UNIVERSITY OF NAIROBI

DEPARTMENT OF PHILOSOPHY

A RESEARCH PROJECT REPORT ON

PROBABILITY IN LEGAL REASONING:ITS PROBLEMS IN THE QUEST FOR JUSTICE

BY

TUNOI, PHILLIP KIPTOO

A PROJECT REPORT SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF ARTS DEGREE IN PHILOSOPHY OF THE UNIVERSITY OF NAIROBI.

2003

DECLARATION

This thesis is my original work and has not been presented for a degree in any other University.

Signed..... Date 8-10-2003

Candidate

Tunoi, Phillip Kiptoo

This thesis has been submitted for examination with our approval as University Supervisors.

Signed..... Date 8/10/2003

University Supervisor

Professor J. M. Nyasani

Signed..... Date 8.10.2003

University Supervisor

Dr. Jack Odhiambo

ACKNOWLEDGEMENTS

My greatest and sincere gratitude goes to my supervisors Prof. J. M. Nyasani and Dr. Jack Odhiambo. It is their diligent and scholarly guidance that has seen the actualization of this work.

I am also grateful for the encouragement from the entire Department of Philosophy and principally I would like to single out the extra-ordinary interest and efforts that the chairman, Dr. Monyenye directed towards this work.

Finally, Iam twice grateful to my colleagues Mwaura Kibe, Mwangi Peter and Ouko Jakobila for their true friendship in scholarship.

DEDICATION

Dedicated to my late mother Teriki for her inspiration and encouragement in my pursuit of higher education. I will always be grateful to her.

ABSTRACT

This is a multi-disciplinary research study. It focuses on the area of philosophy of law. It attempts to examine the nature of probabilistic reasoning and the inherent problems that it occasions in the course of the quest for justice.

The upshot of research problem is on the inherent weakness of inductive reasoning being apparently irrational as shown by David Hume. Induction, by relying on past experiences to vindicate and strengthen its conclusions proceeds by claiming that the past will be like the future. This claim, the lifeline of inductive reasoning, is logically irrational. Yet, it is the refined reformulations of inductive reasoning that are employed in legal reasoning and on the basis of their conclusions, court verdicts are deliberated. Therefore, the reasoning process, final court verdict and the consequent total quest for justice by courts become suspect as they are enmeshed in and embedded on the apparent irrationalism of induction.

The primary objective of this research study is to investigate and determine the nature and extent to which probability in legal reasoning has occasioned problems in the process of determination and dispensation of justice. The research study has been guided by the principle of natural justice as its theoretical framework.

The research methodology utilized involves explication and critical assessment of arguments, concepts and cognate issues and a detailed logical analysis of various court rulings has been done to demonstrate how intricately intertwined and crucial the concept of probability is in reaching court verdicts and in the same strength show its pitfalls.

It is paramount to assess the relationship between causation, probability, induction and justice. Therefore, in chapter two, a detailed study exposes how deeply entrenched and inescapable cause-effect principle or causation, inductive reasoning and probabilism are in legal reasoning and more so in the process of fixation of legal responsibility. It has been argued how, why and when the concept of probability is used specifically in demonstrating the causal connection between agency and the harmful outcome.

A thematic continuation of chapter two, chapter three presents an exposition of the logical structures-like the principle of evidence inquiry and admissibility, standards of proof, presumption of innocence and probative value and truth-that are employed to gauge and control the excesses of probabilism in the process of legal reasoning.

However, in chapter four, it is argued that despite the existence and application of these intellectual gauges and controls against probabilism, glaring logical loopholes exist that renders the judicial reasoning unviable, inaccurate, unfair and grossly unobjective in the course of determination and dispensation of justice. These gauges or controls are flawed, entirely

subjective and logically inconsistent in their application, hard to fulfill and allows personal prejudice. This is how probability in legal reasoning contributes to subjectivity in court deliberations and verdicts thus compounding the quest for justice.

In the light of the above, it is amply demonstrated how the concept of probability in legal reasoning occasions problems in the quest for justice. The concept of probability is not absolute and certain in relation to circumstantial facts surrounding what really happened. The inconsistency between certainty and the degree of proof accepted may mean punishing an innocent person or escape from punishment of a guilty person. This is the centrality of miscarriage of justice. In this way, probability has outlived its usefulness and is highly recommended that *inter alia,* it should be replaced with a more scientific method of reasoning. Principally, to achieve this, the urgent appeal is to philosophers, first, to resolve the quagmire of irrationalism of induction. The principle of natural justice greatly demands a more compelling and intelligible method of reasoning.

TABLE OF CONTENTS

Page

Title Page i
Declaration ii
Acknowledgements iii
Dedication iv
Abstract v
Table of Contents vii

CHAPTER ONE
INTRODUCTION 1
1.1 Background to the Study 1
1.2 Problem Statement 2
1.3 Definition of Terms 3
1.4 Objectives 4
1.5 Justification and Significance of the Study 4
1.6 Literature Review 5
1.7 Scope and Limitations 15
1.8 Theoretical Framework 16
1.9 Hypothesis 17
1.10 Methodology 17

CHAPTER TWO
CAUSATION IN LAW 18
2.1 Introduction 18
2.2 Nature and Functions of Causation 19
2.3 Causation and Legal Responsibility 22
2.4 Criteria for the Existence of Causal Connection in Law 28
2.5 Causally Relevant Condition - "Cause-in-Fact" 30
2.6 "Proximate Cause" 34
2.7 Allegedly Causal Grounds of Limitation 35

CHAPTER THREE
PROBABILITY AND LEGAL REASONING 42
3.1 Introduction 42
3.2 Evidence Inquiry and Admissibility 45

3.3 Probative Value and Truth....46
3.4 Facts versus Probability....50
3.5 Principles of Evidence Admissibility....52
3.6 Standards of Proof....56
3.7 Presumption of Innocence....61

CHAPTER FOUR
PROBABILITY, SUBJECTIVITY AND LEGAL REASONING....63
4.1 Introduction. 63
4.2 The Process and Nature of Legal Reasoning....65
4.3 Probability and Precedents....67
4.4 Critique of Probability in Legal Reasoning....68

CHAPTER FIVE
CONCLUSION AND RECOMMENDATIONS....75
5.1 Introduction....75
5.2 Recapitulations....76
5.3 Recommendations....80

BIBLIOGRAPHY....81

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND TO THE STUDY

Logic is the study of the methods and principles used to distinguish good (correct) from bad (incorrect) reasoning (Copi, 1997). It is actually said to be the science of thought as it enables one to master techniques and methods for testing the correctness of many different kinds of reasoning and that is why some scholars have defined logic as the science of reasoning.

Reasoning is a special kind of thinking by which problems are solved, during the process of which inferences take place, that is, in which conclusions are drawn from premises. There are two kinds of inferences; inductive and deductive inferences. The point of departure in legal reasoning is the establishment of facts upon which to infer the circumstantial truth and consequent conclusions. Disputes in court are most often not about laws, but about matters of fact over which there is disagreement. Legal reasoning, just as in characteristic reasoning in everyday life, is a blend of induction and deduction. Judges begin with inductive reasoning, use the inductive conclusions as premises in deductive arguments, integrate the deductive conclusions with additional inductive results, deduce more (Copi, 1997) *ad infinitum*. The end product is commonly a fabric interwoven with inductive and deductive elements. In legal disputes it is the strength of this rational fabric that determines success or failure.

In courts, the trial analysis is largely deductive in character and the reasoning is set forth in the court's opinion on a given case. Complex arguments are

devised, and arranged to have as their final conclusion the decision on the issue (s) before the court. This deductive process in the appellate courts, although very crucial, is in fact secondary. The primary reasoning process in law is inductive. The fact must be determined first of all, in trial courts and in establishing them, causal arguments, probability and scientific methods all of which are essentially inductive in kind come first. In court trials, there is need to distinguish those who find or determine the facts and those who direct the application of law to those facts. It is after the facts have been determined that the legal rules, in the form of statutes, or common law principles, or administrative regulations are to be applied to those facts by the court. Establishing the facts is therefore a principal objective when any case is tried in court. In doing this, the reasoning basically relied upon is inductive. The concept of probability thus becomes a central concern in inductive legal reasoning. Once the truths of certain factual premises have been presumed, conclusions may be drawn from those premises with deductive certainty. But the facts upon which such reasoning is based on must first be established inductively and therefore only with probability.

1.2 PROBLEM STATEMENT

The concept of probability evokes the idea of chance or possibility, and in law it is a tool for measuring the degree of rational belief. The various formulations of the concept of probability as it is appropriated in legal field evoke a sense of subjectivity. That is, the concept of probability as an individual's degree of rational belief is shaky, inconsistent, fluid and further evokes the subject's conviction towards a given set of facts. This is in total

disregard and in contradistinction to the overriding presumption of the objectivity of justice and rule of law.

In courts, the presumption is that determination and dispensation of justice is formed on objective, dependable, universal and unchanging but binding principles. It is in this perpetrated quagmire of leeway given by the concept of probability on the part of the court to subjectively exercise it in the determination and dispensation of justice, an eternally objective concept, that the problem of induction in legal reasoning takes roots. The statement of the problem is; in the quest for justice, what are the problems occasioned by the use of probability in legal reasoning? The research problem is: is it rationally justifiable for facts of a case to be inferred hypothetically on the basis of probability and consequently make this reasonable ground for determination and dispensation of justice? Is this the inconsistency that has led to the miscarriage of justice, for example, the escape from justice of person who actually has committed crimes and vice-versa? What are the philosophical implications of using probability in legal reasoning to the wider field of determination and dispensation of justice?

1.3 DEFINITION OF TERMS

PROBABILITY: In this study it will be used, interchangeably with probabilism, to refer to the belief, chance or possibility or likelihood of an event to have occurred.

LEGAL REASONING: This will refer to the nature of the reasoning process that is used in to determine legal liability or criminal responsibility of a person in a court of law.

JUSTICE: This will refer to the quality of being fair or reasonable in the determination of legal liability or criminal responsibility of a person in a court of law.

1.4 OBJECTIVES

This research is respectively guided by the following major and secondary objectives;

i) To find out the extent to which probability in legal reasoning has occasioned problems in the process of determination and dispensation of justice

a) To critically examine the foundations of probability in legal reasoning.

b) To explore the linkages between the doctrine of probability in legal reasoning and miscarriage of justice.

c) To investigate the nature and extent of the subjectivity and objectivity of the doctrine of probability and its implications to the determination and dispensation of justice.

d) To examine whether the doctrine of probability in legal reasoning has outlived its usefulness as a method of inquiry and determination of verdicts in our courts.

1.5 JUSTIFICATIONS AND SIGNIFICANCE OF THE STUDY

According to Reuben (1996:12) the role of justice and its related paradigms is ensuring the fair distribution of goods or burdens according to merit and the fixing of a recompense for a wronged party. In this relation the chief aim of

justice is to maintain order and to promote utility within society. Law and its co-variants have their core function in society as mechanisms whereby justice may be realized and since laws depends on logic in their promulgation and appropriation, there is need to examine and appraise the concept of probability as it forms the basic foundation of exercising the essence of law.

Currently with the frequent occurrence of miscarriage of justice there is urgent need to examine the quality, content and basic assumptions of probability concept in legal reasoning. This will foster and enhance its purpose in law and legal reasoning. Given that law is an aspect that significantly affects every individual in society, a constant evaluation of its application is necessary for it to receive mandate and appreciation from those the law is intended to serve for justice to be realized.

The findings of this study will form a core source of reference for students, policy makers and all those interested in the topic of probabilism in legal reasoning. The study findings will clarify, enhance and foster a clear understanding of the nature, application, purpose and extent of probability in legal reasoning.

1.6 LITERATURE REVIEW

The following is a review of the relevant available literature on probability, legal reasoning and justice.

The centrality of probability and its essence in legal reasoning and in the final determination of a case is best exemplified in "Medical Evidence and the law in

the Breast Implant Case" as reported in the New England journal of Medicine where the appellate judges first delved at length on the "preponderance of the evidence" as their major ground of departure. In their ruling of the case *Virginia Horst v. Medfield manufacturers and others*, they assert: Preponderance "of the evidence" is that amount of evidence necessary for the plaintiff to win a .....case. It is that degree of proof *which is more probable than not* (Emphasis mine). Evidence which is of greater weight or more convincing that the evidence which is offered in opposition to it; that is, evidence which as a whole shows that the fact sought to be proved is more probable than not. With respect to the burden of proof in civil actions, it means greater weight of evidence, or evidence which is more credible and convincing to the mind; that evidence which best accords with reason and probability (Angel 1996:03)".

