TO KNOW ABOUT AND ADDRESS CORRUPTION?**



***Corruption threatens social cohesion by enhancing ethnic suspicion and intra and inter-ethnic stratification***

Before the General and Regional Elections in 2015, the perception of corruption was very high. This perception was no doubt fueled and informed by almost daily reports in the mainstream media about corruption especially among the Executive arm of Government. This high level of corruption in the society resulted in two simultaneous, though opposing tendencies in the society. On one hand, it resulted in heightened criticism of the Government. This criticism came from various sections of the society, namely the independent media, the political opposition, and the supporters of the political opposition. Of the three sections referred to above, the political opposition and its supporters criticised not only the acts of corruption but the tendency for the beneficiaries of these corrupt acts to be persons of a particular ethnic group. The Executive was quick to place an ethno-political spin on these criticisms and thereby used it as a means of galvanising its own support base. The high level of corruption, therefore, indirectly heightened and reinforced ethnic tensions in the society and became a threat to social cohesion. On the other hand, however, perception of corruption resulted in the emergence of a small multi-ethnic group inspired and held together only by its need for a more conscionable approach to governance in Guyana. This group is a relatively small group, but it was large enough to effect electoral changes by combining its voting power with that of the opposition. While this integrating tendency is very important and should be further analysed, this paper will focus on the disintegrating tendency of corruption and the perception of corruption in Guyana.

***Corruption leads to state capture and the subverting of national institutions***

Menke (2011) argues that one of the fundamental differences in pre-colonial and (ex) colonial societies is that while the nation precedes the state in the former, the relationship between the nation and the state is inverted in the latter. Along with this inversion of the

nation/state relationship, there is also an inversion of the class/state relationship. In Western European societies of the 19th century the development of economic classes preceded the development of the state, the state therefore was the creature of a particular class with a particular class interest. In the ex-colonies the reverse is true - the state preceded the formation and crystallization of local classes. The state then became the instrument through which classes are formed and crystalized. There is the tendency then for ethnic groups to capture the state with the sole intent of converting its social capital to financial and economic capital – of transforming its horizontal relationship with other ethnic groups into a vertical relationship.

### ***Corruption forestall national development***

Corruption and the perception of it can serve as a threat to overall national development by inducing a spirit of selfishness and greed rather than a spirit of service and collective responsibility resulting in the diverting of attention from transforming the economy for the benefit of the nation to extracting as much as possible from the economy for the benefit of specific groups. Governance and development becomes then, secondary to rent-seeking and corruption.

### ***Corruption contributes to capital flight***

Gains from corruption are better saved and hidden outside the country in order to avoid detection and confiscation. This will no doubt have a negative financial impact on the economy in question. There is a growing body of literature which assesses and highlights the relationship between corruption and capital flight. Swaleheen (2008) for example, by means of an empirical cross-country analysis, presents evidence that corruption adversely affects the gross national savings rate.

***Corruption induces a spirit of hopelessness influenced by a breakdown of the expectations of a meritocratic system***

Modern societies are held up by the value of equality of opportunity. Everyone expects that s/he should be able to work through legitimate means and be able to move up the socio- economic ladder based on merit and hard work. Whenever persons sense that their social mobility is being hindered because of their race, ethnicity and other such ascribed factors, they tend to lose confidence in the fundamental principles which undergird modern societies. This inspires a feeling of hopelessness by those who are not near to the centers or network of socio-economic power. When the societies are racially/ethnically divided this dynamic no doubt is manifested racially/ethnically (McDougall 2008).

***Corruption could be costly***

The proliferation of corrupt practices necessitates the creation and function of oversight institutions which divert both government and masses focus and resources away from more sustainable development programs. In countries such as Guyana which are beset by numerous developmental challenges, corruption adds to the menu of social challenges which beg for immediate attention. This lessens and leads to the exhaustion of both the physical and intellectual resources which could have been channeled in more productive areas.

**POPULAR EXPLANATIONS OF CORRUPTION: REVIEWING  
THE LITERATURE**

***Conceptual issues***

Corruption is generally defined as any act by persons holding public position which contravenes standing rules or ethics for personal

benefits (Transparency International 2016). This definition, as most definitions, tries to capture the concept on a very general level taking into its conceptualization a countless numbers of acts and activities by persons holding public offices. This generalized definition, notwithstanding, corruption is one of those concepts, like ethnicity, which have multiple dimensions and types and are therefore used differently by different persons to refer to different things. Any cursory glance at the literature of corruption readily reveals this reality. This signals the need for the development of a typology of corruption which would add conceptual and theoretical clarity. Towards this end Khan (2006, 2004) attempts the development of a typology which correlates intervention types in a four cell table. Bussell (2015) proposes a typology which takes into consideration the kinds of resources which are extracted and the persons who have direct and indirect control over those resources. While these typologies are useful, a typology which takes into account the flow of benefits is also needed especially with regard to societies such as Guyana. With some types of corruption, the benefits flow from officials tasked with power and responsibility to persons close to them in some regards or persons who share their political or social characteristics. In other cases the benefits flow the other way. And, yet in other cases, there is a two way flow of benefits. Although all these acts may be in contravention of formal rules, much can be learnt from the direction of flow of benefits, thereby differentiating the types of corruption on a practical level.

The lack of a comprehensive typology does not however hinder the development of theoretical explanations of corruptions, although in many instances these theoretical explanations are too general to be of any assistance on a practical, policy intervention level. Some of these theoretical explanations are reviewed below.

### *Social structures and corruption*

One set of literature attributes corruption to the kinds of social

relations which characterize a given society. According to this viewpoint, many countries have thrown off the shackles of colonialism approximately 50 years ago. Before the advent of colonialism, these countries were steep in traditions which conflict in very fundamental ways with many of the requirements of a modern bureaucratic state. Colonialism transformed these spaces to culturally invaded spaces in which many traditional norms survived along with imposed rules-governing bureaucratic behaviour. Felson (2011), for example, argues that corruption is an effect of the tension between the primary human imperatives of close-networks guided by kinship values and the bureaucratic logic of systems organized on the basis of organic solidarity or rational-legal values. Using a Weberian framework, the author argues that traditional and patrimonial social systems are organized in such a way that there is hardly any conflict between primary human imperatives and systems imperative. Societies which are organized along the modern, rational-legal, bureaucratic form conflicts in many ways with these primordial instincts. In line with this theory Constantine (2016a), who focused primarily on perception of corruption, argues that the perception of corruption is fundamentally determined by the degree of formal or informal politico-socio-economic interactions and these are in turn determined by the economic structure of the given society. Those societies with simple and undifferentiated economic structures are usually dominated by informal interactions, consequently, there is a high degree of the perception of corruption as the *modus operandi* of the actors in those societies differs from those in societies where the formal bureaucratic rules dominate. Moreover, there is a tendency in developed societies to change rules to accord with dominant interest thereby lessening the perception of corruption (Constantine 2016a; Johnston 2013). There is a fundamental contradiction in this thesis as it is not clear whether the perception of corruption arises because of tensions between the two forms of organizing societies (organic as opposed to mechanical solidarity) or because the rules in one society accords with (or deviate from) group demands. In one case there is the argument that in societies characterized by informal rules, those rules tend to accord with the natural demands of the groups in the society, and on

the other hand there is the thesis that societies in which formal rules dominate, those rules are changed to accord with dominant group interest.

### ***Social and economic functions of corruption***

In attempting to explain the persistence and ubiquity of corruption, some theorists have argued that corruption is functional to modern societies. The functional benefits of corruption range across a broad spectrum of social life. Abueva (1970, 1966), for example, argues that corruption serves certain institutional and societal needs. The 'grease the wheel' viewpoint posits that in countries with tardy and inefficient bureaucracies and governance institutions, corruption could play a positive role by providing an avenue in which certain processes could be expedited resulting in higher bureaucratic efficiency (Huntington 1968; Leys 1965). The opposite view is posited by Meon and Sekkat (2005) who, by means of empirical evidence, posit that corruption is even more harmful in countries where governance is poor. Another set of literature examines the relationship between corruption and economic growth. Literature which highlights the negative impact of corruption on economic growth and development abounds (Abed and Davoodi 2000; Akcay 2006). Arguing against this general treatment, Drury et al. (2006) found that the negative economic effects of corruption are more likely in non-democratic societies than in democratic societies, because while corruption can be found in both types of societies, the democratic mechanism prevents it from becoming too entrenched and disruptive of economic progress in democratic societies. On the other hand, Swaleheen (2008) found that while corruption has a negative direct effect on *per capita* growth, it is important to take into any analysis, the levels of corruption and quality of democracy. Low levels of corruption could have negative effect on growth in genuine democracies, while high levels of corruption was found to have growth enhancing effect in countries with low levels of democracy. This view is supported by Houston (2007) who also

found that corruption can positively impact economic growth by serving as a substitute for a tardy bureaucracy and unsound legal frameworks. Making a distinction between growth and sustainable development, Aidt (2009) argues that while the average effect of corruption on GDP growth might be negligible, there is certainly a significant effect of corruption on sustainable development.

There is also a set of literature which attempts to explore the relationship between ethnicity, corruption and the perception of corruption. This set of literature is particularly relevant in the Guyana case, Guyana being a country characterized by ethnic pluralism and continual low-intensity ethnic conflicts. As in the other cases, there is hardly consensus on the relationship between ethnicity and corruption or the nature of the relationship. This notwithstanding, this set of literature is very instructive in the Guyana case as it highlights some issues which are not covered in the other literature but which are very relevant to Guyana.

Cerqueti *et al.* (2012) finds a nonlinear relationship between ethnic fractionalization and corruption. When a country is either ethnically diverse or ethnically homogeneous, there is a higher tendency for corruption than when ethnic fractionalization is intermediate. In the latter set of countries, they argue, opposing ethnic groups serve as checks and balances against the corruption by the leaders. Svensson (2000) suggests that foreign aid is associated with corruption but that this is most likely in societies with competing social groups especially countries with ethnolinguistic fractionalization.

As a supplement to the literature on the association of ethnic fractionalization and corruption, another set of literature seeks to explore the function of corruption in ethnically plural societies. While some researchers argue that corruption could actually lead to social cohesion in ethnically divided societies by overcoming elite cleavages and providing opposing groups with socio-economic value, another set of literature argues the opposite. Abueva (1966), for example, argues that corruption can aid in the national development and stability by serving certain institutional and

administrative needs. Huntington posits a similar thesis by claiming that corruption can help integrate alienated groups thus staving off violent conflicts. The functionality of corruption can be demonstrated in two ways using the Guyana case. In the first case, it is the high instances of corruption which effected the forging of a cross-ethnic coalition among the leadership elite which eventually led to democratic turn-over after 23 years of the rule of one party. After this change, however, persons are becoming aware that the tendency to get involved in corrupt practices is not restricted to one ethnic group or political party as was the view formerly, but that the behaviour cuts across ethnic groups and political parties. This could be used as a basis for a genuine cross-ethnic unity among the masses (instead of among the elites) out of which a genuine cross-ethnic leadership could emerge. It is in this sense that some writers posit the view that corruption could be socially functional.

## THE EVOLUTION OF CORRUPTION IN GUYANA

This paper joins the body of literature which highlights the significant role ethnic dynamics play in both fostering corrupt practices and heightening the perception of corruption in ethnically plural societies. It will be argued here that in Guyana, economic and political corruption stem from the same source. Whichever one takes predominance is a function of a combination of factors, namely the prevailing value system, the ethno-political dynamics and the occupational dynamics in the country. During the 60's socialism which places a lot of value on political power was the dominant ideology. Therefore political power became the most sought after currency. In the post-socialist era, economic and material resources became the most sought-after currency. And, this partly influenced the changing nature of corruption in Guyana. More importantly, however, both the nature and the intensity of corruption or the perception of corruption are fueled by the historically constructed ethnic and distributional dynamics in the country.



The subject of corruption in Guyana has not been subjected to any in-depth academic treatment. Apart from news items and political statements, there is hardly any material available to feed into an analysis of corruption in Guyana. This major difficulty notwithstanding, there are a few major works which deal tangentially with corruption while dealing substantively with other social, political and economic issues. One such major work is Hintzen's 'The Cost of Regime Survival'. This work postulates a dependency theory of corruption in plural societies. In its most simplified form, the argument is proffered that political survival in LDC's depends on the ability and willingness of the local political elites to protect the economic interest of two powerful groups, namely the metropolitan elites and the local elites, and this comes at the cost of satisfying the collective needs of society. Protecting the interest of metropolitan elites requires that the masses be mobilized around subjective factors such as race and nationalism. Mobilization around subjective factors is used as a means of distracting them from fundamental economic issues. Rather than focus their attention on the grip metropolitan elites have on the economy, the masses are preoccupied with more subjective issues. This explains ethnic conflicts in these countries. Corruption on the other hand could be explained by the need to satisfy the economic interest of the local elites. This is done through patronage and clientelism according to Hintzen (1989; 1985). While the above theoretical postulate goes a far way in explaining both ethnic conflict and corruption, there are some fundamental problems with these postulates which rob them of any general application. The first problem is of a philosophical nature. At the base of Hintzen's analysis is the abstraction of a *homo politicus* similar to the *homo economicus* who serves as the basis of classical economic analysis. Just as the *homo economicus* is principally concerned with the rational pursuit of his material needs, the *homo politicus* is concerned ultimately with the acquisition and retaining of political power for its own selfish needs. The social (in this case ethnic) environment within which these actors were socialized and brought up is hardly taken into consideration. This is why any patronage can only be interpreted as an attempt to cement their political survival

rather than to augment the comparative position of the ethnic group (or any other social group within which they find themselves) within the socio-economic network. The most, in terms of concessions, this viewpoint is willing to make is that whenever actors think beyond their own self-interest their selflessness is limited to their class and extends to no other social group they are part of. This viewpoint hardly sees it possible that other group identification could have equal if not greater effects on the actions of actors. The other problem with this postulate is that Hintzen sees identity, namely ethnic identity as subjective in the classic Marxist sense and as purely an outcome of elite manipulation. He doesn't view ethnic identity as a social fact with prolonged durability. Ethnicity, therefore is approached as a pure outcome variable with little to no analytic power.

Because of these errors, there are a lot of unanswered questions which cannot be answered within the framework provided by Hintzen. For example, why the masses is capable of either reflectively or unreflectively forgoing certain collective needs in order to keep their ethnic representative in power as claimed by Hintzen but the political elite unaffected by decades of ethnic socialization and acculturation seems only capable of personal interest? Why the influence of the metropolitan powers decreased during certain periods as a direct outcome of the masses opposition to metropolitan control of the economy if governance in LDC's is largely geared towards protecting metropolitan interest and manipulating the subjective needs of the masses?

Another interesting theoretical postulate is provided by Khemraj (2013). He uses the economic concept oligarchy to explain the behaviour of the Jagdeo regime. The ultimate goal of an oligarchy (a political and economic elite) is to control the economic space. The author attributes the emergence and persistence of the oligarchy to several factors. Firstly, he attributes the emergence of the oligarchy to the Marxist/Leninist principle of democratic centralism which was the guiding principle in the People Progressive Party/ Civic (PPP/C). This form of social organization is used as a means

of filtering out those persons who do not subscribe to the core ideology of the party and of limiting decision making to a small group of loyalists. Secondly, the oligarchy was empowered by the 1980 'Burnham constitution' which 'bequeaths significant powers to the President, making him immune to prosecution for wrongdoing committed in office'. Thirdly, the list system also serves to consolidate the oligarchy as membership in the government is largely dependent on a political selection process (which exacts loyalty). Fourthly, and most importantly, the oligarchy persists on account of the ethnic voting dynamics in the country. Because the electorate votes according to ethnic consideration as oppose to class or any other consideration, the oligarchy made up predominantly of the ethnic group with the numeric plurality, is kept in power in spite of the political degeneration and concentration of economic wealth which comes about as a result of this political formation. This oligarchic arrangement and ethnic voting dynamics make it possible for government officials to be able to transfer state resources (through government contracts and jobs etc. and even change laws) to politically connected individuals with impunity. Though the international political economy dimension is understandably missing from Khemraj's analysis, it is similar to Hintzen's in that both interpret the behaviour of the elites in purely self-interested terms and disregard the ethnic (collective) intentions of their actions. Ethnicity is only used as a factor exploitable and exploited by elites for their own self-interest, therefore any allocation to an ethnic group is interpreted as purely an attempt to keep that group minimally satisfied. This is why, although Khemraj accedes that the oligarchy in question exhibited behaviour different from oligarchies in other countries by its apparent disinterest in wresting power from the established business class, he fails to explain why this is so in the Guyana case.

Though not writing specifically about corruption and ethnic conflicts in Guyana, Menke provides the theoretical basis upon which this analysis of ethnicity and corruption in Guyana rests. Menke (2011), in agreement with Sankatsing (2007) argues that one fundamental difference between modern postcolonial nations and

other nations is the fact that in the former the state precedes the formation of the nation, while in the latter the nation is an outcome of the state. In the latter case the state is an outcome of the ideological and economic dominance of one group which is very successful in making its ideology the dominant ideology and in naturalizing its own privileges. The process of nation-building in these societies is based on a monocultural ethnic ideology using the power of the state. It is not only the relationship between state and nation which assumed this form, but also the relationship between state and class. In Western European societies of the 19th century the development of economic classes preceded the development of the state; the state therefore became the creature of a particular class with a particular class interest. Both of these relationships were reversed in the case of ex-colonies. With respect to the formation and purpose of the states in ex-colonies, the dominant view is that these states were established with the primary intent of managing the extraction of resources from these countries. The tasks of nation-creation and nation building were secondary if not non-existent. This resulted in the existence of states without fully developed nations or classes, thus inverting the usual relationship between states, nations and classes. These were, therefore, nations in transition in which the formation and consolidation of powerful groups were paramount to governance and nation-building (Huntington 1968).

This resulted in two very important socio-political and socio-economic tendencies in ex-colonies. In the first instance it created the conditions in which various ethnic groups attempt to imprint their ethnic image on the fledgling nation, and in the second instance it created the conditions in which each ethnic group strives to make itself the economically dominant group. At the center of both of these tendencies is the need to capture the relatively developed state after the exit of the previously dominant colonial powers (Despres 1975). The strength of Menke's theoretical position is that he moves away from the reductionism present in the other works and suggests that both class on one hand and race and ethnicity on the other hand could be used as analytic categories in

the analysis of certain social dynamics in the Caribbean. Though Menke (2011) limits his analysis to the construction of ethnic identity and the role of the state and society in this process, this paper, utilizing the said theoretical framework, aims to explain a specific manifestation of corruption and state capture in Guyana.

### ***Burnham, state capture and political corruption***

The classical definition of state capture calls attention to the way bureaucratic rule and formal procedures are manipulated by private firms in their attempt to influence state policies and laws in their favour (Hellman and Kaufmann 2001; Pradhan 2000). What differentiates state capture from other forms of corruption is that while in the latter case the intent is on the selective enforcement of already existing laws, in the former case it is on influencing the very formation of laws to protect the interest of influential private firms and companies. While the emphasis is usually placed on private firms and companies, Pradhan (2000) and Uzelac *et al.* (2003) highlight instances where other social groups such as ethnic and military groups are agents of state capture. In spite of the difference between earlier and later definitions, there seems to be a consensus in limiting the application of the concept to instances in which outside groups attempt to manipulate the state. This paper deviates from this consensus. It argues that in societies characterised by the principle of the separation of powers, groups or individuals within the formal state structure can and do capture the state, change rules and draft policies to benefit their own or group interest or further their own or group agenda. It is in reference to this latter phenomenon that the concept is being applied in this work. At the beginning of the independence period many governments in the newly emerging independent states in the Caribbean and Africa were animated by the need to construct a new nation free from the political, economic and ideological shackles of colonialism (Danns 1982). It was no different with Forbes Burnham in Guyana. After Independence, and as soon as he was free from the restraints of the

coalition partner, the United Force (UF), with whose assistance he was able to gain political power, he set out on the demanding task of nation creation. His nation creation thrust had some important components, namely, nationalisation, nationalism, cooperativism and the self-sufficiency through import substitution (Rose 2002). His approach to nation creation was distinct from the two other political parties at the time. Though there were mixed reactions to his development policies (Premdas 1978; Thomas 1983), what is important to note here, however, is that in pursuit of his vision of a Guyanese nation, he was forced to involve in state capture for two specific reasons. First of all, the transition from a colonial government to an independent one does not immediately assure a loyal and compliant bureaucracy which would bend willingly to the policy direction of the new leaders. Danna (1982) outlines some of the dynamics created by this transition and some of the responses by leaders of the independent nation. Secondly, because the ethnic dynamics in the country did not afford him the privilege of gaining power as a standalone party let alone of making any major legislative changes, Burnham had very little options available to him. Beset by such scarcity of options, he chose the one which entailed consecutively rigging elections to both keep himself in power and to give himself the two-third majority needed to make any legislative changes.