The purpose of this long explication of the concept of preponderance of the evidence is that the judges wanted to bring to the fore the fact that "it is most probable than not that the silicone breast implants were the core cause of various health complications that accompanied each and every woman who had received a breast implant surgery (Angel, 1996:08)". That is, the systematic complications on each and every woman who had received a silicone gel-filled breast implants was enough an evidence - that is, preponderance of the evidence was overwhelming - that they were not medically fit and free from causing serious health complications and on that basis of the expansive empirical evidence, it was timely and legal to compel Food and Drug Administration (F.D.A) of America to ban any continued manufacture, sale, prescription and implanting of the silicone breasts, and to order the multi-

million dollar manufacturer to pay compensation to the injured parties who had filed lawsuits. Dictates of reason of the jury compelled them to reason that the implants had had a high probability of contributing to the health complications of the women than not. The central concern of the jury's decision is: *did they, beyond any reasonable doubt,* have proof that it was only and only silicone gel that filled breast implants and not perhaps the clinical drugs associated with the post surgery that principally contributed to the health complications?

The concept of probability in legal reasoning has not ever been challenged as it was in the paper of Graham Del. He presents his findings that he had researched on ninety eight percent of all the women who had received the breast implant in the first five years since the inception of breast implants in the market. Crucial in his findings is that 'there was an inextricable connection between having breast implants and a dramatic rise in sexual indulgence and consumption of contraceptives. More complex questions in the light of these research findings indirectly challenge the casualness with which the judges connected breast implants and health complications. Consequently, this has fierce implications on the validity of the Supreme Court ruling banning silicone breast implants' (Del, 1990:19).

According to Del, the women had confided to him that they had multiple sexual partners who had a keen interest in them principally because of the new sexy look and shape of the breasts. These women on average were indulging in sex for ten to fifteen hours daily. Since all were in the child bearing age group and thus fertile, to minimize the chances of conception, with the consequent denial

of sexual enjoyment with the new - look breasts, all women had been taking the newly invented first generation hormone - based contraceptives.

The complex questions challenging probability concept became; are these women developing health complications most probably because of the use of the contraceptives or over indulgence in sex with many partners or the reaction of contraceptives with the post surgery drugs or silicone itself?

Basing their arguments on the strength of Del's findings the manufacturers lodged appeal cases against the court ruling allowing F.D.A banning from the market breast implants. At this point, the question becomes how probable or what degree of probability is required in proving a case in a court of law? How foreseeable should the causal connection in legal reasoning be? Is there a limit of the cause - effect principle in law? If yes, what is its nature?

Patton (1964:23) argues that rules of formal logic are of great significance to courts. They assist in discovering truths or facts. It is his contention as well that law, notwithstanding the inability of logic to discover the truth and nothing but the truth, cannot dispense with a logical method if it is to have any claim at all to rationality. He poses the question: "Can we think at all without following the rules of logic?" He maintains, "formally, thinking is good or bad if the conclusion does or does not follow from the premises" (Patton 1964:74).

Inductive inferences start with particular premises about a finite number of past observations, yet end up with a general conclusion about how nature will always behave. This, according to Ruben (1996:42) is the source of the

notorious problem of induction. For it is unclear how any finite amount of information about what has happened in the past can guarantee that a natural occurrence will continue for all the time.

As to the significance of logic and probabilistic reasoning in the quest for justice, Patton (1964:74) observes that to give up logic because of the excesses of a particular method or to worship irrationality because of the mistakes of the past, would be as unwise as to sacrifice our eyes because occasionally we see what is not there. To suggest that the best law can be achieved without a proper use of logic is simply non-sense.

Leonard (1957) observes that every legalistic argument, no matter how simple it is, must of necessity involve reasoning from the presented facts and evidence. Nevertheless, many mistakes are made in an effort to achieve certainty in conclusion.

The rules of the legal system usually specify what degree of probability will be needed to prove matters of different kinds. These are called the standards of proof. In civil law the claimant will be expected to show the jury or tribunal that his claim is only more likely to be true - in other words he has to prove his case only on the balance of probabilities. In Criminal Law, the State has to show that the offender is found guilty beyond all reasonable doubt.

It is manifestly clear, therefore, that probability plays a critical role in legal argument. Whether a matter can be proved on a balance of probabilities, or beyond reasonable doubt, may make all the difference in a court of law. New

Jersey Supreme Court wrote, in *Bolta v Brunner, 26 N.J 82 (1958)* that: - "These traditional devices, provide the scales on which the persuasive impact of the sum total of the evidence must be weighed".

The evidential burden in criminal cases is a subject of constant interest. "No matter what the charge ... the principle that the prosecution must prove the guilt of the prisoner is part of the common law of England and no attempt to whittle it down can be entertained" so said Lord Sankey in *Woolmington v D.P.P (1935) A. C 462.*However, there is a considerable volume of opinion among philosophers and lawyers to the effect that the legal burden be cast upon the offender.

Crawford (1996:210) a part-time philosopher and loser of a one year multi-billion contract(*see Crawford v. Streton*) in attempting to explain why he had to lose the case anyway, in his biography asserts that "since the judges and juries are ordinary men and women simply held in high social esteem as the guardians and dispensers of the law and justice, and more so are drawn from the general public, the attitudes they bring with them to court reflect typical public opinion". Turning to history to prove his case he asserts "As no systematic polls on the breast implant controversy were carried out, the large segment of the public seemed to accept the view that breast implants cause serious diseases despite the lack of systematic evidence. I believe this mainly has to do with the *post hoc, ergo propter hoc* fallacy. Many people simply can't accept the fact that if a woman falls ill after she get implants, it may be a coincidence. Thus, the watchword of some women with implants, "we are the evidence", seems reasonable to many people, although it is logically meaningless.

It is as though the rooster who crowed before dawn then took credit for the sunrise, and thought the sequence of events was proof enough".

Crawford sees no special and complex way of reasoning that the judges and juries engage in. Consequent to this he firmly disputes the existence of justice and calls it "a fabrication to safeguard the powerful capitalistic interests" (Crawford 1996:230). He conclusively disputes that justice is founded on principles of natural reason and this is exemplified by his claim, "court rulings are dispatches from self-regarding reasons" (Crawford 1996: 241)". He asserts that he had to lose the case because "the stipulations of the contract were vague, null, void and legally unenforceable (Crawford 1996:245)".

The point here is that Crawford does not realize his contradictory stance as the last quotation underlines the fact that dictates and stipulations of natural justice, that is, the probability and merit of the case to succeed was quite fulfilled - that is, he had to lose the case because the stipulations of foundations of contractual obligations were unfulfilled. Anyway it is easy to appreciate and understand Crawford's venom towards judicial systems and his perception of the rule of law in the world. He was a sworn enemy of social order, had open disdain of black judges, a confessing racist and always holding himself in high esteem and regarding himself as a portrait of individual perfection (Castina, 1997:43).

The inappropriateness of use of probability in legal reasoning is best exemplified by the case of *Wellington v. Dominion and others*. Wellington, a cowboy by the time of filing of the case, was employed to graze beef cattle in

Seattle using a horse. In the suit he alleges that the tight underwear that he had been wearing for the last five years, manufactured by, sold and distributed by Dominion Cloth Manufacturers had led to his inability to make his wife pregnant. Medical report indicated he had low sperm count probably as a result of the effect of the tight underpants. The examining doctor did not examine Wellington, as he was a family friend, but had just asked him to provide his semen.

The court's decision was in favor of Wellington. But the accused lodged an appeal on the basis of the inconsistencies raised. They required Wellington to be examined by a doctor to ascertain the cause of his malfunctioning and the consequent inability to impregnate his wife. The appellate judges upheld the previous ruling and ordered the defendants to pay the compensation. Crucial to this discussion is the judge's argument on probability thus "It is highly probable that the tight underwear principally made of silk has contributed to the inability of proper manufacture and storage of healthy and adequate sperms as per the biological requirements and this has been exemplified by the medical report".

After receiving the compensation, Wellington ran away to San Francisco and put up with another woman. The first woman moved to court seeking Wellington to be compelled to honor their contractual agreement. In her affidavit, she swore she was on pills to avoid pregnancy and Wellington had had his private parts crushed by the horse's metallic shoe when he was a young lad. They had agreed to cheat and obtain the money from Dominion on the pretext that she can't fall pregnant, as the tight underpants had affected her husband

negatively. But it is true that in studies involving chimpanzees, researchers had seen a drop in sperm count when they were made to wear those Dominion tight underpants. The judges had greatly depended on these findings after they were informed of it by Wellington's lawyer who also had agreed to receive a percentage of the compensation if the case sailed through. The concern of this case of *Wellington v. Dominion* and others to us raises several questions: how dependable is probability in legal reasoning? Can analogical reasoning in law be relied upon? How should we treat expert's evidence in court cases?

Williams (1990) critically examines the method of evidence inquiry in court and encourages society at large to shun probability. He examines several crucial cases through and by which he shows probability in all its various manifestations as outdated, misleading and grossly misused. He contends, "that it is like a double-sided machete that can cut back and forth and analogically probability can adduce evidence both for or against being guilty".

He critically examines the case of Dexter, fifty-seven, who had been arrested, accused and incarcerated for eight year for killing his wife. When he was freed, it was because of lack of evidence. Circumstantially, the wife was shot in one of upper floor rooms while Dexter was in the kitchen. He admitted having heard the gunshots but did not bother to check. A neighbor called the police who came and arrested him. The gun that was used was left lying on the floor and resembled one that Dexter had acquired through "black market" a month ago. By the time of his arrest it was still in the safe he had secured it since he acquired it on credit. He was not supposed to use it until he had paid fully for it.

Williams questions if it was right to punish Dexter who was arrested with unlawful gun at his disposal although it was not known if he used it to kill his wife. He further raises the question of whether it was naturally just for him to have been arrested and yet the neighbor was not arrested also and charged for murder since equally on principle he had heard the gunshots and saw no one leave the house, nor had any circumstantial evidence that Dexter committed the crime? Williams concludes that Dexter was punished for his wife's death simply by virtue of being at close proximity of the scene of crime. In his defense Dexter says that he committed no wrong by not rushing to check after he heard the gunshots, that is, he didn't act negligently by not going to check his wife upstairs. Despite pointing circumstantial evidence, any reasonable person may claim Dexter committed the crime, the appeal trial judges found no direct evidence beyond any reasonable doubt that could have crucially implicated him.

Williams (1990:40) criticizes the first judge of the court who jailed Dexter on the strength of the conviction that "no angel shot your wife - you had locked the main door, had similar gun, was alone in the whole house and uncharacteristic of people, you didn't bother after you heard gunshots".

A recent crucial legal tussle founded on the concept of probability is the recent Michigan Supreme court's decision to allow vehicles to be searched based on the smell of marijuana. On February 2001, the Michigan Supreme Court ruled that the smell of marijuana justifies the search of a vehicle. This reversed the ruling of two lower courts and an earlier state Supreme Court

decision. Of great interest is: could smell be sufficient grounds for searching vehicles? What if no marijuana is found, could the person sue for the violation of the Fourth Amendment that protects people from unreasonable searches?

It is true that smell may demonstrate, or point towards a high probability that there is marijuana in the car. So police officials will be able to justify their searching because of the smell, whether it exists or not. Odour is completely subjective - it is completely impossible to prove a car smells a certain way. Will the smell of marijuana be a ground to be charged in a court of law that one's car smelled of unlawful substance? That is, could one be charged in a court of law for having marijuana and secretly and safely hiding it and that it is only smell that is detectable? To charge someone on account of odour would be quite interesting an occurrence in global legal realm.

This review shows how crucial, yet how volatile the concept of probability in legal reasoning is.

1.7 SCOPE AND LIMITATIONS

The scope of this study is the analysis and explication of the concept of probability in legal reasoning and the problems that it occasions the in quest for justice. The study will limit itself to the application of probability in legal reasoning as applied in court cases. Time and money being the only limitations facing this study, however, did not compromise the quality of this study.

1.8 THEORETICAL FRAMEWORK

This research project has been guided by the principle of natural justice, under which something, an occurrence or event is considered right and just by reference to logical reasoning. The principle is pegged on the idea that the best cause of action is that which oscillates between fairness and being right. In order to be just, one needs to exercise reason, as it is the only recourse that man has and differentiates him from other beings. To exercise justice, it is a pre-condition that one ought to be fair and right. How and when one is fair and right is only possible through the power of reason.

Dictates of right reason direct a moral agent towards that which is fair, just and right. Right reason appropriates logic, that is, consistency and systematic process of thought. Logic is a tool for making thinking clear, unequivocal and ensures that the conclusions are sound. Natural justice demands that pure, categorical principles of reasoning, uninhibited by dogmas and illogical assumptions should be used in determining how fair and right a certain given cause of action is.

It is rightly assumed that through reason, human mind is capable of, by itself discerning and discovering fair, morally acceptable, balanced and right decisions. It is this capacity of the mind that is referred to as the natural power of reason. This authentic, and unaided power of reason to discover universally acceptable and morally binding decisions concerning issues of morality, duties and division of goods and burdens among society members is what is usually referred to as natural justice, that is, its force of reckoning is founded on men's nature rather than conventions.

1.9 HYPOTHESIS

This study is guided by the hypothesis:

i) That the concept of probability in legal reasoning has occasioned problems in the quest for justice.

1.10 METHODOLOGY

This is solely a library - based study focusing on secondary sources of data from books, journals, magazines and the internet related to the topic under discussion. The information so gathered has been subjected to critical, speculative analysis and interpretation with a philosophical bias. This research study has utilized the distinctive philosophical method that involves explication and critical assessment of arguments, concepts and cognate material issues.

A detailed study of court rulings issued in different trials, is done. These rulings are analyzed and interpreted, with special attention being paid to the role probability played in arriving at their verdict. The analysis has been done from a logical perspective applied to the empirical and metaphysical grounds of those cases.

CHAPTER TWO

CAUSATION IN LAW

2.1 INTRODUCTION

It is inconceivable to discuss probabilism, as used in legal reasoning, without first establishing it's nature, groundwork and relationship with the principle of causation. In a court of law, the idea is first to establish the facticity of events as evidence upon which a valid judgment is determined. The events or facts as they initially occurred must be causally related. It is the logical persuasion of the alleged effects and the events based on probability, which in turn is based on induction that a sound judgment rests. That is to say the likelihood that there is a strong relationship between causes and their consequences and therefore legal liability gives forth a valid ground for validating probabilism in legal reasoning .As such probabilism in legal reasoning is heralded by causation or cause-effect principle and how they do or do not tally.

The basic questions dealt with in this chapter are: (i) whether and to what extent causation in legal contexts differs from causation outside the law, for example in science or everyday life, and (ii) what are the appropriate criteria in law for deciding whether one action or event has caused another, (generally harmful) event. The importance of these questions is that responsibility in law very often depends on showing that a specific action or event or state of affairs has caused specific harm or loss to another. Are the process and criteria adopted in deciding these causal issues both objective and properly attuned to the function of fixing responsibility?

This chapter covers the nature and functions of causation, the relation between causation and legal responsibility, and the criteria for the existence of causal connection in law. The last topic is treated in two parts: what are causally relevant conditions ('causes-in-fact') and what are the grounds for limiting responsibility (the 'proximate cause' requirement). The philosophical question addressed in this chapter is what is the nature, extent and influence of causation in legal reasoning.

2.2 NATURE AND FUNCTIONS OF CAUSATION

Law is concerned with the application of causal ideas, embodied in the language of statutes and decisions, to particular situations. This involves, first, a conception of what a cause is outside the law. To this a variety of empirical (following Humean empiricism) and metaphysical (following Kantian tradition) answers have been given and each has its contemporary supporters.

Secondly, a theory is required of how causal notions should function in different contexts. In the context of application the notion of cause is a multi-purpose tool. One function, perhaps fundamental, is forward-looking: that of specifying what will happen and by what stages if certain conditions are present together. This use of cause serves to provide recipes and make predictions. It also yields the idea of a causal process. Another function is backward looking and explanatory: that of showing which earlier conditions best account for some later event or state of affairs. A third function is attributive: that of fixing the extent of responsibility of agents for the outcomes that follow on their agency or intervention in the world.

For the first of these purposes the emphasis falls on a cause as consisting of the whole complex of conditions required if a certain outcome is to follow. Even when applied to a specific situation this involves considering what generally happens when certain conditions are present. In the second, explanatory, context the focus is on selecting from the whole complex the particular condition or conditions that best explain a given outcome. The aim can be either to explain a class of events or a particular event. In the third, attributive, context the aim is again selective, but from a different point of view.

It is to attribute responsibility to an agent for those outcomes that his, her or its agency serves to explain and that can therefore plausibly be treated as part of the agency's impact on the world. Here the purpose is to settle the extent of responsibility that attaches to a particular human action or other event or state of affairs. This responsibility is then attributed to an agent or, metaphorically, to the other event or state of affairs in question (e.g. outbreak of war, high unemployment).

In law the second and third of these functions of the notion of cause are prominent, often in combination. Many legal inquiries are concerned to explain how some event or state of affairs came about, especially an untoward event such as death or a state of affairs such as insolvency. But in law the third function is particularly salient and controversial. Whether someone is liable to punishment or to pay compensation or is entitled to claim compensation often depends on showing whether that person is potentially liable or entitled to

compensation or has caused harm of a sort that the law seeks to avoid. For example, all systems of law hold that a person can be guilty of homicide only if he or she has caused another's death. All systems treat it as a more serious offence to cause death than to attempt to do so. It is a civil wrong to cause injury to another by negligence in driving a vehicle, but the claim is barred or reduced if the negligent conduct of the person injured is also a cause of the injury. An insurer is required to pay for losses caused by an event of the type defined in the insurance policy, such as fire or flooding, but not if the cause of the loss is something else.

The attribution of responsibility on causal grounds is not confined to law. Historians and moralists, for example, assess the responsibility of agents for the outcomes, political, social, economic or military of what they did or failed to do. Unlike lawyers, they are concerned with responsibility for good as well as bad outcomes. But whereas historians may aim to assess the outcome of an agent's conduct over a period or even a lifetime, lawyers focus on the harmful outcomes of particular actions as proscribed by law. These uses of causation by historians, moralists and lawyers raise the question, adumbrated by Collingwood(1940), of whether the attribution of responsibility requires a different conception of cause from that employed for prediction or explanation. In the legal theory of causation this problem is of central importance.

2.3 CAUSATION AND LEGAL RESPONSIBILITY

In law, legal responsibility is principally founded and directly related to causation. It would be impossible to ascribe responsibility without first examining the relation between causes and effects or in other words causation. Nyasani (2001:51-52) informs that causation is a concept very frequently encountered in law, especially Criminal law, where it is generally understood to mean the direct production of an effect by a cause in contradistinction to the philosophical meaning of the mere relationship between cause and effect or the nature of the relationship subsisting between the causing agent and the effect produced, in this case often referred to as causality. Whatever the nuance in meaning between legal and philosophical causation, it must be admitted that both senses capture or, rather, envisage the important act or fact of relating cause and effect in a very special way of denoting mutual compatibility and consequential inevitability at least on the phenomenological order.

In the above sense then, there is strictly no effect without a cause and vice-versa. This sense of causing and producing an effect is taken up in criminal law as causation where it boils down to some conduct on the part of a defendant as being the legal or proximate (direct) cause of the resulting effect or consequence. Similarly, Criminal Law, in this sense, is very particular in specifying the causal nature of the ensuing effect, namely, that it must be proximate and not tortuous or circuitous as to invite conjectural possibilities with regard to the consequences or effect. The effect which ensues must also be one that is prescribed by law or directly comes under certain legal provisions whether as a prohibited (forbidden) conduct or as an inherently *malum* in se morally and legally"(Nyasani, 2001:52).

When rules of law attributing responsibility for harm caused are formulated in statutes, regulations and judicial decisions, the word 'cause' is often used. The notion that causal connection between agency and effect must be established is however often implied even when the word is not used. This is true, for example, of the use of verbs such as 'damage', which imply a causal relation between an agency and the harm done. In legal contexts the possible range of agency is not confined to human conduct, but may extend to damage done by the agency of juristic persons, animals, inanimate objects such as motor vehicles and inanimate forces such as fire. In all these instances the use of the notion of cause is central to the legal inquiry, since to establish responsibility it must be shown that the harm was done or brought about by the agency that the law treats as a potential basis for the existence or extent of liability.

The relationship between causing harm and legal responsibility is however complex. The complexities concern the incidence of responsibility, the grounds of responsibility, the items between which causal connection must be demonstrated, and the variety of relationships that can in some sense be regarded as causal. So far as the incidence of responsibility is concerned, while in law the relevant causes may be human or animal behaviour or natural events or processes, legal responsibility attaches in modern law only to natural persons (human beings) and juristic persons such as states, corporations and other institutions to which personality is ascribed in law.

According to Nyasani (2001:43) a legal person, in legal context, is a wide notion which does not only signify a human person but also beings that are found to exist in the supernatural realm as well as those beings, real or imaginary, which the law accords recognition as though they were human beings capable of enjoying rights and observing prescribed legal duties. A church organization, for example, can be a legal person capable of enjoying prescribed rights. One can rightly argue that such organizations enjoy legal rights by virtue of the fact that they are constituted for man who, in turn, enjoys legal rights in *rem*. This contention can be validated by the Latin epitome: *hominum causa omne jus constitutum,* which literally means all right (law) is made for the sake of men".

As regards the grounds of responsibility it is important to grasp that for a person to cause harm or loss to another (the term 'harm' will be used for short) is in law neither a necessary nor a sufficient condition of being legally responsible for the harm. It is not a necessary condition for two reasons. First, in legal contexts people are often made responsible for harm caused by other persons (e.g. the vicarious liability of employers for employees), animals (e.g. the bite of a dangerous dog), inanimate objects (e.g. the collapse of buildings, the impact of vehicles) or processes (e.g. fire, subsidence). In these instances the ground of responsibility is, from the point of view of the person held responsible, not that he, she or it has caused harm but that they bear the risk that some other person, animal, thing or process may cause harm. The risk may be voluntarily assumed, as in insurance contracts, or may be imposed by law, as in the case of employers' liability for wrongs committed by employees in the course of their employment. Much of the law is indeed concerned with the distribution of social risks.

The responsibility of the person who bears the risk may be additional or alternative to the responsibility of the person (if any) who wrongfully caused the harm in question. Thus, if an employer is responsible for harm caused by his or her employee to another person the employee may or may not also be legally responsible for that harm. In law the main grounds of responsibility for harm are therefore (i) an agent's personal responsibility for causing harm and (ii) a person's responsibility arising from the fact that he, she or it bears the risk of having to answer in legal proceedings for the harm in question.

A second reason why causing harm is not a necessary condition of legal responsibility is that there are many contexts in which a person is civilly or criminally responsible irrespective of whether any harm has been caused by their conduct or that of an agency for which they are responsible. Thus, in law those who trespass on another's land or who break a contract may be civilly liable and those who unlawfully possess firearms criminally liable though no tangible harm is thereby caused to anyone. Both inside and outside the law many actions are regarded as wrongful whether or not they cause tangible harm. Moreover the imposition of penalties in civil law and of punishments in criminal law need not bear any relation to the harm (if any) caused by the conduct for which the penalty or punishment is imposed.

To cause harm to another is also not a sufficient condition of legal responsibility, even in the eyes of those, such as the early Epstein, who would in general favour making agents strictly liable for the harm they cause. For a person to be legally responsible for causing harm to another requires, apart

from a number of conditions relating to jurisdiction, procedure and proof, that the conduct should be of the sort that the law designates as unlawful (e.g. negligent driving) or as a potential source of liability (e.g. keeping a dangerous animal). It also requires that the purpose of the law should encompass harm of the sort for which a remedy is sought. Thus, in some contexts only physical, not economic or psychological harm grounds a legal remedy. Moreover considerations of morality must not rule out liability, as they well might if, for example, a burglar were to claim compensation for an injury suffered while breaking a window in order to enter the victim's house.

There is also a complication concerning the items between which causal connection must in law be shown to exist. The inquiries with which law is concerned relate to particular events. Did one action, event, process or state of affairs (event for short) cause another? The link that must be established in legal proceedings between events is of a special type. A person's conduct or a natural event or process can always be described in a number of different ways, but only certain descriptions of an alleged cause are crucial in legal proceedings. For example, if a claim for damages is brought against a motorist for causing injury to the claimant by driving negligently, only that description of his or her manner of driving that amounts to negligence is capable of constituting a relevant cause. Hence 'On 5th March at 5 p.m. Kamau drove at sixty miles an hour in a built-up area' may be relevant while," Kamau drove a Mercedes' may not be, though both correctly describe Kamau's act of driving a car on the occasion in question.

In a legal context, therefore, the link to be established must be framed in terms of a link between particular aspects of events. The claimant in a civil action will typically argue, for example, that the fact that Kamau drove at sixty miles an hour in a built-up area on such-and-such an occasion caused the collision that in turn caused the victim to suffer a broken leg. Though it is controversial whether causal connection is to be conceived as a relation between events or facts (Davidson, 1970), in law both are relevant. The events in issue must be identified from the point of view of the time, place and persons involved, but the aspect of the events between which a causal link must be shown has to be specified in such a way as to show that it falls within the relevant legal categories, such as (in the example given above) negligence and physical injury.