His attempt at state capture started with the 1968 rigging of elections (Commonwealth Secretariat 2001); it was the 1973 elections, however, which gave him the parliamentary power necessary to cement his position. While there is limited actual evidence of rigging the 1973 election, the outcome of the election, particularly with respect to votes received by the ruling party deviated massively from all the elections before 1973 and after 1992 when free and fair election was re-introduced in Guyana. In this election, the ruling party copped two thirds of the votes cast which gave it legislative power to pursue Burnham's task of nation creation. This two third majority seat in the National Assembly was engineered so that he could make the constitutional changes that could give him the power to subject the other organs of state to his

will and to implement his programmes. As part of the legislative changes Burnham removed the office of the Prime Minister and established himself as the Executive President thus blending components of a Westminster system with a presidential system. He went on to give himself immunity from any criminal and civil suit while in office. He also gave himself power over the public service and the ability to appoint and remove persons from key positions.

“He hand-picked his judges and indicated to them what decisions to give; he controlled the media, trade unions, schools, airport. He dismissed public officers without cause. Public officers who wanted to be certain of keeping their jobs, or were looking for promotion often spent their weekends working on a government coconut estate.” (Gibson 2003).

Another bold move in the direction of state capture is the Declaration of Sophia which promulgated the principle of party paramountcy thereby reducing the government to the party serving as one of its executive arms (Burnham 1974). (See Danns 1982; Rose 2002 and Thomas 1983 for a list of strategies employed by Burnham in his quest to wield absolute control over the state and country).

Burnham's attempt at state capture was dictated by the exigency of the prevailing situation. First of all in a society divided both horizontally and vertically along ethnic lines, it was highly improbable that he would have been able to attract a large cross-sections of the votes of any other ethnic group than his own. The numerical strength of his ethnic support was, however, not sufficient to land him the presidency. To gain power therefore, it was necessary to form a coalition with another group which was exactly what happened when the People's National Congress (PNC) formed a coalition with the United Force (UF) in 1964. Governing by means of a coalition calls for many compromises and hardly results in any radical shift away from the status quo. In some cases it can lead to the enhancement of the status quo, as it has been found

that during the coalition government of 1964-1968, against the socialist inclinations of the larger party in the coalition, the Portuguese, represented by the smaller party in the coalition, were able to augment their landholdings (Jameson 1978; Constantine 2016b). The constraints and discomfort created during this period, no doubt necessitated the rigging of the election if Burnham and his party intended to maintain power. Furthermore, to carry out some of the other aspects of nation creation Burnham was forced to capture the state in numerous ways. Apart from state capture there were also evidence of financial corruption during the Burnham years. This fact notwithstanding, one get the sense that the financial aspect of corruption was secondary to, and was an unavoidable outcome of, political corruption. The main thrust of the Burnham Government was nation creation. The ethnic dynamics in the country however, made rigging the elections as the most promising option to maintain power and the concentration of power as a necessary step in order to protect the Government and leaders from any challenges. Survival in such a context necessitates the political loyalty of the bureaucratic leaders and the political leaders. This loyalty, however, comes at a price, that price is a certain amount of latitude for these leaders to be able to enrich themselves at the expense of the state and people. Hintzen (1989) dealt comprehensively with the dynamics of patronage and clientelism under the Burnham's regime but said little about the informal and indirect means by which certain leaders in the regime sought to enrich themselves. During the late 1970s and early 1980s period the level of corruption reached such levels that the government was forced to appear as if it was adopting an uncompromising policy vis-a-vis financial corruption (Danns 1978). These lukewarm attempts notwithstanding, financial corruption was one of the cost attached to regime survival.

### ***Jagdeo, state capture and corruption***

Another historical period where corruption or the perception of it



was very high was during the presidency of Bharrat Jagdeo, between 1999- 2011 (and continued unabated under the two-year reign of Donald Ramotar, Jagdeo's successor). The nature of corruption during this period, however, took on a generally different form. It will be argued here that the form corruption took on during this period is partly owed to the ideological shift in the international political sphere, but most importantly to the change in the ethno-political dynamics domestically. There were three important dynamics at play which set the stage for the emergence of a semi-predatory approach to government which was intent on transferring resources primarily to a small ethnic elite and secondarily to a larger ethnic masses.

In the first instance, by the time the PPP gained power in 1992, the intensity of the socialist and postcolonial ideologies had subsided as a result of the global triumph of neoliberalism. This global ideological shift was accompanied by shifts in the practical approach to politics and nation building in many ex-colonies. The most characteristic was the shift from planned economies prescribed by socialism to open market economies prescribed by neo-liberalism through the specific institutional mechanism of structural adjustment. The practical outcome of this shift at the political level saw political leaders' role being limited to managing the societies and economies in steady state and implementing only those changes which are necessary for the smooth and unhindered functioning of the market. The state was therefore stripped of any responsibility for nation creation and nation building. Any attempt at a coordinated and focused approach to nation building in this period would be solely a function of the internal motivation of the ruling elites than any global third world ideological pressure. The point being made here is that the post-1992 government was under no pressure to pursue a well, planned, coordinated and focused development plan.

Secondly, with the re-introduction of free and fair elections in 1992, the basis was set for the party with the ethnic plurality to form the new government. As long as this party was able to win a small

margin of support from other ethnic groups, it was highly likely that it would remain in power for an extended period of time. There was therefore no need to rig elections and engage in the level of political corruption associated with the previous administration.

Thirdly, the fact that during the previous regime, the African Guyanese elite had consolidated itself as the bureaucratic elite administering state capitalism (Thomas 1983) and the African Guyanese masses were primarily the working class peopling the bureaucracy, the new elite could not use the traditional bureaucracy as the principal means of redistributing resources to its supporters and main ethnic constituency.

These three factors were instrumental in determining the form of and relationship between state capture and corruption in the post 1992 period. The combination of these factors resulted in a socio-political environment conducive to exploitation, corruption and capture. The rigging of elections in the previous period engendered the consolidation of the ethnic support of the PPP constituency behind the party; it also offered the PPP another platform upon which it galvanised its support base. Now with the claim that they have been cheated out of power by the imperialist who have backed Burnham and the claim of continuous rigging of elections to keep them out of power, it was easy for the PPP to procure and secure the perennial support of its ethnic constituency. This historical narrative gave the PPP twenty three years of uncritical ethnic support. During this time the government under the PPP morphed into an elected oligarchy (Khemraj 2013). This description borrows somewhat from Zakaria's concept of an illiberal democracy (Zakaria 1997). The key argument here is that though the government was elected in a free and fair process, its behaviour resembled that of an oligarchy which sought to control and dominate the economic space by transferring state assets and wealth to close friends and family while creating economic hardships for those outside that small ethno-political network. It functioned as a semi-predatory state which was more intent on giving rise to what Jagdeo himself called, a Newly Emerging Private Sector (NEPS), a very apt acronym since

this sector benefited massively from the nepotistic relationship between itself and the government.

In addition to contributing to the political degeneration of the party in power, the ethno-political loyalties by the ethnic masses to their respective elites also affected the formation and development of a genuine civil society a necessary social arm in the fight against corruption. The society therefore lacks common social will - tastes, values, ethics which cut across ethnic lines. Ethnic demands have taken the place of social demands. Norton (2007) highlights the important functions of a civil society in any modern society but attributes its absence in Guyana to the political dominance of parties with deep socialist leanings which have historically dominated both the social, political and economic spheres of the society. While this assessment bears some validity, the absence of a civil society could be best explained using the plural society models of Furnivall (1956), Smith (1984, 1974), Despres (1975), and Beckford (1999). All these authors pinpoint the lack of a common social will as an inherent feature of ethnically plural societies. Civil society in the Guyana case has been ethnicized even before it was politicized during the period referred to by Norton (Edwards 2016). In Western societies, there is a bourgeois class and a bourgeois public sphere strong enough to discourage certain unlawful acts by Government officials. However, in developing societies both of these institutions are subservient to the state. The process of class formation in these societies have been left uncompleted.

The lack or ineffectiveness of social demand creates a situation in which criticisms usually come from the side outside of executive power and those criticisms can and are usually dismissed as ethnically and politically motivated. And, this is usually the case because the small pool of critics usually change whenever executive power changes hands although the form and approach to government remains the same. Political leaders are usually aware of this fact, so they ignore public criticisms because invariably those criticisms emanate not from their own ethnic support base but from the other political faction and their followers. On the other hand the

supporters of the party in power are usually silent in the face of some of the most egregious acts by its ethno-political leaders. This creates a situation similar to what the economists refers to as a moral hazard. Under Jagdeo, The Government became the second most corrupt in the region according to the CPI Index provided by Transparency International. Although the CPI measures perception, those perception were fueled by a series of questionable and glaring acts by the Government.

Another contributing factor to the nature of corruption under Jagdeo has to do with the nature and configuration of the occupational structure generally and the bureaucracy specifically. When the PPP assumed control of the government in 1992, it inherited a bureaucracy dominated on all levels by Afro-Guyanese who were the main supporters of the then main opposition. He, therefore, could not use the bureaucracy to benefit his ethnic/political constituency as any large scale reconfiguration of the public sector could have resulted in intense civil conflict because it would have been threatening the main economic channel for Afro-Guyanese. Notwithstanding, the bureaucracy could not have been left entirely in place, it being the official channels through which government policies are executed. The strategy employed by the PPP was to cleanse the top tier of the bureaucracy by removing those professionals which assume the positions under Hoyte and replacing them with persons loyal to the PPP's agenda (Khemraj 2013). These persons were invariably of one ethnic group. This party became so bold and glaring in its ethnically biased approach to governance that at one time there were absolutely no Afro-Guyanese serving in the diplomatic service (Kaieteur News 2011). While the above strategies were necessary and sufficient for state capture, they were not sufficient, though necessary, for class formation through transferal of state assets and resources. Class formation involves the usurpation of large amount of economic values and resources too large to be justifiably transferred directly to public officials without raising alarm. This amount, however, can be transferred to private individuals who have legitimate businesses or who establish businesses just for the purpose of benefitting from

this transfer. Unfortunately, apart from a few published studies of corruption and state capture under the Jagdeo-led PPP/C (Bulkan 2014; Bulkan and Palmer 2008) corruption during this period is a largely under examined phenomenon. This notwithstanding, the private news media stands as a good source of information on financial corruption and class formation under Jagdeo. In fact one of the dailies has a section labeled 'The Heist of Guyana' which lists a number of acts by the government which either borders on corruption or serves as blatant examples of corruption (Kaieteur News undated). These include, among other acts, the distribution of the Guyana airwaves to a few friends, family and party supporters; the sale of a complex on 18.9 acres of land in a prime industrial area in Guyana for significantly less than it took to renovate it immediately before; the granting of multi-million dollar contracts to contractor with absolutely no history of contracting experience (the Amaila falls access road stands as a glaring example) (Kaieteur News 2014). These acts and others stand as examples of the transference of state resources with the intent of promoting the emergence of his NEPS, a parallel, subservient business class.

***Table 1: Instances of alleged corruption under Bharrat Jagdeo's Regime***

The Berbice Bridge Project - In 2007 the then government decided to construct a pontoon bridge over the Berbice river similar to the bridge constructed decades ago over the Demerara river. Instead of financing the project on its own or by means of aid from multinational donors, the government opted to pursue a Public Private Partnership Agreement with two local companies. The cost of the project amounted to USD \$38m. The contractual agreement between the Government of Guyana and private investors with close connections to then President, Bharrat Jagdeo, saw companies (namely Hand-in-Hand Trust and The New GPC) which contributed a collective 5% equity in the company enjoying 50% ownership. Renowned regional economist, Clive Thomas, had the following to say about the contract "This contract agreement is clearly designed to make just a handful of people filthy rich for the rest of their lives at the expense of the poor. It is a despicable contract which must be changed. The contract agreement and the implications for our taxpayers can only be described as criminal and I will insist that the Shareholder Agreement be made public" (Wilburg 2015a; 2015b).

Granting of Radio Licenses to Friends and Political Supporters - in 2011, months before Jagdeo exited office, he distributed five radio frequencies to his close friend, Bobby Ramroop, 5 frequencies to his party, the PPP/C and 5 frequencies to a sibling of a sitting minister. The other five frequencies were distributed as single frequencies thus limiting their reach. Established media entities which had outstanding applications for radio frequencies were denied these frequencies (Kaieteur News 2014). Many in Guyana including the Private Sector Commission (PSC), the Guyana Press Association (GPA) and the Guyana Media Proprietors Association (GMPA) expressed concerns about the manner in which the frequencies were distributed as it went against criteria laid down by the

Broadcasting Act (Kaieteur News 4/29/2013).
Granting of complex e-Gov project to former president's son - In 2012, the son of former President, Donald Ramotar was awarded the management of a project to lay 560 kilometers of fibre optic cable as part of the Government's ICT Initiative. The project became bungled as the Project Head had absolutely no experience with such massive complex projects before, and another company was awarded the contract to repair the damages done by the former President's son. The cost of the entire project was US \$32 million dollars (Ram and McRae 2015).
Amaila Access Road Project - In 2010, the Government of Guyana awarded a contract to a company Synergy Holding owned by Makeswar 'Fip' Motilall to design and construct a 150 miles access road through virgin forest for the Amaila Falls project. The total cost of the project was USD \$15.4 million. The problem was that the company had absolutely no experience with building. Despite large sums of monies being advanced, the company was unable to complete the project and to meet agreed upon deadlines. Road building equipment had to be bought from the sum advanced as the company had absolutely no road building equipment. Eventually, the project had to be re-awarded to another company in 2012 under the Donald Ramotar regime (Gill 2010a; 2010b; Kaieteur News 2012). The owner, Makeswar Motilall, was claimed to have had very close relationship with former president, Bharrat Jagdeo (Khemraj 2013).
Roger Khan saga - The government under Bharrat Jagdeo was accused of allowing the drug trade to flourish and of having very close connections to persons with apparent close connection to persons who were dominant players in the illicit economy. One such case is the case of Roger Khan. Khan was a known drug lord who was eventually nabbed by the United States after a decade or so reign of terror in Guyana. Before being nabbed in the US, Khan was used by the Government in its alleged attempt to fight crime in Guyana. To assist him in his work, high tech equipment which could only be sourced by governments were bought by the government and delivered to Khan to assist him in his work. During Khan's reign it is alleged that over four hundred Afro-Guyanese youths became victims of extra judicial killing by the hand of what was then called a 'Phantom Squad' operated by Khan. In exchange for his contribution, the government turned a blind eye to Khan's illegal operation in Guyana (Vincent and Klein 2015).
Queens Atlantic - Against the laws of Guyana, very attractive concessions were granted to an alleged close friend of the former President Bharrat Jagdeo in his bid to buy over prime real estate from the Government. "The concessions were granted to Queens Atlantic – owned by a good friend of the President – without regard to their legality. The government used its majority in Parliament to amend the rules in order to bring the concessions in line with the law. The concessions, furthermore, were initiated without open bidding and a business proposal from Queens Atlantic to support its purchase of state-owned assets." (Ram 2008).
Forestry Management: Bulkan and Palmer (2008) argue that grave illegalities and corruption are allowed to take place in the forestry sector (not necessarily dominated by its own ethnic group) as it is connected with trafficking in drugs, guns and humans and money laundering (dominated by its own ethnic group) which cumulatively account for a large part of the economy (Stabroek News March 2006).

## DISCUSSION

From the analysis presented above, this paper makes the claim that corruption and the perception of corruption in Caribbean countries take place against the backdrop of a retreating colonialism. The formal displacement of the colonial powers in 1966 created a power vacuum which needed to be filled. The struggle to fill this vacuum were fought out by groups which by then identified themselves through racial and ethnic lenses. Political power and the control of the formal state machinery were therefore used as a means through which these competing groups sought to solidify their collective position, both culturally and economically. In the first instance corruption (financial) was an unavoidable consequence of state capture while in the second instance state capture was only necessary as a means of transferal of unimaginable amount of wealth from the state to private, ethnic elite. It follows the evolution of corruption in Guyana highlighting how the nature of corruption changes when the nature of the ethno-political dynamics in the country changes. Knowledge of the nature and evolution of corruption is important if we intend to address it in any meaningful manner. Uncritically applying prescriptions which work elsewhere may or may not work in the Guyana (and countries like her) situation. This level of uncertainty as to the effectiveness of applied solutions can have negative impact on the populace; it can spread a high level of cynicism and disinterestedness which in turn is detrimental to the development of democracy. Countries like, Guyana, therefore are forced to be very clinical and methodological in their attempt to tackle their social problems. Intervention strategies should not be uncritically imported from elsewhere, but must emerge from a careful and thorough study of the nuances and peculiarities of the local situation. This paper is an attempt in that direction specifically with regard to corruption and the perception of corruption. The recommendations being discussed and postulated here are outcomes of the analysis of specified types of corruption in the Guyanese social context.

Another important point being made by this paper is that the nature

of corruption is largely determined by the prevailing ethno-political dynamics of the time. An in depth analysis of the dynamics of the time could therefore provide some insights into the likely evolution and outcome of corrupt practices by political leaders. From the historical analysis, the induction could be made that while the current regime exists in the a socio-economic environment similar to the immediate previous regime which give rise to high levels of financial corruption, it is also beset by the same socio-structural constraint of the Burnham's regime which give rise to political corruption and state capture. Therefore, while there is an opportunity for a different approach to politics, as will be argued, there is also the clear and present temptation to engage in both types of corruption expounded on in this paper.

The current government is formed by a coalition made up of one large party with an undeniable racial/ethnic support base of Afro-Guyanese; a medium size party which is supported primarily by a small multi-ethnic cross section of the population comprising both Afro-Guyanese, Indo-Guyanese, and persons of mixed ancestry; and some smaller parties which have never been able to win any seats in the National Assembly. The coalition won the 2015 elections by a slim margin of approximately 5000 votes which translated into a one seat majority in the National Assembly against a party which held the reins of government for the preceding 23 years primarily on account of the numerical advantage of its Indo-Guyanese ethnic support base. This means that the current government rest upon uncertain grounds similar to the PNC under Burnham in 1964. This uncertainty could be either good or bad for the development of Guyana depending on the inclinations of the leaders, the level of public engagement by citizens and the effective fulfillment of the news media and civil society generally of their watchdog role. On one hand, the uncertainty could force the political leaders to pursue in a satisfactory manner the fulfillment of their election promises in order to inspire confidence in those who voted for them in the 2015 elections and to alleviate the fears of an additional few who had not supported them in the said elections. This is with the explicit aim of widening the margin of victory and lessening the electoral



uncertainty. On the other hand, there is also the likelihood that the situational dynamics would pressure the leaders to seek to accumulate as much financial resources as possible in case of an unfortunate reversal of electoral fortune. Lastly, but more importantly, the uncertainty could lead to attempts at rigging of elections if any breakdown in relationships of the coalition partners necessitate the facing of the electorate as single parties. The breaking down of relationship between the coalition partners, however, seems unlikely compared to the 1964 coalition as there is no sharp ideological difference between the major parties in the coalition. Moreover, the lack of any provision for post-election coalitions in the constitution will definitely serve as a deterrent to the parties in the coalition competing separately at the next elections. While the political logic attached to the need to increase the electoral margin of victory is a compelling logic, this no doubt competes with the need of ethnic elites to secure and accumulate as much economic goods necessary to be able to enhance the position of the ethnic collective in the socio-economic stratification system. The pressure of the latter logic has been historically a more significant than the pressure towards good governance. All these possibilities could become significantly enhanced with the eventual monetization of the recent oil finds. This, I'm convinced, necessitates in depth studies into the social, economic and political implications of the recent oil finds in Guyana.