The relationship between causing harm and legal responsibility is also complex because of the great variety of relationships between agency and harm that can be regarded as in some sense causal, or analogous to a causal relationship.

An omission to prevent harm when the person concerned has a legal duty to prevent it can ground legal responsibility but would ordinarily be described as 'not preventing' rather than causing the harm. Again, legal responsibility is often imposed, in the context of interpersonal relationships, on those who influence others by advising, encouraging, helping, permitting, coercing, deceiving, misinforming or providing opportunities to others that motivate or enable them to act in a way that is harmful to themselves or to others.

In some cases (coercion, deceit) the persons held responsible would naturally be said to have caused the persons influenced to act as they did, while in others they would not, though the weaker interpersonal relationship is, in some respects, analogous to more plainly causal relationships. Failing to help or provide opportunities to others by advising, warning, informing or rescuing them or supplying them with agreed goods and services are other grounds of responsibility for negative agency that, again, are at least analogous to causal relationships. The existence of this wide spectrum of causal or near-causal grounds of responsibility recognized in law and morality raises the question whether any uniform theory of causation is capable of accounting for all of them.

2.4. CRITERIA FOR THE EXISTENCE OF CAUSAL CONNECTION IN LAW

The theories concerning the criteria for the existence of causal connection in law fall into two classes. Some focus on the type of condition that the alleged cause must constitute in relation to the alleged consequence. Others are concerned with a specific feature that the cause must possess in relation to the consequence in order that causal connection may be made out. The first class of theory concerns the identification of the causally relevant conditions of an outcome, or, in the language of causal minimalists, 'cause-in-fact'. Must the cause be a necessary condition, a sufficient condition or a necessary member of a set of conditions that are together sufficient for the outcome? In law these terms, much discussed in the philosophical literature, are interpreted as meaning 'necessary or sufficient in the particular circumstances in issue'. The inquiry will be, for example, into what was necessary or sufficient

to cause a particular persons' death, not what are in general the necessary or sufficient conditions of death.

The second type of theory concerns the criteria for determining the limits of legal responsibility for causing harm. Even supposing that the alleged cause constitutes the right sort of condition of the outcome (e.g. a necessary condition), responsibility cannot extend indefinitely. The failure of a doctor to prescribe an effective contraceptive cannot be held to be responsible for the death of the victim of a murder committed by the child conceived as a result of the doctor's negligence. Some consequences are 'too remote'. But what are the appropriate criteria of limitation?

In many legal contexts and in the view of many theorists a single criterion is called for. It should be remembered, however, that the search for a single criterion might be no more than a response to legal doctrine. This sometimes requires all the limiting factors to be brought under a single umbrella, such as 'proximate cause' or 'adequate cause' even though, underlying these phrases, there are a number of distinct reasons for imposing limits on the extent of responsibility. A number of expressions are used to describe the allegedly single limiting factor, in particular 'proximate (adequate, direct, effective, operative, legal, responsible)' cause in contrast with 'remote, indirect or legally inoperative' causes.

Some theorists for example Leon Green (1927) and others since the 1920's up to Wright (1985) and Stapleton (1988) hold that only the issue of causally relevant condition or cause-in-fact is genuinely causal. It alone raises questions

to which an objective, scientifically valid, answer can be given. Even this has been questioned by Malone, who has pointed to the incorporation of normative considerations in the rules for proving cause-in-fact in civil law.

The second type of theory concerns questions of responsibility that would in the view of these causal minimalists be better addressed directly rather than by asking whether on the facts a causal relation existed between agency and harm. One way of doing this is to ask what would be the fairest way of distributing the relevant social risks. Another (Posner, 1978) would be to place responsibility, especially in civil law, on the person best placed to avoid the loss most cheaply. In practice legislators and judges have seldom abandoned the traditional terminology in discussing the second issue, but the proposal to do so has been repeatedly revived.

2.5 CAUSALLY RELEVANT CONDITIONS: 'CAUSE-IN-FACT'

What sort of condition must be attributed to an agency for its action or intervention (action for short) to count as causal? Opinion is divided between those to whom the action must in the circumstances be necessary to the outcome (a but-for condition), those to whom it must in the circumstances form a necessary part of a complex of conditions sufficient for the outcome (a necessary condition), and those who would describe the required connection in a more quantitative or scalar mode by requiring that the action be a 'substantial factor in' or 'contribute to' the outcome.

The but-for theory, endorsed by many legal and philosophical theorists including Mackie (1974,1980), has the heuristic advantage that a simple and

often reliable way of ruling out the existence of causal connection between agency and harm is to ask whether the harm would in the circumstances have occurred in the absence of the agency. If the harm would have occurred in any event the agency is probably not its cause or one of its causes. If it would not have occurred in the absence of the agency the agency will be a causally relevant condition or, if one endorses causal minimalism, a cause-in-fact of the harm.

There are however cases in which the but-for test is difficult to reconcile with the intuitive judgements of responsibility. These concern two types of case in particular, those of over-determination and of joint determination. If two huntsmen independently but simultaneously shoot and kill a third person, or two contractors independently fail to deliver essential building supplies on time, it is intuitively clear that each should be held responsible for the death or building delay. Yet the but-for test seems to yield the conclusion that neither has caused the harm. Again, in interpersonal relationships it is often the case that advice etc. can be regarded as contributing to a person's decision without its being shown that the person would not have acted as they did apart from the advice. Many reasons bear on the decisions we make. Sometimes it is not possible to be sure that in the absence of one of them the decision would have been different. We know only that to the person reaching the decision the reasons taken into account were jointly sufficient to induce him, her or it to decide as he or she did.

In reply it is argued (Mackie 1974; 1980) that in these cases all the agencies that are singly or jointly sufficient for the outcome together constitute its

cause. But in law this does not solve the problem because, unless the agents are acting in concert, the responsibility of each agency has to be independently established. This can be done either by an appeal to intuitive notions of responsibility or by recourse to an alternative ground of responsibility based on risk. On the alternative view an agency that provides an independently or jointly sufficient condition of harm bears the risk that that harm will eventuate even if it would in the circumstances have come about in any event.

Some of those who reject this approach {e.g. Hart (1985), Honoré (1971)and Wright (1985)} have recourse to a theory based on J.S. Mill's notion of a jointly sufficient set of conditions. The theory also draws on Mackie's idea, in the context of causal generalisations, of an INUS condition (insufficient but non-redundant part of an unnecessary but sufficient condition). They advocate the view that in a specific situation a causally relevant condition is a necessary element of a set of conditions jointly sufficient for the harmful outcome. For this Wright's term NESS condition (necessary element of a sufficient set) is currently used, a NESS condition being a specific instance of an INUS condition. NESS supporters therefore appeal to the idea that particular causal links are instances of generalisations about the way in which events are connected. They argue that in order to test whether an outcome would have occurred in the absence of the agency in question it is necessary to make a counterfactual calculation, which can only be done on the basis of such generalisations.

Those who reject the NESS theory either assert that singular causal judgments do not depend on generalizations or point to the fact that reliable

generalisations of the sort presupposed by it are in practice virtually confined to inorganic physical processes. Organic processes, such as those involved in the development of disease, and, still more, in decision-making by human beings, do not conform to settled patterns. The NESS theory therefore has at most a narrow range of application.

Some of those who are impressed by what they see as the deficiencies of both the but-for and NESS theories prefer a more quantitative or scalar approach, according to which an agency can cause an outcome to a greater or less extent (Moore 2000). They argue that an agency must be a 'substantial factor in' or 'contribute to' the harmful outcome in order to be legally a cause of it. This approach has a particular attraction when a number of processes (e.g. several fires or pollutants) merge to bring about harm. It enables distinctions to be made according to the extent of contribution of a particular process to the outcome. It also fits the rule that in most legal contexts an agency, in order to be responsible for the whole of the harm that ensues, need only be shown to be one of the causes of harm, not the sole cause. The criticism that can be made of this approach is that it presupposes an independent understanding of causes as necessary and/or sufficient conditions in relation to their consequences.

Difficult philosophical and legal problems arise in certain cases of over determination, often termed those of 'overtaking causes' or 'causal preemption'. Suppose that a lethal dose of poison is given but the victim is fatally wounded before the poison takes effect. The pre-empting, not the pre-empted condition is taken to be the cause of the death. Which condition is taken to preempt the other is sometimes controversial but it is clear that in

reaching a decision attention must be paid to the stages and processes by which the alleged causes lead to the harmful outcome.

The idea that responsibility should depend on the agent having changed the course of events points in the direction of the but-for theory. The function of cause in relation to recipes and prediction points towards the NESS theory. The phenomenon of multiple causes, which have often to be weighed against one another, points to a quantitative theory. But whichever is favoured has to be applied in the light the law's commitment to vindicating rights and securing a fair distribution of risks.

2.6 'PROXIMATE CAUSE'

The theories about the specific qualities that an agency must possess in relation to the outcome in order to be its cause in law are often grouped under this rubric, though many other terms (e.g. adequate, direct, efficient, operative, legal, responsible) are also found in the literature. These limiting theories are invoked because if every causally relevant condition (cause-in-fact) is treated as grounding responsibility for the outcomes to which it is causally relevant, the extent of legal responsibility will extend almost indefinitely.

This alarming scenario would however be subject to independent legal requirements as regards proof, type of damage and lapse of claims through the passage of time. The theories in question therefore embody reasons for limiting the extent of legal responsibility. Different theorists however differently view the reasons adduced for limiting responsibility. Causal

minimalists treat all these theories as non-causal, in the sense that they embody grounds of legal policy other than the policy of holding the agent responsible for the harm caused by their action or intervention. Others treat some of the suggested limiting factors as causal and others as non-causal. It is indeed not open to dispute that at least two non-causal factors limit the extent of legal responsibility. One is the scope and purpose of the rule of law in question. No rule is intended to give a remedy for every conceivable type of harm or loss. Another concerns the aspiration of the law to achieve results that are morally unobjectionable. This rules out certain claims that would be inequitable on the part of the claimant or unfair towards the agent. It needs to be stressed that the grounds for limiting responsibility will not necessarily be the same in every branch of the law. In particular, the greater the weight attached to considerations of risk distribution the more likely it is that different limits will be appropriate in, for example, criminal, civil and public law.

2.7 ALLEGEDLY CAUSAL GROUNDS OF LIMITATION

Certain theorists reject causal minimalism, which involves a restricted notion of cause that is current in no extra-legal context. They propose grounds of limitation that reflect the causal judgements that would be made outside the law. They claim that these grounds have a basis in ordinary usage or in the metaphysics of causation (Moore 2000). The chief grounds proposed are that responsibility is limited (i) when a later intervention of a certain type is a condition of the harmful outcome (ii) when the agency has not substantially increased the probability of the harmful outcome that in fact supervenes and (iii) when the causal link involves a series of steps and ultimately peters out, so

that the outcome is too remotely connected with the alleged cause. They argue that in these cases the agency, though a causally relevant condition, did not cause the outcome.

The idea that responsibility is excluded when the harm in question was conditioned by a later intervention is conventionally expressed by saying that an intervening or superseding cause broke the causal link between agency and outcome. These 'breaks' are not conceived as physical discontinuities in the course of events. The metaphor derives rather from the fact that in an explanatory context a cause may be regarded as an intervention in the normal course of events. The most persuasive explanations of an outcome are those that point to a condition that is abnormal or unexpected in the context or to a deliberate action designed to bring the outcome about. If these criteria are then applied in attributive contexts, an agency will not be regarded as the cause of an outcome when that outcome is explained by a later abnormal action or conjunction of events or a deliberate intervention designed to bring it about.

A later event of this sort is contrasted with a state of affairs existing at the time of the alleged cause. The latter, however extraordinary, does not preclude the attribution of the outcome to which it contributes to the alleged cause. In practice this notion is widely applied in both civil and criminal law, as Kadish (1985) has shown. The use of these criteria of intervention in legal systems is said to be derived from common sense and to be consistent with treating causal issues in law as questions of fact. It is also supported on the ground that to attribute only a limited range of outcomes, whether achievements or failures, to human agents fosters a sense of personal identity

that would be lost if the attribution to agents was not limited in this way. If there were not such a limiting factor we should have to share our successes and failures with many other people of whom it could be said that but for their actions what we think of as 'our' distinctive successes and failures would not have occurred. For example the success of a student in an examination would be equally the achievement of all those (parent, teacher, doctor, grant-giver, girl/boy friend) who made it possible for the student to succeed. It would not be specially the student's.

The criticism of this notion of later intervention takes two forms. First, the criteria set out are too vague to govern decision in controversial cases. Suppose that a motorist negligently injures a pedestrian, who is then taken to hospital and wrongly treated for the injury. Instead of asking whether the mistaken treatment was so abnormal as not to be accounted a consequence of the motorist's negligent driving it would, in the critics' eyes, be better to ask whether the risk of medical mistreatment should be borne exclusively by the hospital authorities. Secondly, even if the criteria suggested for selecting certain conditions as causes are in place in explanatory inquiries they are not necessarily so in attributing responsibility. There is no good reason to transfer them from an explanatory to an attributive context. To do so in civil law may result in saddling a person guilty of momentary carelessness with massive losses (Waldron 1985).

Another limiting notion that has some claim to be regarded as causal is that of probability. According to the adequate cause theory, put forward by the physiologist Von Kries in 1886, developed systematically by Träger (1904) and

advocated in a contemporary form by Calabresi, an agency is a cause only if it significantly increases the objective probability of the outcome that in fact ensues. Objective probability is here contrasted with subjective foreseeability, but this probability must be relative to an assumed epistemic base. It is inevitably a matter of policy which base to choose, and whether to include information not known or not available to the agent when he or she or it acted.

Responsibility is excluded in relation to an outcome the probability of which was not substantially increased by the agent in question. This theory, long orthodox in German civil law, but increasingly supplemented by policy-oriented criteria, is intuitively attractive when the agent wrongfully exposes someone to a risk of harm to which they would not otherwise be exposed. For example, the agent wrongfully obstructs a pathway so that the claimant is forced to take a more dangerous route along a canal, and falls into the canal, sustaining injury. The obstructer is then the adequate cause of the injury. But one who wrongfully delays a passenger who is as a result obliged to board a later airplane, which crashes, is not the adequate cause of the passenger's death in the crash. At least on the basis of information available at the time, the probability of being killed in an air crash was not substantially increased by the delay.

There are however instances in which an agency substantially increases the probability of harm but the harm that occurs would intuitively be attributed to a later intervention. Suppose, for example, that in the example given a passer-by deliberately threw the claimant into the canal. It would be natural to

attribute any injury suffered by the claimant not to the obstruction of the pathway but to the act of the third person. This objection can be met by having recourse to the risk theory, a version of the probability theory with strong support in Anglo-American writing in both criminal and civil law (Keeton; 1963, Seavey; 1939, Glanville Williams1961). According to this theory responsibility for harmful outcomes is restricted to the type of harm the risk of which was increased by the agency's intervention. The harm must be 'within the risk'. But much then turns on how the agent's conduct and the risk are defined. Is the risk of falling into the canal different from the risk of being pushed into it?

As stated earlier, in law, responsibility for harm can rest on risk allocation as well as on causation. The risk theory has merits that are independent of its claim to explain what it is for an agency to cause harm. It can be treated as illustrating a wider principle that responsibility for harm is confined to the type of harm envisaged by the purpose of the rule of law violated. For example, if a rule requiring machinery to be fenced is designed to prevent harmful contact between the machinery and the bodies of workmen, a workman who suffers psychological harm from the noise made by the unfenced machine cannot ground a claim for compensation on the failure to fence. The fencing requirement was not designed to reduce noise, even though a proper barrier would have reduced the noise to such an extent as to avoid the psychological trauma.

The limitations set by the purposes of legal rules cannot be regarded as causal. They vary from one branch of the law and one legal system to another. It is

true that sometimes the purpose of legal prohibition may be the simple one of imposing responsibility for the harm caused by a breach of that prohibition. In that case the limits set by causal and purposive criteria coincide. But even in such a case it is a matter of legal policy which types of harm are to be compensated or to lead to legal and criminal liability. The purposive limits on responsibility have therefore either to be regarded as additional to those (later intervention, heightened probability) proposed by those who reject causal minimalism, or as replacing them. The latter view is consistent with causal minimalism.

Other proposed criteria of limitation are based on moral considerations. Theorists who regard fault as an essential condition of criminal or civil responsibility often argue that a person should not be liable for unintended and unforeseeable harm. There are problems about settling whether only the type of harm or the specific harm must be unforeseeable, and the moment at which foreseeability is to be judged. But foreseeability, though it bears some relation to probability, is clearly a non-causal criterion, and one that can apply only to human conduct, not to other alleged causes. Moreover some supporters of the risk theory argue that different criteria should govern the existence and extent of legal liability. Even if the foreseeability of harm is a condition of liability, sound principles of risk allocation place on the agent who is at fault in failing to foresee and take precautions against harm the risk that an unforeseeable extent of harm will result from his or her fault, provided that this is of the type that the rule of law in question seeks to prevent.

There is no reason to suppose that the law, when it engages in explanatory inquiries, adopts different criteria of causation from those employed outside the law in the physical and social sciences and in everyday life. However, even here, requirements of proof may lead to a divergence, for example, between what would medically be treated as the cause of a disease and what counts in law as its cause. As regards attributive uses of cause, the fact that the law has to attend simultaneously both to the meaning of terms importing causal criteria and to the purposes of legal rules and their moral status makes the theory of causation a terrain of debate that is unlikely to yield solutions commanding general agreement (Stapleton; 1988, Wright; 1985; Moore2000).

CHAPTER THREE

PROBABILITY AND LEGAL REASONING

3.1 INTRODUCTION

In this section, the aim is to explore the nature, foundations and manifestations of probability in legal reasoning. In daily life frauds, murder, conspiracy and many other legally proscribed acts happen. The essence of the judicial fraternity and law enforcement system is to maintain law and order. But the essence of the judicial system is to deliver justice that ought to be fair and acceptable to the parties involved.

In most cases offences are committed far away from the judicial and law enforcement parties, who are called forth to exercise justice and maintain law and order by determining innocence or guilt of the accused suspect. Since the arbitrating parties, that is, judicial system was not at the scene or party thereto at the time the offense was committed yet they are required to determine the case, to ensure justice and fairness are observed, natural reason has dictated that the accused be assumed innocent until proven guilty. The basic reasons to assume someone innocent is because if otherwise, it will mean one has already been declared guilty and this will be abuse of natural reason and justice. This will be biased opinion against someone even before subjecting him/her to a fair trial.

It is on this basis of ensuring a fair hearing, a fair trial, a right to self defense as dictated by natural justice that both the process of gathering evidence to be adduced against the accused and the process of determining how and in

what ways and why the accused is guilty that the judicial system has developed sound principles of providing evidence in courts and a similarly sound process of reasoning using that evidence.

It is on this note that it is felt fair and appropriate to delve at large in this section into the method of inquiry in court and judicial systems and thereafter explore how the evidence brought in court is treated in principle. This will clearly demonstrate how entrenched probability and causation are in legal reasoning and thereafter the grounds upon which they are found wanting in the quest for philosophical justice.

It is appropriate at this point to reiterate that the first task of a trial in court is to set forth the facts. The grounds upon which to determine the case must be fact- based and consequently the facts ought to be as accurate and relevant as possible. The greatest task of the trial court is to determine how probable or improbable, that is, the degree of probability or improbability of something or someone to have committed an offense. Despite the fact that one was not around, the judge through use of common reason can be able to comprehend how probable or improbable something is. It is on these grounds that evidence is crucial. That is, how relevant, consistent and probable is what is alleged considering normal condition. It is for this reason that for example O.J Simpson's case was interesting. The hand glove was too small to fit Simpson's hand, the accused person in the murder of his wife and her lover.

The process of determining how true, untrue, probable or improbable, corroborating or un-corroborating the evidence is inductively founded, though

deduction also is of paramount importance. That is to say that personal experiences of the trial judges are crucial. That means in order to determine the probability of an occurrence to have happen on the basis of induction one ought to know what to compare or contrast with. This is, according to Nyasani (2001:172), what is technically referred to as *ratio decidendi*, meaning the reasons for arriving at a particular decision or verdict. For example can you shoot yourself, break your leg and burn yourself with petrol and then smash your skull all in attempted but unsuccessful suicide? As a trial judge, or any ordinary person with moderate reason, this scenario is reasonably absurd. But yet in your determination of this absurdity you have never experienced exactly the above, but it is the power of reason that presents this as absurd. It is on the same ground that it is impossible for a notorious thief to commit crime at Nakuru and within thirty minutes commit another one at Mombasa.

Inductive reasoning as the basic mode of probabilistic reasoning in law proceeds from the premise that is known with high probability of happening to the unknown based on an equal degree of probability that it can or will or does happen. The power to confirm this is past events or experience. The central concern in this chapter is the examination of the philosophical tools developed to regulate the nature and extent of probability in legal reasoning. How philosophically praiseworthy are these limiting tools of the nature of probability in legal reasoning?

3.2 EVIDENCE INQUIRY AND ADMISSIBILITY

Evidence is often presented in a tense, emotional atmosphere in a courtroom long after the event in question took place. The object of the law of evidence is to assure a high probability that questions of fact are resolved accurately and correctly.

The current criteria for admissibility of evidence originated from a case known as *Frye v. United States* in 1923 in which the defendant attempted to introduce the systolic blood pressure deception test (a precursor to the lie detector test) into evidence. The court had never heard of this test and decreed that first a scientific principle introduced in court must be generally accepted by the scientific community. The case gave rise to the "*Frye rule*", which states that expert witness should be allowed to give evidence provided that their conclusions derive from a principle that is "sufficiently established to have gained general acceptance in the particular field to which it belongs". This means that a judge, in pre-trial hearing, can determine whether expert witnesses and their testimony meet a reasonable scientific standard. The implications are that, courts should admit scientific evidence only if it conforms to scientific standards and is derived from methods that are generally accepted by the scientific community as valid and reliable. Such a test promotes sound judicial decision making by providing a workable means of screening and assuring the quality of scientific expert testimony in advance of trail. This set a precedent to searching for and admitting only professional experts' evidence for example a doctor's, engineer's or a police officer's report. Their evidence is sought as they are the experts in their relevant

fields. The rule is that you cannot rely on a teacher's evidence concerning the technical specifications of a spacecraft, as he is not a relevant expert.

The materials introduced at the trial are ordinarily restricted to items of great probative value; that which may arouse unreasoning passion are ordinarily excluded.

3.3 PROBATIVE VALUE AND TRUTH

When judging the reliability of eyewitness testimony, you must consider whether the witness was in a position to accurately observe, and you must also consider whether the witness's observations may have been distorted by expectations or prejudices. But even if the witness observes events correctly, the testimony may still be unreliable. The thing to consider when evaluating the "probative value" of testimony (the reliability or trustworthiness of the evidence) is: Does the witness remember what he or she observed?

The accuracy of a person's memories is a difficult thing to gauge. Memory is a complicated process, and as all of us are painfully aware, our memories can play tricks on us. Elizabeth Loftus (1992:78) describes the problem thus: Human memory does not work like a videotape recorder or a movie camera. When a person wants to remember something, he or she does not simply pluck a whole memory intact out of a "memory store. The memory is constructed from stored and available bits of information; any gaps in the information are filled in unconsciously by inferences. When these fragments are integrated and make sense, they form what we call "memory".

Thus some of our memories of events are there because that is exactly what we observed, but some of our memories are parts that we created - from our assumptions, expectations, beliefs, imaginations - to fill in the gaps. The problem is we can't tell which is which, so we may honestly testify to something we distinctly remember observing, but which is in fact a part of our "memory" we filled in (but did not actually observe).

Loftus (1992:94) offers this example of how honest people can confidently fill memory gaps with elaborate illusions. "Some years ago during a course on cognitive psychology I gave my students the following assignment: I told them to go out and create in someone's mind a "memory" or something that did not exist ... One group of students conducted their study ... as follows: Two female students entered a train station, one of them leaving her large bag on a bench while both walked away to check the train schedules. While they were gone, a male student lurked over to the bag, reached in, and pretended to pull out an object and stuff it under his coat. He then walked away quickly. When the women returned, the older one noticed that her bag had been tampered with, and began to cry, "Oh my God, my tape recorder is missing!". She went on to lament that her boss had loaned it to her for a special reason, that it was very expensive, and so on. The two women began to talk to the real eyewitnesses who were in the vicinity. Most were extremely cooperative in offering sympathy and whatever details could be recalled. The older woman asked these witnesses for their telephone numbers "in case I need it for insurance purposes". Most gladly gave their number.

One week later an "insurance agent" called the eyewitnesses as part of a routine investigation of the theft. All were asked for whatever details they could remember, and finally they were asked, "Did you see the tape recorder?" although there was in fact no tape recorder, over half of the witnesses "remembered" seeing it, and nearly all of these could describe it in reasonably good detail. Their descriptions were quite different from one another: some said it was grey and others said black; some said it was in a case, others said it was not; some said it had an antenna, others claimed it did not. Their descriptions indicated a rather vivid "memory" for a tape recorder that was never seen.