### ***What can be done?***

Any simple correlational analysis of the complexity of economies and the perception of corruption would show that the perception of corruption is highest in countries with less-complex economic structures. This can mean one of two things or a combination of both. It could mean, as argued by Constantine (2016a) that developed countries (countries with more complex economic structures) change their laws to accord with the interest of the powerful so there is no need for the powerful to attempt to accumulate economic goods

in an extra-legal manner. Or, it could mean that, according to Khan (2006, 2004) in developed countries the opportunities to make money outside the political or public sphere is far greater thus lessening the need to engage in corruption and that in developed countries institutions work better because they can be financed appropriately. Or, it could be a combination of both. While on the surface of things the above theoretical postulates might seem at odds with the one proffered in this paper, a deeper analysis would show that in the first instance where it is claimed that in developed countries the 'rules of the game' are changed to accord with the interest of the dominant class, there is the presupposition that classes have already become sufficiently crystallized for there to be a dominant class. It means that the period characterized by groups struggling to establish themselves as the dominant group has given way to a period in which one group has already emerged the victor. In this case laws and institutions have already been put in place to restrict competition and mobility by any other means except through normatively defined legitimate means. While pursuing economic development is the avowed aim of most developing countries, to say that we cannot deal with corruption until a sufficient level of economic development is achieved leaves policy-makers and citizens helpless in the short and medium term in the face of rampant, sometimes, blatant corruption by elected officials. I am of the view that if a very comprehensive typology of corruption is developed and the causes and consequences of each types are studied scientifically, then countries will be able to tackle effectively some types of corruption in some ways in the short and medium term thus lessening the overall instances of corruption, and by extension, the perception of corruption.

This article deals mainly with corruption among the political elites in plural societies and it explains the nature of that corruption and the causes and consequences. The recommendations put forward here, therefore, do not extend to other forms of corruption nor are they intended as a final solution. Moreover, they are specific to Guyana and do not extend beyond the borders of Guyana to countries which might be grappling with the issue of corruption. Three main

contributing factors have been highlighted, namely ethnic pluralism, weak institutions, and the lack of enabling legislations. The recommendations proposed here will therefore be directed towards resolving to the extent possible some of the issues in these three areas. As a long term solution, the political leaders need to focus on an appropriate approach to development which involves increasing the economic pie through structural transformation and forward and backward linkages in the economy which would create more legitimate avenues of wealth accumulation and social mobility. It would also create new areas of economic activities thus differentiating the labour force. Development will increasingly lessen the necessity for the direct role of the state in the economy (Brownsberger 1983). This is different from the virtuous circle theory which posits a circular effect from economic growth to better institutions to further economic growth.

Legislative changes to encourage post-election coalition which would encourage the formation of smaller parties with interests which are not necessarily ethnic could go a far way in dampening the sharpness of ethnic conflicts in plural societies. This could lead to the shift from ethnicity based issues to other interest-based politics as occurred in Nigeria (Brownsberger 1983). Although it is a widespread view that third parties in the Caribbean both perform poorly and are short lived, the Alliance for Change (AFC), one of the parties which make up the current coalition, performed impressively well at all elections since its inception, and in the 2013 election it copped as much as seven seats in the National Assembly, the highest ever won by any third party in Guyana. This serves as an indication that voters are starting to despise the lack of voting options and the post-election contempt and disregard displayed by the two larger parties. A third party will not be able to pull much weight and exercise any influence if it is constrained by the constitution. Constitutional changes are therefore needed to encourage post-election coalition. This recommendation is in line with the analysis made by Khemraj (2013), who pinpointed the Burnham constitution as instrumental in aiding the elected oligarchy under Jagdeo.

A generally agreed upon solution to corruption is the establishment of anti-corruption, good governance, and oversight institutions. The Guyana case, however, has shown that these tend to become victims of the same problems they were established to solve. The Ethnic Relations Commission, the Ombudsman Office, other established commissions are either underfunded, not allowed to carry out the work for which they were established, or they become themselves victims of state capture. Although these institutions are vulnerable to capture and are usually toothless in terms of prosecution, the outcome of the recent election shows how the perception of corruption can galvanise popular support against the guilty parties leading to democratic turn-over. So even if they merely serve the function of highlighting malpractices by Government, that can be a critical function which could additively lead to changes and development. To minimise the economic strain these institutions can have on the economy and thereby enhance the prospects of political and civil society buy-in along with the effectiveness of the institutions, one solution against the proliferation of non-functioning institutions is generalisation as opposed to the specialisation of roles which are found in developed societies. Developed societies can afford to fund highly specialised institutions because, in many cases, the level of specialisation is consistent with the level of development and income. Conversely, in developing countries there is a tendency for the division of social labour to outrun the division of economic labour thereby leading to dysfunctional institutions (Riggs and MacKean 1964). One institution which is very necessary in developing countries is the enhancing of asset declaration laws and the full functioning of an independent institution answerable to parliament and funded directly out of the national coffer rather than by the Executive. Gokcekus and Mukherjee (2006) found that these laws could be effective as a deterrent of corruption if they come with a threat of prosecution for those who fail to obey the law, otherwise, they are not too effective.

Lastly, in the area of ethnic conflicts, I agree with Cerqueti *et al.* (2012), Collier (2001) and Alesina *et al.* (2003) that it is difficult to draft policies to deal with issues of ethnic fractionalization. I

however am aware that if we unpack ethnicity, we will be able to grasp its dimensions and draft policies to tackle issues relating to those dimension (Edwards 2016; Danns 2014). For example, Edwards (2016) found that there is a geographic/spatial dimension to ethnic fractionalisation in Guyana. Policies could be crafted which seek to progressively tackle this problem. One such policy is a national housing policy. Within the past decade Guyana has embarked on a noteworthy housing policy which distributed house lots based on a lottery system. This approach to house lot distribution has the potential to randomise the ethnic distribution of citizens in the new housing areas thus removing one dimension of ethnic fractionalization in Guyana. There needs to be an empirical study of how the land distribution so far has led to the randomisation and enhancement of the interaction of persons from different ethnic groups and how that has affected ethnic sentiments in those areas.

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## **MOTIVATION AND DOPING; A META-COGNITIVE FRAMEWORK FOR UNDERSTANDING ATHLETES' ATTITUDE AND BEHAVIOUR**

Hector Edwards  
Diana Gobin

### **ABSTRACT**

*Numerous scandals in relation to doping in major sport disciplines – athletics, cycling and swimming, continue to make news headlines on a consistent basis. The punitive approach undertaken by the World Anti-Doping Agency (WADA) has not resulted in a significant change in attitude and behaviour towards doping but has instead influenced an evasive attitude and behaviour among athletes, to continue the undesirable doping practice. A paradigm shift is necessary to identify the potential behavioural factors influencing athletes to dope so that proactive actions can be taken to reduce the likelihood of using performance enhancement drugs during particular stages of the athlete's sport lifecycle.*

*The framework presented in the research is a synthesis of three motivational perspectives: equity theory, hierarchy of needs theory, and intrinsic and extrinsic motivation theory, to provide a better understanding of the cognitive issues and motives influencing athletes to use performance enhancement drugs in sports.*

**Keywords:** Anti-doping, equity theory, hierarchy of needs theory, intrinsic and extrinsic motivation, performance enhancement drugs.

## INTRODUCTION

The World Anti-Doping Agency (WADA) formulated in November 1999 has been the premier institution in the fight against doping in sports. WADA's punitive approach to ban performance enhancing drugs (PEDs) in sports, seemingly with the desire to enhance or improve the image of sports, has left a gap in fulfilling the needs of the most important stakeholders in sports - the athletes. WADA has adopted a reactive approach to dealing with the issue of doping in sports by punishing athletes if caught. This approach has influenced an evasive attitude and behaviour among athletes who are willing to take the risk of doping to achieve a higher level of performance and hope not to be caught. Thus, the practice of doping continues to permeate major sport disciplines.

Brewer (2002) argued that advances in sport-medical science and the hyper-commercialization of sports are also contributory factors to the doping phenomenon. Pharmaceutical companies are producing different types of masking drugs, which may enhance athletes' performance but are not yet detectable in drug tests. Added to this, some pharmaceutical companies pay endorsement fees to athletes or provide sponsorships. The commercialization of sports whether endorsement deals or sponsorships, influences athletes' attitude and behaviour to perform at a consistently high standard including breaking records. Former professional cyclist, Rik van Steenbergen (Brewer 2002, 284) posited that "there are no such things as supermen," and doping is necessary if athletes are obligated to be fresh each time they compete (Brewer 2002). An athlete is more susceptible to doping when faced with a significant amount of PEDs on the market and influence from sponsors, athlete support personnel (ASPs) and others stakeholders to consistently perform at high standards. Anything short of a high performance from athletes is considered unworthy to spectators and sponsors.

### ***Background of Athletes***

Athletes come from all aspects of life and various socio-economic and

socio-cultural backgrounds in their quest for success. The level of success desired by an athlete varies from individual to individual and from country to country, depending on the opportunities available. Many athletes have sacrificed other social activities and even education, to concentrate on success in sports. Additionally, many top athletes in various communities have come from low income families, and as such they were determined to maintain a high performance in sports as a ticket out of the poverty/low income lifestyle.

### ***Framework***

To be effective in the fight against doping in sports, understanding the combination of motivational factors influencing the attitudes and behaviours of an athlete to use performance enhancing drugs (PEDs) during particular stages of the athlete's sport lifecycle should be considered in policy formulation done by the World Anti-Doping Agency (WADA). A meta-cognitive needs framework was developed to provide a better understanding of the deviant behaviour of athletes in pursuit of higher performance in sports. The framework synthesizes three motivational theories: equity theory, hierarchy of needs theory, and intrinsic and extrinsic motivation theories. This content-based perspective of motivation categorizes higher-level needs as intrinsic, while lower-level needs are considered to be extrinsic in nature (Bright 2009).

## **MOTIVATION**

Athletes are motivated to do drugs as a result of a need, which can be as a result of a "physiological or psychological imbalance" (Luthans 1995, 141). The intensity of the drive to use PEDs is determined by the incentive to be achieved, which will ultimately alleviate the need. Once that need has been satisfied, another physiological or psychological deficiency will emerge (Maslow 1943). "Although psychological needs may be based on a deficiency, sometimes they are not," as some may induce an athlete to increase

the amount of stimulation (Luthans 1995, 141). Various theorists have tried to understand the cycle of needs that an individual passes through during their life, with Maslow and his Hierarchy of Needs Theory, being one of the earliest of behavioural scientists. He was of the opinion that “the strongest ‘felt needs’ determine behaviours of individuals at given times” (Iguisi 2009, 142). Motivation is seen as the force that directs an athlete’s behavior (Perry and Porter 1982; Wright 2001; Steers *et al.* 2004), as well as the persistence and intensity of their actions (Wright 2001; Steers *et al.* 2004), so as to satisfy specific needs. The motive or drive of an athlete contributes to both acceptable and unacceptable behaviour, since “motives often affects a person’s perception, cognition, emotion, and behaviour” (Reiss 2004, 179). Motives represent what the individual wants or expects from their actions (Wright 2001).

A careful analysis is needed of the influences on athletes’ attitude and behaviour to use performance enhancing drugs (PEDs) during athletes’ sport lifecycle because they can be motivated by health concerns, performance enhancement and/or social norms (Bilard *et al.* 2010). Another motive as highlighted by Frederick-Recascino and Schuster-Smith (2003) was the environment. The environment in which the behaviour takes place can influence the type of motivation at a particular time or period. Frederick-Recascino and Schuster-Smith (2003) describe a highly controlling environment as one that consists of many rules and sanctions, which limits an athlete’s autonomy and in turn facilitates an external locus of causality. An environment where threats, deadlines, directives, and competition pressure exist can undermine the intrinsic motivation of individuals, as they are perceived as controllers of their behaviour (Ryan and Deci 2000). Autonomy provides the environment for people to feel that they are in control of their actions and give them the satisfaction of accomplishing a task due to their own initiative as well as competence. According to Ryan and Deci (2000, 54) “orientation of motivation concerns the underlying attitudes, goals that give rise to action-that is, it concerns the why of actions”. The ‘why’ can be looked at based on the factors or reward structures that influence the behaviour of an athlete within a given setting. The



actions of athletes can be influenced by internal gratification or external compensation for the desired outcome. Figure one shows a meta-cognitive needs framework which synthesizes three motivational theories: equity theory, hierarchy of needs theory, and intrinsic and extrinsic motivation theory to determine the influences on athletes' attitude and behavior. A brief explanation of each theory follows the framework and then a discussion of the framework based on the stage of the athlete's sport lifecycle.

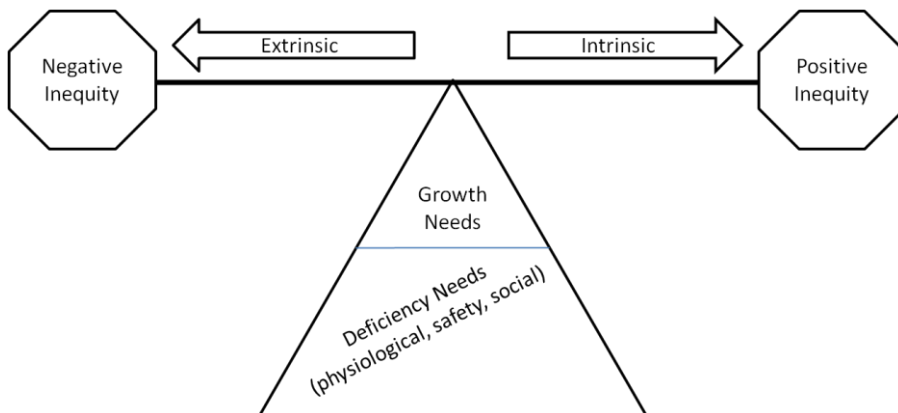


Figure 1 – meta-cognitive needs framework (Edwards and Gobin 2016)

### ***Extrinsic/Intrinsic motivation theory***

Deci (1972, 113) posits that “a person is intrinsically motivated if he performs an activity for no apparent reward except the activity itself. Extrinsic motivation on the other hand, refers to the performance of an activity because it leads to external reward.” Therefore, the reward derived by an athlete from activities will determine whether the type of motivation influencing his or her behaviour is intrinsic or extrinsic.

### ***Hierarchy of needs theory***

Maslow was of the opinion that as individuals develop, they prioritize which group of needs are to be fulfilled (Steers *et al.* 2004) in a hierarchical manner (Kolltko-Rivera 2006). He also posited that

the first three needs are deficiency needs, while the upper two are growth needs (Wahba and Bridwell 1976; Steers *et al.* 2004). Maslow was also of the opinion that an individual's needs could be grouped, and that these needs will fall under the various categories, progressing from the lowest to the highest (Maslow 1943; Iguisi 2009). The lower level needs identified by Maslow were physiological, safety/security, and social needs while the higher level needs were self-esteem and self-actualization needs.

### ***Equity Theory***

“Justice is a function of the proportionality of outcomes to inputs of the person and comparison targets” is the central assumption of equity theory (Van Yperen 1997, 318). However, the conclusion that there is inequity does not have to be real; it is the individual's perception that matters, which ultimately affects their behaviour. “The theory suggests that when individuals find themselves in an inequitable situation, they have several options to cope with this lack of reciprocity” (Van Yperen 1997, 318). The actions that can be taken by the individual include “restoration of actual or psychological equity, altering the comparison target, and leaving ‘the field’ (i.e. dropping out)” (Van Yperen 1997, 318). Inequity can be either positive or negative – mismatches which favour the individual or the comparison others, respectively” (Disley *et al.* 2009, 57).

## **ATHLETES SPORT LIFECYCLE: MOTIVATION AND DOPING**

There are three stages of an athlete's sport lifecycle; the initial stage, the competitive stage and the elite or professional stage. Table one below highlights the stage of the athlete sport lifecycle and the needs influencing their attitude and behaviour at each stage. Each stage and the needs or motive influencing an athlete's attitude and behaviour will be explained in the discussion that follows.

Table 1: Athlete sport lifecycle and needs influencing attitude and behaviour

<b>Sport Lifecycle Stage</b>	<b>Hierarchy of Needs</b>	<b>Equity theory</b>	<b>Intrinsic/Extrinsic motivation</b>
<b>Initial stage</b>	Lower level needs	Felt positive inequity	Intrinsic
<b>Competitive stage</b>	Lower level needs	Felt positive/negative inequity	Intrinsic/Extrinsic
<b>Elite/Professional stage</b>	Lower level needs	Felt negative inequity	Extrinsic

### ***The Initial Stage in Sports***

The motives for persons initially participating in sports varies from athlete to athlete. Some athletes would have started sports for the challenge it offers them, while others for the skills it allows them to develop, and some for the pleasure that it provides. Such motives can be seen as intrinsic in nature as they are controlled by the athlete, who will determine how challenging they would like the activity to be, or how much skill they are desirous of achieving. Intrinsic motivation has been defined by Pelletier *et al.* (1995, 36) as “performing an activity for the pleasure and the satisfaction that one experiences while learning, exploring, or trying to understand something new”. The extent of the activity is hence self-determined, which is an important factor in determining the type of motivation influencing the athlete’s behaviour. Casual or non-competitive sports participation based on these motives is also unregulated, and as such to what degree and when the activity is undertaken, is at the discretion of the individual. Autonomy in this context causes athletes to find great pleasure in the involvement in sports, and look forward with great expectation for the next occasion. These athletes are also likely to persist as a result of the pleasure derived from the activity. Ryan *et al.* (1997, 338) postulated that the “spontaneous enjoyment of an activity leads to increased persistence and to reduced stress and positive psychological feelings”. However, not all athletes will start various sporting activities for one of the earlier stated reasons.

Some athletes commenced participation to promote good health, others for the fame that can be derived, while some do it for the

material benefits – prizes to be won, opportunities to travel, scholarships, association with others who are involved in the activity, as well as recognition for being involved in such activities. These motives are extrinsic in nature since they are often controlled by others, and even when not controlled by third parties, are for the instrumental value rather than the activity itself. Though “some physical activities may be more conducive to intrinsic” (Ryan *et al.* 1997, 337), rather than extrinsic motivation, such as those mentioned in the previous paragraph, sports can be undertaken for either intrinsic or extrinsic motives.

Regardless of the intrinsic reason, the continued participation in sports as a result of the motives earlier stated will contribute to skills development of the athlete, as challenging activities become more routine overtime. The enhancement of competence provides further satisfaction for the athlete, while reducing the effect of intention on the behaviour (Chatzisarantis *et al.* 2006). The increase in competence may influence the athlete to participate in competition not necessarily for the reward that can be derived from such events, but as a means of assisting the athlete to evaluate his/her competence, by making a comparison with others involved in the same activity. Successful performance will therefore lead to greater satisfaction as competence improves. The improvement in competence may result in positive comments either directly or indirectly by others involved in the same activity. Verbal comments by anyone to the athlete at that stage or period of participation are seen merely as compliments and not a reward. Frederick-Recascino and Schuster-Smith (2003, 243) posited that “positive information presented within a low perceived control atmosphere will enhance self-determination and therefore increase intrinsic motivation”. However, if participation was undertaken for the purpose of gaining recognition, or even health reasons, then such comments would be a reward controlled by a third party and hence extrinsic in nature.

‘Felt positive inequity’ occurs at this stage, where the athlete feels that the internal satisfaction derived from achievements far outweigh the external rewards such as financial gains and travelling. Even though

an athlete may be aware of performance enhancement drugs, the use of such is not expected at this stage, since no immediate benefit is likely to occur. An exception to the group that is extrinsically motivated are those athletes using drugs because of health concerns as was found in the study by Bilard *et al.* (2010). However, the use of drugs by athletes (intrinsically motivated) to enhance their performance will result in a reduction in their intrinsic motivation. The use of drugs would be an acceptance of a lack of competence by the athlete, which will contribute to a reduction in the pleasure of doing the activity. The activity will also become less challenging, further reducing the amount of pleasure provided by the activity. A reduction in the pleasure derived from the activity as a result of the use of drugs at this stage of sports would be inconsistent with the motive of the athlete which is intrinsic in nature. Figure two summarizes that at the initial stage of an athlete's sport lifecycle, the athlete feels positive inequity, intrinsically motivated and needs level to be satisfied are deficiency needs. The athlete is most likely not to use PEDs at this stage.