From the above illustration, it is clear that the witnesses have proved theft that never occurred. A crime that is committed and yet it is not there in the first place.

Other problems can arise with identifications on the basis of witness memories. "Photo-bias" can play tricks on a sincere person's memory, as indicated by this experiment at the University of Nebraska: "An hour or so after "witnesses" watched some "criminals" committing a "crime" they looked through mugshots that included some of the "criminals" they had seen. A week later, lineups were staged and the "witnesses" were asked to indicate those who had taken part in the original "crime". Eight percent of the people in the lineup were identified as criminals; yet they had neither taken part in the "crime" nor been among the mugshots. A full twenty percent of the innocent people whose photographs had been included among the mugshots were falsely identified also. Despite the fact none of these people had committed a crime,

nor had they ever before been seen in person, they were recognized from photographs and identified as criminals.

Thus seeing photographs can cause an "unconscious transference" in which someone seen in one situation is confused in memory with persons from a different situation. And obviously similar memory tricks can occur without photographs. After being held up at gunpoint, a railway ticket agent observed a police lineup and confidently identified a sailor as the armed robber. However, further evidence proved that the sailor could not have been the robber. It turned out that the sailor had purchased tickets from the railway agent on three occasions prior to the robbery, and thus when the agent saw the sailor in the lineup the sailor looked familiar. The agent apparently made an unconscious transference of the memory of the ticket-buying sailor to the event of the robbery.

In short, there are many ways that a sincere witness's memory may make mistakes: It may be influenced by subsequent events (such as seeing a photograph); it may fill in with other beliefs and assumptions (including prejudices); it may be colored by the way questions are asked; it may latch onto a current image and substitute that image for a fading and fuzzy memory (as when a witness substitutes the image of the person now presented who looks somewhat like the criminal for a vague memory of the actual criminal).

In spite of all this, eyewitnesses may testify accurately - but it is important to be aware of the pitfalls and dangers of even the most honest and sincere eyewitnesses testimony and to realize that when an attorney is questioning the

way lineups were carried out or the way identifications were handled she may be raising very significant questions. (When the appeals courts throw out convictions on the basis of unfair identifications processes - such as biased lineups - they are not freeing criminals on silly technicalities; rather, they are protecting all of us from the real danger of mistaken identifications).

3.4 FACTS VERSUS PROBABILITY

The following court case illustrates how a person can be convicted and probably hanged due to a false testimony.

In 1976, a Dallas policeman was brutally gunned down as he approached a car he had stopped. In 1977, Randall Adams was convicted of the murder. Sentenced to death, he spent the next twelve years on death row. He was finally released when evidence that had been hidden during the trial was uncovered and a key prosecution witness admitted that he (and not Adams) had killed the policeman, that Adams had not been present, and that he had testified against Adams to avoid being blamed himself and also to receive lesser sentences for other criminal charges.

During the trial a star witness for the prosecution was Emily Miller, who testified that she drove slowly past the stopped car as the policeman approached it. She identified Randall Adams as the man she had seen in the car that was stopped by the policeman, shortly before the policeman was murdered. She testified that she had picked Adams out of a lineup, which was true.

What was left out of her testimony, however, was much more important than what was included: She came forward only after she learned that there was a large reward for evidence in the case; she initially reported that the man she had seen in the car was African-American (Adams is white); and when she looked at the line-up, she first identified someone other than Adams - finally identifying Adams only after she was told that she had picked the wrong man, and after Adams was pointed out to her as the primary suspect.

The nature of legal controversy and the written pleading determine what assertions of fact each party must prove or disprove to win the case, and an item of evidence that at best has a remote bearing on the factual issues must be excluded as irrelevant or immaterial. A judge prefers direct evidence (such as an official document or a witness assertion of immediate knowledge of the question at issue) to in-direct or circumstantial evidence that merely tends to establish the issue by proving surrounding circumstances from which the principal fact may be inferred. In addition to being relevant, evidence must be competent, that is, it must not fall under an exclusionary rule. Obviously if the evidence is documentary (e.g. a birth certificate introduced to prove a person's age) or if it is real (e.g. a bloody garment exhibited to prove that the victim suffered injury, there can be a question only whether the proffered evidence is itself incompetent. The courtroom presentation of documentary evidence has been complicated by new computer technologies and the digitalization of information, which make the successful forging of texts and photographs far easier than previously and consequently with far reaching implications to determination and dispensation of injustice.

3.5 PRINCIPLES OF EVIDENCE ADMISSIBILITY

In legal reasoning, the paramouncy of searching, adducing and accepting evidence is of great concern. To conclusively fulfill these tasks elaborate method of inquiry is vital. The problem of lacking evidence is first identified, preliminary suggestions relevant to the case in form of general hypotheses are proposed, additional facts are collected, a hypothetical explanation is formulated, crucial consequences of that hypothesis are inferred and tested and the results in form of judicial rulings or conclusions are made. In an inductive investigation process conclusive or total evidence is hard to achieve that entails absolute certainty is hard to arrive at. But with carefully, methodically guided reasoning it is possible to achieve reliable solutions. In a court of law the ways in which acceptable evidence is collected and applied are usually subject to special restrictions in a system of justice where concern for fairness and truth is crucial.

Judges in determining facts are usually presented with several inconsistent accounts and explanations of an event. It is the judge's task to reason, to identify, prefer and select from the plethora of alternatives, conflicting hypotheses offered that which best explains within the bounds of reasonable probability the mass of evidence. This inductive process of selecting evidence is restricted. The judge has the duty to restrict and limit the submission of evidence by the involved parties by carefully applying a body of principles designed to ensure that evidence is assessed fairly and competently. These are the principles of law of evidence.

A witness's evidence can be dismissed on the ground that (s) he lacks the needed appropriate expertise in the field, and therefore lacks authority on the subject. For example in the controversial case where warders at King'ong'o prison are alleged to have bludgeoned to death inmates who allegedly had attempted to escape, hereinafter, as notoriously in the mass media, referred to as the case of King'ong'o six, a pilot's or a dentist's evidence lacks ground as compared to that of a pathologist in an attempt to explain the circumstances that led to the death of the six prison inmates in the determination of guilt or innocence of those implicated in their death.

Another principle appropriated in the courtroom in the regulations of evidence is called "hear say rule". This well-known but equally controversial rule of evidence excludes "hear say" testimony by a witness about some fact, based on what some other person has said or written. Under the common law, hear say is defined as a message taken from out-of-court statements through words or conduct and offered in evidence to prove the truth of the matter expressly or impliedly asserted. The common law hearsay rule excludes statements if their logical relevance depended on the truth of the matter expressed or implied.

It is important to note that rules governing judicial admissions of scientific evidence have considerably changed over the years. Since about thirteenth century, the general judicial rule has been that witnesses may testify only about what they perceive with their five senses. When an area is outside common sense knowledge, a judge may hear testimony from a witness qualified by training, knowledge, skill or experience in a particular subject, for example in relation to the famous *Virginia Edith Wambui v. Joash Ochieng Ougo and*

Omolo Siranga, hereinafter, or the commonly called, The S.M. Otieno case, the late re-known university professor H. Odera Oruka was asked to adduce his philosophical understanding relating to the Luo culture and burial practices, as he was deemed qualified by training in that field.

In the case of evidence by a witness, it is important to consider four dangers: perception, memory, narration (ambiguity in the witness description) and sincerity. The witness should have good perception capacities and the circumstances must be enabling for one to have perceived correctly. In the appeal case of *Francis Waithaka Nduati v. Republic*, the appellant successfully challenged a lower court's sentence of seven years imprisonment, twenty strokes of cane and the mandatory five years of police supervision upon release from prison on the circumstantial ground challenging his identification by the prosecution witnesses who alleged they saw him among the robbers during the night of the robberies. The witnesses' capacity to perceive at night, without adequate lighting system was the crucial issue of identification raised by the appellant and upheld by the learned judges. The witness ought to have trustworthy memory and unambiguous narration free of contradictions and sincere, that is, free of malice and not hostile.

The ground of controversy by hearsay rule is that the rule requires courts in a preliminary factual determination to distinguish between intended and unintended assertions. This distinction between unintended and intended assertions admittedly is untested with respect to the perception, memory and narration of their equivalents of the actor and these dangers are minimal in the absence of an intent to assert and do not justify the loss of the evidence on

hearsay grounds. No class of evidence is free of the possibility of fabrication, but the likelihood is less with an unintended than with intended communication. It is true that statements containing express assertions may also contain implied assertions qualifying as hearsay and susceptible to hearsay objection. This situation arises when the matter, which the declarant intends to assert, is different than the matter to be proved, but the matter asserted, if true, is circumstantial evidence of the matter to be proved. In this situation too, the statement is subject to a hearsay objection.

The difficulty hearsay creates for the judges about fact is that it rests in part on the truthfulness and competency of some third person who is not present in court, from whom the witness has received his information. The truthfulness and competency of that other person to be tested and fully cross examined, the rule in effect, requires that other person to come forward and testify on the matter and render it trustworthy evidence.

Revised out of long experience to protect the integrity of the legal process, principles of the law of evidence forbid certain kinds of evidence to be accepted by a court because they may be misleading or irrelevant. Procedure rules concern the procedures, as when the evidence that has been unlawfully obtained is excluded so as to protect the system of law enforcement and the police from abusing and forcibly extracting evidence from witnesses.

Admission of unlawfully obtained evidence, even if it is highly relevant, either through, force, coercion and threats may encourage future abuse and unlawful extraction and obtaining of evidence by police. The cases of where suspects

are brought in court on wheel chairs and or alleging torture by police ostensibly to extract confessions, threats and use of force on suspects to sign testimonies they don't know about all need to be disallowed in the courts.

The principles of fairness in both procedures and in the admission of evidence impose essential restrictions on the inquiry and acceptance of evidence. Fairness is crucial in establishment of truth since in the long run justice is nothing but fairness and right. One must ensure fairness and moral right in the process of acquiring and in acceptance of evidence in a court of law if and only if ultimate justice as a moral good will be upheld and determined.

3.6 STANDARDS OF PROOF

How probable or improbable for an event to have happened is the grounds upon which facts are established in courts. As alluded earlier, in a trial, the judges in an effort to establish facts principally relies on probability in their inductive legal reasoning. Copi (1997:617) aptly puts it "once the truth of certain factual premises has been presumed, conclusions may be drawn from those premises with deductive certainty. But the facts upon which such reasoning is built must first be established inductively, and therefore only with probability. The degree of probability with which the facts can be established often becomes, in law the measure of success".

In determining the probability of (unlike theoretical) simple factual events, it is impossible to express them in numerical fractions, and therefore mathematics of probability calculus cannot befit them. Because since it far

much depends on our belief and conviction and dependent on individual personal experience, the probability that we can talk of is subjective and not objective.

Subjective probability entails less, more, remote or likelihood for an event to happen depending on an individual conviction. But the definiteness of how probable is quite impossible. This case of subjective, unlike objective probability, brings the problem of how then can probability be rationally used in legal reasoning. Though impossible to assign a numerical strength to a probability, the most rationally compelling way is to characterize the general degree of probability that the strength of the evidence justifies. To guard against the possibility of attacks to such a process of assigning degree of probability in legal reasoning as vague, arbitrary, subjective and un-universalizable, there are designated specifications of degrees of probability technically called "standards of proof" or "burdens of proof". Thus the degree of probability of a contested fact may fulfill or fail to fulfill the different "standards of proof" or "burdens of proof". The three distinct standards or burdens of proof are "preponderance of evidence", "clear and convincing evidence" and being "beyond any reasonable doubt".

The presumption of innocence until proven guilty in criminal law, the standard of proof required is extremely high. This is because it is generally regarded as more evil to mistakenly subject someone to punishment for no wrong committed, than for mistakenly release someone who has committed a crime. Therefore a high standard is to ensure that only the wrongdoers or criminals are actually punished and no non-criminal is punished as a result of lapse of the standards required. This standard of proof requires a suspect to be

conclusively proved guilty beyond any reasonable doubt. This implies that the probability of an accused being guilty is so great that no reasonable person confronted with the evidence adduced against him, would believe the defendant innocent. The *Dan Owino Owano v. Republic*, a criminal case, the appellant was arrested and charged of being in possession of heroine.

The adduced evidence as matters of fact to the case is that he was arrested in a room that the two police officers found him, searched and got a packet of heroine. The appellant challenges the lower court's decision and conviction that there was sufficient evidence to prove possession of the drug, as the room was a public place and that there was no evidence that the appellant was the only occupant of the room. Even though during the case he was entitled to keep quiet, as he did, the magistrate was equally entitled to believe the evidence of the two officers and if that evidence was believed, it proved beyond reasonable doubt that the appellant was the only person who could have been in possession of the drug. The magistrate was convinced beyond any reasonable doubt on the grounds that the drug was found in clothes identified as belonging to the suspect, no trace of any other person was found in the room, despite it being a public place by his having rented it had taken control of it and privatized it for his own use at that material time.