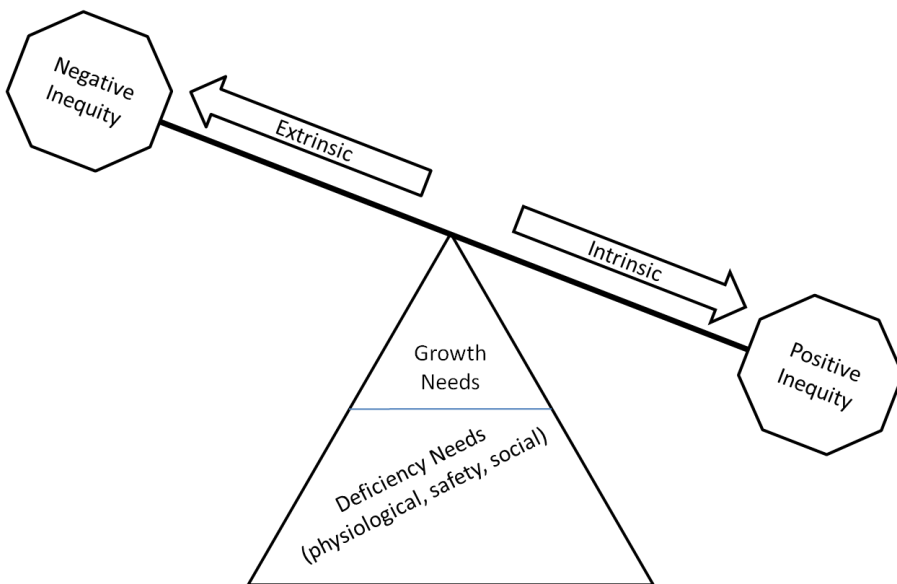


Figure 2 – initial stage of athlete's sport lifecycle (Edwards and Gobin 2016)

### *The Competitive Stage in Sports*

Improved competence at the level prior to competition will provide opportunities for athletes to progress to a higher level, such as participating in a team so that the athlete can continue to develop his or her skills. For a 'competitive athlete,' matters such as equipment, nutrition, clothing, transportation and training conditions are at the physiological or basic level. With limited success and the prospect of becoming a high performer, an athlete has a strong chance of securing a place on a recognized team. Being on the team will assist in the alleviation of these earlier needs, or concerns for the athlete, since these basic needs/issues would be taken care of by the team. Athletes intrinsically motivated will consider placement on a team as positive feedback on their competence, which may be different from a basic need. An athlete who is not economically challenged will not have the same types of needs as one who is challenged, and as such the alleviation of physiological needs will not be a priority.

At the competitive level of sports, the sport environment can be categorized as being either task-oriented or outcome-oriented (Frederick-Recascino and Schuster-Smith 2003). The type of orientation will therefore contribute to the type of motivation influencing the behaviour of the athlete. "Individuals who are task-oriented focus on the challenge and process of the competitive event, and are typically able to maintain their intrinsic motivation. Task-oriented individuals give importance to the feelings and experiences their active engagement provides them, regardless of outcome" (Frederick-Recascino and Schuster-Smith 2003, 244), as such even at this more advanced stage of sports, intrinsic motivation can still be the dominant force. However, the same cannot be postulated for outcome-oriented individuals. These individuals are "particularly focused on the end result of their competitive situation, namely winning or beating an opponent, therefore they resort to comparing themselves to others" (Frederick-Recascino and Schuster-Smith 2003, 244). The activity is undertaken by these athletes for the instrumental value rather than the activity itself, since the end result of winning or beating an opponent is their primary motive. As such,

“outcome-oriented individuals adopt a more extrinsic motivational orientation” (Frederick-Recascino and Schuster-Smith 2003, 244).

The primary motive for some athletes participating in sports may have been for the enjoyment of the activity. This motive may change over time as the activity itself loses its value as the individual tries to maintain his/her position on the team. Depending on the extent of economic support that the athlete is receiving from the team, and the need for such support, the activity may become the means for continued participation in the sport. At this phase of an athlete's career, the team becomes more important than the individual, even though the individual has to perform for the team's success. Also at this level of sports social affiliation is important as the team is likely to perform at its optimum if there is strong bonding. Though there is a feeling of competence at this level, self-determination would have been reduced, because of a loss of control over their individual participation in sport, which is determined by the team. In addition to self-determination - which is an important factor in intrinsic motivation, being reduced or lost, the activity is no longer undertaken for its own value, but for the instrumental value. Thus sports become less intrinsically motivated, and more extrinsically motivated.

At this stage of sports, an influential coach or even the desire of the athlete to be part of the group can influence their use of performance enhancement drugs (PEDs) (Moller 2010). Outcome-oriented athletes who are extrinsically motivated are more likely to do whatever is needed to win an event or beat a competitor. These athletes do not participate in sports for the joy or challenge that can be derived from the activity, and as such would also have a tendency to use PEDs. Athletes who started sports for fame and not for the enjoyment of it are more susceptible to use whatever is available to realize their desired motives. However, task-oriented athletes are still likely to resist the use of PEDs, as they are more concerned with the feelings they experience. These athletes will also find the challenge of sports affected if drugs are used as an intervening activity. The use of drugs by these athletes will also be of instrumental value, since it is used to enhance performance, and as such reduces their intrinsic motivation,

which was the pleasure or challenge of sports.

At the competitive stage, extrinsically motivated athletes are likely to experience the feeling of 'felt negative inequity' as they compare their outcome/output with comparative others. The response to this feeling to restore equity may include perceptual change, behavioral change, or leaving the sport. However, on one hand if there is limited investment by the athlete at this stage, the likely behaviour would be to leave the sport if there is 'felt negative inequity'. Significant investment by the athlete on the other hand will have a direct relationship with their commitment to the activity, since greater investment would result in greater commitment and a lower probability of them withdrawing from the sport. Committed athletes with significant investment may consider changing the 'comparative other' where there is a feeling of 'felt negative inequity', in order to restore equity in the short term. Such an action is unlikely to have the desired effect of restoring the feeling of equity, as the desired outcome/reward would still not have been achieved. The inability to reduce the feeling of 'felt negative inequity' as a result of a change of the 'comparative other', as well as the inability of the athlete to change the outcome/output, can lead to the athlete resorting to PEDs as a means of restoring equity. Athletes who are intrinsically motivated will not make the same comparisons as extrinsically motivated athletes, since their behaviour is of an internally perceived locus of causality, and as such would exclude the feeling of inequity. Figure three summarizes that at the competitive stage of an athlete's sport lifecycle, the athlete feels positive inequity, intrinsically motivated and needs level to be satisfied are deficiency needs if the athlete is task oriented. However, if the athlete is outcome oriented, the athlete feels negative inequity, extrinsically motivated and needs level to be satisfied are deficiency needs. The athlete is likely to use PEDs if they are outcome oriented and not use PEDs if they are task-oriented.



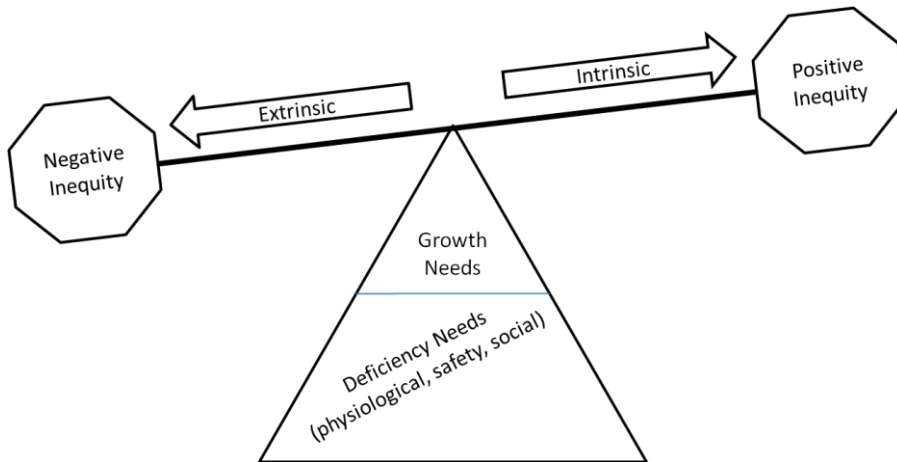


Figure 3 – competitive stage of athlete’s sport lifecycle (Edwards and Gobin 2016)

### ***The Elite and Professional Stage in Sports***

Being a professional athlete, sports become the job of the individual, as a result of this; their needs are expected to change. Even though it may appear that he/she is at the esteem or actualization level and achieving success, he/she has still not achieved his/her objective. At this phase of their life, the athlete has moved to the security level in terms of needs. Their primary objective at this stage is continued participation in the team, medical care, and existence after their sporting careers have concluded. Other professions or individuals at the end of their work life can retire and enjoy a pension while professional athletes who have a shorter productive work life are not that fortunate. The ‘after retirement’ life can only be meaningful or worthwhile if they provide for those less formative years. The more the athlete earns and set aside, the more likely are their chances of a comfortable retirement. Athletes are therefore driven to earn as much as they can, so that they can enjoy a better ‘after retirement’ life. In the developed market economies better results do not only result in higher salaries, but also endorsements (Brewer 2002), which can be very lucrative, and will contribute to the overall income of the athlete. As was earlier stated, many of the top athletes have nothing of

substance to fall back on, making this phase a very important or defining period in their life.

The future for this type of athlete is not their only concern, job security or membership in the team is also dependent on their performance. The failure of an athlete to perform at an acceptable level will result in them no longer being a part of the team. Here, high performance can guarantee a place on the team, and at the same time assist in providing for the athletes' future. At this level, if the athlete is unable to alleviate these security needs, he/she will be forced to return to the physiological needs, and as such must perform at a higher level to remain on the team. The team will take care of all the athlete's basic needs, which will no longer be a concern of the athlete. To guarantee this place on a professional team, the athlete will train harder or use whatever is available and in most cases the lure of PEDs is the easiest route to take. However, though some athletes may continue to enjoy satisfaction from improved competence and more challenging experiences, autonomy may be affected as a result of team officials determining how, when, where and the amount of training that each team member must do. As a member of a professional team, the interest of the athlete should not supersede that of the group, and development of the athlete must be in keeping with the group's goals and objectives.

Also, at the elite and professional levels, the desire to beat competitors' controls the actions of the athletes, and whatever is needed will be done to realise the desired outcome, as the athlete becomes less task-oriented and more outcome-oriented. The desire to be one of the best has been driven by the escalation of commercial interests in sport, which "has added another pressure on athletes to perform to maintain corporate sponsorships and to acquire as much wealth as possible during their brief and risky career life-span" (Stewart and Smith 2008, 283). Another external factor that has contributed to this type of behaviour is the subculture in some sports, which has a "powerful impact on its members" as they integrate within the sporting fraternity (Bilard *et al.* 2010, 6). Sport is ruled by implicit principles that create high team cohesion, which includes

doping, though it is never discussed (Bilard *et al.* 2010). These two motives were found to be some of the dominant factors contributing to doping by cyclists. Bilard *et al.* (2010) in their study of motives linked to doping behaviours found that high performance so as to achieve external rewards such as financial gain, medals, and public admiration was the second ranked motive for this kind of behaviour. The third ranked motive was “the social norms associated with the sport” (Bilard *et al.* 2010, 6). Surprisingly, the first ranked motive cited by the respondents in the study was health concerns – “trying to reduce health problems associated with the sport” (Bilard *et al.* 2010, 5). These motives are all extrinsic in nature as they are either controlled by third parties or are of instrumental value. Doping by elite athletes is not for recreational purposes, that is for the enjoyment of the drugs, but as Johnson *et al.* (2010, 4) posited, “doping is simply a means to an end, namely, improved performance and enhanced competitiveness”, and as such extrinsically motivated.

Even though athletes may have started sports for intrinsic motives, as they progress to higher levels of sports, the rewards received at these levels will ultimately reduce their intrinsic motivation, while simultaneously increasing their extrinsic motivation. The change in motive from intrinsic to extrinsic will also affect their orientation, moving from task-orientation to outcome-orientation so as to maintain their sponsorship. ‘Sports’ is the job of a professional athlete who’s basic and social needs have to be fulfilled by his/her sporting activities. The failure of the professional athlete to win or beat competitors individually – being within the top placing of the race, or as a team – a member of the team being in the top placing, will result in their basic and social needs being unfulfilled, as they lose their place on the team, due to under-performance. The action of doping is therefore extrinsically motivated, since it is done for the instrumental value rather than the activity itself. “However, it is critical to remember that intrinsic motivation will occur only for activities that hold intrinsic interest for an individual - those that have the appeal of novelty, challenge, or aesthetic value for that individual” (Ryan and Deci 2000, 59-60).

Though some athletes may participate in sports relying on training and nutrition to achieve success, elite athletes who feel under-benefited, “because they invest more time and energy in their sport career than their peers”, but feel disproportionately rewarded (Van Yperen 1997, 323), will respond to the situation in any way they perceive as appropriate in their attempt to restore equity. Due to their investment and their desire to fulfil their social and other needs, the elite and professional cyclists will not consider leaving the field as a viable option even when there is felt negative inequity. This was the case with Kimmage who “did not simply choose to leave the sport once he understood what was going on” in professional cycling (Moller 2010, 87). Other responses to felt negative inequity hypothesized by Adams were for the individual to change his or her input or output (Bretz and Thomas 1991). To cope with the lack of reciprocity as it relates to reward for their investment the elite and professional athletes “will not do well to cut down on these investments because an undesired side effect might be a decrease in their performance level” (Van Yperen 1997, 323). A decrease in performance will ultimately affect the rewards such as fame, medals, and endorsements sought by the athlete, and as such not a likely response to restore equity. An increase in the input by the ‘comparative other’ can lead to an improvement in performance, and hence the reward for the ‘comparative other’, which will not reduce the athlete’s, felt negative inequity. While changing the input may not reduce the felt negative inequity, a change in the comparative other can reduce the felt negative inequity. However, this will not change the success or performance of the elite or professional athlete, whose efforts/inputs are targeted towards achieving success, which will ultimately increase rewards. “Moreover, restoring equity by increasing one’s rewards is not always possible” because rewards are based on performance or output (Van Yperen 1997, 323).

“Sport is by its very nature competitive, and athletes are continually seeking ways of securing a competitive edge over rivals” (Stewart and Smith 2008, 291). The culture of the sport will therefore have a significant influence on the action that is likely to be taken by the athlete who feels disproportionately rewarded. Elite athletes are

pressured to 'keep up with the Joneses' because of the practice of doping in sports. If an athlete is of the opinion that the comparative others are using illegitimate means to improve performance, then in an attempt to restore equity he or she must do likewise if equity is to be restored. Kimmage (as cited in Moller 2010, 79) posited that "he was just leveling the playing field so he could compete with others". The viable option that most athletes are likely to consider in such a situation is to 'keep up with the Joneses', thus a vicious cycle of perpetual doping emerges. The culture of some sports would have a significant influence on an athlete resorting to PEDs, since it is the general belief that others are doing the same thing. By resorting to PEDs, there should be an improvement in the athlete's performance, which will be similar to the comparative others, thereby increasing the likely reward of the athlete and restoring equity. By using PEDs athletes are able to reduce their felt negative inequity because of improvement in their performance, which is often considered the only viable option by most athletes. This is expected to result in greater extrinsic rewards such as fame, medals, and endorsements, which is what an elite athlete would have set out to accomplish. Figure four summarizes that at the elite and professional stage of an athlete's sport lifecycle, the athlete feels negative inequity, extrinsically motivated and needs level to be satisfied are deficiency needs. The athlete is most likely to use PEDs at this stage.

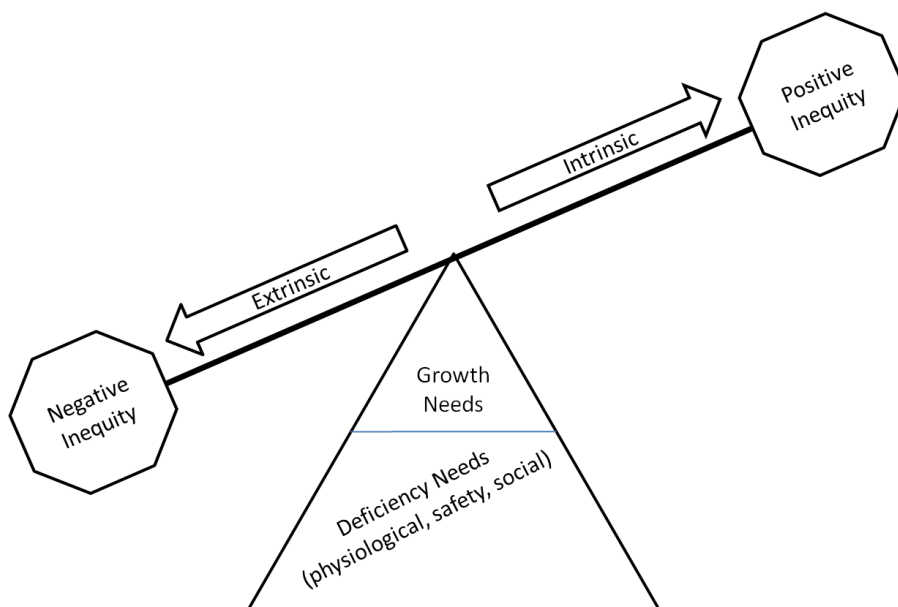


Figure 4 – elite and professional stage of athlete’s sport lifecycle (Edwards and Gobin 2016)

## CONCLUSION

The motivation theories covered in this paper highlight the complexity of the issue from a behavioural perspective, as well as the enabling factors to doping in sports. The formulation of policies without an understanding of some of these issues will not bring about the desired change. The continued trend of being reactive rather than proactive will not effectively address the doping phenomenon. Rather than attempting to eradicate the behaviour, steps should be taken to contain or restrain the activity of doping. This would not be an acceptance of failure, but a paradigm shift in the fight against doping in sports. Punitive actions have never been the only action to eliminate delinquent behaviour among people. Masculinity theory which addresses a different need of some individuals must also be considered. Stewart and Smith (2008, 288) posited that “for some athletes, the combination of illegality, risk of exclusion, and potential for physical damage can be part of the attraction of taking drugs”. They also indicated that rather than reducing the practice “a

punitive anti-doping policy may unintentionally increase the appeal of drug use for some hyper-masculine athletes because of its association with deviant and high-risk behaviour”.

The policy for the ongoing doping crisis should proactively address the needs of athletes rather than just trying to improve or enhance the general image of sports through punitive actions. The current system in the quest for clean sports has left athletes on their own to overcome their addiction. Once an athlete is perceived as having a high propensity to dope, intervening measures should be put in place to reduce the undesirable behaviour.

Based on the earlier discussion, the fight against doping in sport must address the factors that will impede clean sports, as well as those that will influence the desired behaviour. A change in the culture of some sports, as well as the current mechanism in relation to commercialism must be addressed. The process used in the fight against drugs has come under criticism and as such must address two very important issues: needs, and justice – distributive, in relation to deviant behaviour.

In addressing the security needs of athletes, a substantial percentage of the athlete's endorsement and prize money can be put into a fund which they would be entitled to if they conclude their athletic career as a clean athlete. Such a practice will reduce the likelihood of doping as the amount to be lost if found doping will be significant as an athlete competes successfully for a long period. The fund will address their security need, which is the driving force for many athletes as was earlier mentioned. The need for distributive justice has also attracted the attention of stakeholders, as athletes have received reduced penalties for cooperating with the authorities after committing a doping offence, as in the case of Tyson Gay – received two years instead of four years. There should be no discretionary provision for any athlete once they have breached the rules, since such practice can lead to persons using such provision to reduce the penalty intended to deter the behaviour. Future studies can address the acceptance of a fund approach in the fight against doping, as well

as means of identifying athletes with a high propensity to dope, so that mechanisms can be put in place to reduce the occurrence of the delinquent behaviour.



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Chapter in book:

Smith, Jo (1995). "The Economy of the Gift Revisited", in J. Robinson (ed) *Beyond Exchange*, Norwich: Norwich University Press, pp. 151-153

Journal Article:

Williamson, Oliver. E. (1968). "Economics as an Antitrust Defence; the Welfare Tradeoffs", *American Economic Review*, 58(i), pp. 18-31

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