In civil cases there is an equal presumption of correctness by both the defendant and the plaintiff. As the judge is only required to determine matters of fact only with a degree of probability, the jury needs to decide who among the contesting parties claims are more likely to be true than not, that is to say, that which is founded and supported by a preponderance of the

evidence. Preferring one account to the other, the baseline is finding where there is greater probability supportable by preponderance of the evidence. It is the party seeking redress for injury that in civil cases is supposed to provide the burden of proof, that is, to prove it has been wronged. The court requires as its indefatigable evidence, *that it is more probable that the injury complained of was caused by the defendant than that it was not (Emphasis mine).*

In *Ahmed Kipygon Tanui v. the Principal, Sunshine Secondary School and Another*, the judge ruled, "I am convinced that the plaintiff has a case with a probability of success. He is likely to suffer irreparable injury if I do not make the orders sought". The plaintiff competently provided a preponderance of the evidence that he will suffer pecuniary damages, and if forced to repeat a class, as the school wanted him to due to his low marks, he will suffer psychological and mental trauma, which will affect his performance. The judge competently raised on the one hand the school's interest in enforcing its regulations on academic grades that must be complied with and on the other the student's interest and right to receive timely education within a supportive environment. The school unlike the student lacks support by a preponderance of the evidence that it will suffer or gain in any way.

The standard of clear and convincing evidence is required when the plaintiff is required to prove his case with evidence strong enough to establish in anyone a clear and firm conviction of its truth. It is also paramount in cases involving medical intervention where persons can exercise their right to refuse further medical treatment if they are no longer competent. The person refusing the

continued medical treatment is principally required by law to issue clear, that is unambiguous, frequent requests to be let to die. The patient must have convincing reasons or evidence as to why death is preferred, for example, there is no possibility of benefiting and returning to normal health despite the continued medication and the ultimate foreseeable outcome proved by a competent physician is death.

This clear and convincing standard of proof is well demonstrated in *Cruzan v. Director, Missouri Department of Health* case. Nancy Cruzan was in a "persistent vegetative state" and never to recover consciousness for eighth years. The family wanted the feeding tube withdrawn to allow her to die and the lower court denied them the go ahead prompting them to seek redress in the supreme court. "The supreme court did not decide whether it was permissible to withdraw Nancy Cruzan's feeding tube. It accepted the right of the state of Missouri demand, before permitting this to occur, clear and convincing evidence that it was what Cruzan would have wanted. Then by a curious coincidence, shortly after the supreme court issued this judgement, former friends recalled that she had said things to them indicating that she would wish to die, if she were ever in such a situation. This time the state of Missouri did not oppose the Cruzan's application. The lower court accepted that there was now "clear and convincing evidence of their daughters desire not to have her life sustained in this situation and it allowed the feeding tube to be withdrawn (Singer, 1996:62).

3.7 PRESUMPTION OF INNOCENCE

Another important concept in legal reasoning is presumption of innocence as exemplified in this hypothetical case: at noon, Paul is seen going to John's shamba and he plucks two maize cobs. When shouted at, Paul runs away. He is chased by three neighbours and caught red handed with the cobs. Paul's hands are tied with a rope and is led to the police station. He did not have the consent of the owner to pick the cobs. He is a thief caught in the act. The greatest moral and philosophical issue then arises. Is he in the eyes of the law honest and innocent until he is proved guilty beyond all reasonable doubt? Why should the state waste resources lining up witnesses to narrate the whole story?

Presumption of innocence is important for two reasons. First and foremost it is simply the correct manner of reasoning. The burden of proof rests on John who makes a claim against Paul to show that the shamba is his property; Paul trespassed onto it; and, without a claim of right stole the maize cobs.

Another reason for favouring a strong presumption of innocence is that it has less to do with logic and more with our principles of individual freedom and justice. Individuals' rights cannot be sacrificed without the strongest and most conclusive proof. It must of necessity follow that placing the burden of proof on the accused person violates principles of liberty as well as logic.

In this chapter we have examined the method of inquiring into the evidence. Crucial to note is that the judge is not himself or herself involved in this inquiry, but this is the work of the police. The judge only rationally tries to connect the probability of the alleged events to have happened. The principles

responsible for the regulation of the admissibility of evidence in order to ensure fairness have also been examined. The lack of the logical foundation of using numerical/mathematical probability in legal reasoning led to the examination of the foundations, nature and use of standards of proof as the rational gauges of belief of probability in legal reasoning. The intention is not to discredit use of probability but to prompt honest and urgent ways and alternatives to either strengthen it or replace it altogether.

CHAPTER FOUR

PROBABILITY, SUBJECTIVITY AND LEGAL REASONING

4.1 INTRODUCTION

The judicial system has tremendous powers over people's lives. Granting, or allowing judicial systems such powers directly expresses our faith in an institution that is central to our vision of democratic governance, and our confidence that judicial verdicts can be fair, unbiased, accurate and ultimately objective in relation to ideas of natural justice and an ideal towards an egalitarian society.

However, in recent years, many concerns have been raised about the judicial systems viability, accurateness, fairness and objectivity if at all justice can be considered as a social ideal. One primary concern is that judicial systems has become inefficient, hardly trustworthy and serve as a drain on limited judicial resources. More serious and socially threatening concerns have also been raised about the quality and integrity of the verdicts and rulings arrived at by our judicial system. Many critics of judicial system believe that judges are more frequently than not biased, incompetent and apathetic, and as such, render verdicts that are unprincipled, un-procedurally arrived at, previously and externally determined and therefore consequently unjust.

These claims squarely touches on the judicial integrity and independence. Judicial integrity and independence lies on how viable and morally acceptable they exercise their faculties of reason and intellect in arriving at their verdicts. Claims of mechanical dispensation of justice that critically borders arbitrariness of determination and dispensation of justice have also been

raised against the judicial system. There is a concern over the widespread negative perception that the public has of the judicial system. It seems that the public often no longer trusts judges to render fair and principle verdicts. As a result, the media, members of the legal profession and the public itself, has questioned the legitimacy of the jury system.

Technically to my understanding they are questioning the basis and foundations upon which the judicial system reason and determine their verdicts. That is, in other words the procedure of reasoning in order to reach the verdict. This is to mean the veracity of reason as the ultimate ground of verdict determination is put in to question.

In this section the intention is to critically examine the inherent weaknesses of probability as a standard tool incorporated in legal reasoning. The contributions of probability to the subjectivity of legal reasoning will also be explored.

What are the philosophical implications of using probability as a core concept in inductive reasoning in the process of legal reasoning? Is it intelligibly appropriate to speculate that the problems of induction relate directly or indirectly to subjectivism in principle and consequently in practice contribute to miscarriage of justice? How reliable is probability as a standard tool of legal reasoning?

In this chapter, in respect of the above raised philosophically relevant concerns, I expect to critically explore the nature of reasoning, nature and

capacity of individual judgemental abilities and the issue of precedents in legal reasoning.

4.2 THE PROCESS AND NATURE OF LEGAL REASONING

As alluded earlier, in the last chapter evidence gathering in order to document, shape and corroborate facts is through a process which is chiefly inductive. The vitality of court trial is to set facts straight before the determination of verdict. It is this that is being referred to as the nature and process of legal reasoning.

The capacity of the reasoning faculties to know the degree of the probability about a certain event far much depends on the past individual experience. This is why as a judge you can't accept that someone committed two crimes at two separate places simultaneously or that one committed murder by virtue of just sternly looking at the person. The judges, just as any common man's experience strongly shows these as extremely improbable scenarios. So at the root of the problem of judicial verdict determination is the problem of induction. By the judge relying on the past experience is there guarantee that the past is like the present or will be like the future? In other words how viable, reliable and rationally compelling is it to rely on the past as the basis of individual's conviction that something similar or dissimilar can or cannot happen now or in the future? Here without defending induction, the central question is how (ir) rational is it for a judge to rely on induction as the basis of his determination of a case? How prejudicial and precarious does the unresolved issues of induction affect the quality of judicial verdicts? The problem of induction can be captured thus:

What reason is there to suppose that the future will resemble the past, or that unobserved particulars would resemble observed ones? Are mere circumstantial resemblances between past and future events a rationally firm ground to infer resemblance of the two?

In the process of determination of the degree of probability the basis is induction and this consequently makes the degrees of probability to be subjected to the same basic question surrounding induction. That is, how rational or irrational are the degrees of probability used in law? Here, in line with the objection directed to induction, the same confront the degrees of probability. That is, they are irrational. They cannot be salvaged as they have worked in the past or they are now ideally serving the judges or they will in future ideally serve the judges in verdict determination.

This problem transcends induction *per se,* and the whole realm of knowledge and consequently nature of justice itself. This shows that justice is not an absolute but a relative term, not a ultimate but an ideal social good. The very same way that doubts at the certainty of knowledge are cast reducing it to tentativity, similarly do the same fate meet the process of administration of justice. The administration of justice just like human knowledge is reduced to a tentative enterprise and subject to being fallible.

4.3 PROBABILITY AND PRECEDENTS

In the courts, when delivering judgments there is the requirement of substantiating the grounds of the judgment. This is usually done by referring to previously determined cases in the courts. Nyasani (2001:127) informs that a precedent, in a legal context, means a judicial decision that serves as an authority for deciding later or future cases, and in so doing, upholds and secures the principles of *stare decisis*. It is inherently a reported decision to which courts not infrequently refer for authority rather than depending too much on textbook authorities.

The precedents are intended to act as the authority on which and by which the judges' convictions that his verdict is sound is grounded on. Precedents are previously determined cases, relevant, related and similar to the one in hand now. The present case and the cases quoted as its precedents must have grounds of similarity. In this way, in other words precedents provide the inductively relevant ground upon which the determination of verdict can be possible. Precedents conclusively prove that induction is central in law and in verdict determination.

Probability in legal reasoning as an inductive mode of argument, as Nyasani (2001:136) notes, may often be coloured or characterized by such parallels as may draw significantly from both hypothetical and analogical examples...The only problem is that such hypothetical or analogical situations may be flawed or defective and possibly based on falsehoods *ab initio* that they may fail to capture or portray a plausible simile".

As such precedents provides, authenticates, corroborates and vindicates the nature of and the degree of rational proof that the judge is convinced as relevant in a given case. Precedents edges further the concern to know how valid, relevant and important is probability in legal reasoning.

4.4 CRITIQUE OF PROBABILITY IN LEGAL REASONING

In the process of judicial reasoning, judges' mind, like any other human mind, according to Nyasani (2001:133), "still functions according to the rules and laws of logic and invariably approaches issues using analytical tools, techniques and procedures predominantly featuring in the category of techniques and other innovative skills are inevitably the application of syllogistic procedures and specifically the use of deductive and inductive modes of reasoning."

In legal reasoning, Nyasani (2001:135) notes that there are "argument which may either be hypothetical or analogy based or simply probability based. Since these arguments may be presumptively probable or inconclusive for lack of conclusive evidence, the judge must use different criteria of collecting relevant (albeit relative) evidence in order to bolster the conclusion that he will ultimately reach and affirm. In the circumstances then, the conclusion reached and affirmed is the *best and probably* (italics mine) the only one any reasonable man can reach under the circumstances."

When you consider probability as a concept that entails our degree of rational belief then the problem arise concerning "our belief that probably something happened or was caused by someone" versus "the actual or factual reality

surrounding the happening of that particular incidence. In other words this is the problem of "facts" versus "belief" about something that is, subjectivity versus objectivity of probability in legal reasoning.

It is imperative to note that our degree of belief (whether high or low) concerning a certain event before a court of law, like murder, does not entail in any way the facts of that event with such a degree of absolute certainty. An event is nothing but the absolute occurrence of certain facts. This inconsistency that degrees of beliefs do not entail certainty is the ground upon which erroneous judgements do usually happen. That is, when delivering a judgement, the judge relies on the degree of belief that he considers high or low that someone did something and therefore guilty or vice-versa.

The degree of belief held by the judge does not in any way guarantee certainty. This means that the accused person may not have actually committed the crime but the circumstances surrounding his case points towards him being guilty, that is, he committed the offence. If the judges holds a high degree of belief that the accused committed that crime simply because of the existing circumstantial evidence that shows a high degree of probability that he committed that crime, it might turn out or actually it may be true that the person is not guilty. This demonstrates the pitfalls of the subjectivity of the principles of standards of proof.

The inconsistency of the concept of probability is well exemplified when the accused is assumed innocent until proven guilty rather than being assumed guilty until proven innocent. The underlying assumption here is that of

probability. That is, the person accused "may be innocent or guilty", but it is within the process of trial by the jury that he will be proved either way. If the person is cunning or tricky during the trial or hires an experienced lawyer he may win the case, despite being guilty. If the person is under fear or inexperienced about court process he may be condemned as guilty despite being innocent. That is, in the first case he may show his innocence by driving at low or nought probability that he committed the offence. While in the second case, the person fails to show his innocence despite the high probability that he committed the offence.

Remember we are arguing that probability does not entail certainty that A committed B. Let us cite an example, a hypothetical one to exemplify the point: A enters into a commercial deal (contract) with B and C to supply D with building materials. D is a conman with a number of court cases pending. He is wealthy and influential and can hire any lawyer irrespective of the fees. D hires hit men to kill A. He does this in order to escape paying the party supplying him with building materials. B and C goes for the money from D. D refuses to pay alleging that he paid it to A before he met his untimely death. Remember that A, B and C had entered the contract orally. There are therefore no records to produce in court.

The wife of A, suspects Q a brother to A as the person who is responsible for the murder. A and B had a long running court battle over 200 acres of rocky land at Ngong'. The wife of A, upon seeing the body of A at the ditch implicates Q with the murder. Q is arraigned in court charged with murdering A (or conspired or planned etc) Q at the time of judgement is under mental and

psychological duress and fear since this is his first court case ever since he was born. He didn't even hire a lawyer. He fails to prove his innocence. The judge when delivering the judgement considers a high probability implicating Q to the murder. For example, he had been issuing A with verbal threats. Q is also said to have gone to Nakuru where A also had gone just moments before he was murdered. Q is sentenced to hang.

This case aptly demonstrates the point that there is a great inconsistency between the judges' belief that is based on probability and the actual facts that may surround a case. The judge delivers the verdict subject to high probability of circumstantial evidence implicating Q to have murdered A. But since even the investigating team was unable to link D with A's murder who is the actual cause of A's death, Q receives a miscarried justice.

In as much as the concept of probability in legal reasoning appears so paramount and important it has some fundamental flaws that ought to be counteracted in a more profound and rational way. This flaw is that it gives undue exercise of "personal rational prejudice" on the part of the judge in total disregard of the factual evidence or actual circumstances that surround the case as it actually happened. This factual evidence, which is always scanty or lacking and therefore must be implied or pointed out by way of probability is so crucial in court cases determination.

It ought to be the original, absolute, certainly true facts upon which to deliver the case in a straightforward way. The search for this factual truth involves various methods like use of detectives to search for truth, cross examining the

accused, calling for witnesses, or in extreme but unorthodox way torturing the suspects.

The critical point to consider is that probability concept despite containing and expressing the nature of the degree of rational belief that the judge may hold, it is a weak concept and therefore unreliable as it does not in any way contain or express absolute certainty or truth or the facts that surrounded the case at the material time of occurrence. This lacking of the material facts constituting the irrefutable evidence upon which to deliver the judgement gives a lee-way for the judges to express or exercise an unbound freedom with respect to what they do consider as a high or low probability that someone committed an offence and therefore guilty or innocent.

How "rational" is "the nature of the degree of rational belief" is the contentious issue. This is because the judge and most other people involved in the delivery of judgement (e.g. investigators, lawyers, witnesses, jurors etc) were probably not around when the offence was committed. Being "rational" is not equivalent to "truth" or "actual facts".

The scales of the degrees of rational beliefs are not calibrated in such a way to entail certainty but to correspond to it. The judge being a human being can exercise, as he has freedom, his rational whims in such a way that he may deem fit. To him this will be rational and will correspond to his degree of rational belief but this may differ to that of another judge, or to that of the accused or the general public. This, I think is the ground of making appeal. That is, you ask the case to be reconsidered if one is not satisfied with "the judge's

degree of rational belief". Nyasani (2001:141) captures the perils of relying on probability thus; "the court of appeal judges may differ in their final decision. This is perfectly normal phenomenon and a perfect expression of the freedom of thought and professional application as far as the judges and *their modes of thinking* (italics mine) are concerned. This scenario aptly captures the problems that are occasioned by the use of and dependence upon probability, causation and the concept of the degree of belief".

But even appealing and re-appealing do not fully remove the problem occasioned by the concept of probability in legal reasoning and legal judgement delivery. Appeal and re-appeal gives a chance to the trial judges to re-examine the grounds and evidence and how reasonable and true they are in relation to reality and in that light how probable and with what degree the accused person is guilty or innocent.

The discretion with which the judicial system procedurally and process-wise deals with the case on the basis of induction which itself is fallible, rationally risky and inconclusive shows that the verdict reached at the end is laden with the individual's or groups' rational prejudice couched in their conviction that one did or did not commit a crime and thus guilty or innocent. That is, probability does not bar personal prejudice and subjective influence in judgment delivery. How you deliver the judgment to a large extent is how you personally perceive the case. This is what is being referred to as subjectivity in judicial verdicts.

In this chapter the subjectivity brought about by the concept of probability has been examined. The reliance on induction in legal reason was singled out as the central source of the problem of probability and hence subjectivity. The analysis has shown that the verdict is usually tainted with personal rational prejudice. This makes court verdicts to be dependent on the judges' rational prejudice. The consequences are that justice fails to be objective but subjective. This brings about the concern that justice cannot be objective and certain but just a relative ideal in the society.

Being ideal and relative means that it fluctuates in relation and in tandem with the subjective rational element of the judge. This fluidity of justice rooted on reason brings about the problem of probability in legal reasoning. Were it that there is no room for the judge to maneuver in verdict determination, I think there should be no fluidity of justice. Verdicts could possibly be same in terms of rational appeal. No one could possibly feel short charged in a case and therefore no need for the appeals and re-appeals.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1 INTRODUCTION

There are two ways of reasoning: inductively and deductively. In courts, the legal reasoning despite utilizing the two modes of reasoning, inductive reason is more profound and vital in the establishment of facts upon which the deliberation of the verdict is to take place. The possibility of establishing the certainty of facts is impossible and the only recourse is to develop and use degrees of probability. The degrees of probability are intended to express the rational belief that the judge has about a given case. The concept of the degrees of probability is only possible through the use of probability, itself an upshot from induction.

The inherent weakness of induction is that it is irrational as it flourishes on the belief (or is it assumption?) that the past is like the future. That is to say induction in law is grounded on the personal individual experience of the past and how a person is convinced that certain present or future events are rationally justifiable or unjustifiable. It is this underlying belief or expectation that the past resembles the future fails to be rationally convincing. Yet it is the core spine of inductive reasoning in law.

It is at this point that the lack of rationality in the process of inductive reasoning allows personal rational prejudices. That is, there lacks a universally binding, objective and absolute way of determining the cases. It is at this point the dispensation and determination of justice becomes threatened. The human

mind capable of being fallible can make mistakes and in courts this translates into miscarriage of justice. It is the inconsistency between what a judge arrives at as his verdict and what others believes to have been the case that well demonstrates what the difference between personal beliefs courtesy of inductive reason can bring about.

It is this inconsistency that grounds the negative views about the possibility of miscarriage of justice during verdict determination. The above being the case the central ultimate philosophical question to be addressed in this concluding chapter is how can the legal reasoning process succeed in lessening the inherent weaknesses of inductive reasoning.

5.2 RECAPITULATIONS

In Chapter one the research problem was identified. That is, what are philosophical implications of using probability in legal reasoning to the process of determination and dispensation of justice? The objectives of the research study were also outlined thus: the extent to which probability in legal reasoning has occasioned problems in the process of deliberation and dispensation of justice; examine the foundations of probability in legal reasoning, explore linkages between the doctrine of probability in legal reasoning and miscarriage of justice, investigation of the nature and extent of the subjectivity of the doctrine of probability and its implications to the process of determination and dispensation of justice and lastly whether the doctrine of probability in legal reasoning has outlived its usefulness as a method of inquiry and determination

of verdicts in the courts. It is in line with these research objectives that the subsequent chapters were developed.

In chapter two, the focal point was the examination of causation in legal reasoning. As outlined by Hume, induction and thus probability is a central feature of causation whereby having had always the experience of similar causes producing similar effects in the past, we are inclined to infer causation or a sort of relation between them and consequently expect that in future similar effects will have arisen from similar causes.

The ultimate conclusion was that the necessity of causation in legal reasoning is to enable the establishment of the extent of a legal responsibility upon which to determine the case. It is with the degree of probability that the nature and extent of causation in law is determined. Then consequently the determination and fixation of the responsibility after the setting of the extent of causation of harm or loss is possible.

In chapter three, the aim was to explore the nature, foundations and manifestations of probability in legal reasoning. In an effort to rationalize and legitimize the use of probability, there have been developed checks and balances in respect of evidence admission and acceptability of circumstantial evidence.

There have been developed various rules of evidence admissibility to gauge the nature, worth and admissibility of evidence. These and the principles of evidence chiefly aim at screening for quality evidence.

The effort of allowing only the guilty to be punished while the innocent are not punished unjustly has led to the development of a process of allowing and enabling the legal responsibility to be proved to a high degree. Consequently in an effort to rationalize and control the quality of evidence adduced to proof a case, various standards of proof have been developed. Though not absolute in anyway they nevertheless aim at enhancing and convincing that the accused is guilty or not.

These standards of proof are "preponderance of evidence", "beyond any reasonable doubt" and "clear and convincing evidence". These standards of proof express the nature, degree and level of personal conviction towards an event. However the question remains how universally binding, objective and rationally defensible are these standards of proof? They do not in any way express certainty of events and the gap between certainty and probability (either high or low) gives the judges a room to further exercise their rational prejudices with disastrous consequences on the part of determination and dispensation of justice.

The (in)consistency with which they are applied, the nature and extent of how individual judges believe in and apply them is best demonstrated by how and why verdict of a case can vary after appeal or re-appeal but in all cases the evidence is the same, but what has differed is the appeal and application of degrees of probability as exposed in standards of proof. Standards of proof are analogous to a "shooting gun with adjustable and varying shooting accuracy;

how accurate the shooting is depends on how the individual accurately adjusts the gun".

In chapter four, the concern was to examine how probability, *pe rse* and induction in general contribute to subjectivity in legal reasoning. The nature and process of legal reasoning has been examined in order to demonstrate how probability, causation and induction are relied upon in the determination of cases. Precedents as similar cases determined before further demonstrates the similar causes similar effects expectations as they are used as the authority and provide the ground upon which to deliver the verdict of the case at hand.

The disturbing problem is that the use of inductive reasoning, despite the various defenses offered against the central charge that it is an irrational way of reasoning, is that there is no certainty guaranteed during the process of verdict determination that someone is certainly guilty or innocent. This lack of certainty despite the claims that the standards of proof being so high such that no threat exists towards the verdicts propensity towards certainty guaranteed during the process of verdict determination that someone is certainly guilty or innocent. This lack of certainty despite the claims that the standards of proof are high greatly jeopardizes the whole process of legal reasoning.

Nyasani (2001:136) contends that judicial reasoning "is a dianoetically discursive and focused enterprise that aims at achieving an objective result even though it may often fail to do so ...Thus a judgement which can stand the

test of time must intrinsically reflect a degree of unparalleled objectivity and personal detachment and interest".

It is the lack of rationally compelling reasons and justifications as to how inductively reasoned court verdicts can be rationally certain and doubt-proof, that most often than not, together with other extraneous factors beyond the realm of this paper, that disputes arise challenging the truthfulness, certainty, absoluteness and universal appeal of court verdicts.

5.3 RECOMMENDATIONS

In the light of the above reasons this paper recommends the following:

i) Replacement of probability in legal reasoning with a more scientific way or method of reasoning that does not appear to be compromised or succumb to dangers of irrationalism.

ii) Urgent appeal to philosophers to resolve the problem of the charges about irrationalism of induction.

iii) The encouragement of the judges to know and appreciate the philosophical implications of induction in the concept of justice by studying philosophy and thus becoming philosopher judges.

iv) Concerted further study into the issue of interlocking the nature of pure philosophy and law.

v) Further multi-disciplinary researches about the implications of induction into legal reasoning and philosophical justice.

BIBLIOGRAPHY

Abdullahi, A. Burial Disputes in Modern Kenya: African Customary Law in a Judicial Conundrum, Nairobi, Faculty of Law, University of Nairobi, 1999.

Ackerman, B. Reconstructing American Law, Cambridge, Massachusetts, Harvard University Press, 1984.

Adler, S. The Jury: Trial and Error in the American Courtroom, New York, Times Books, 1994.

Allen, C. Aspects of Justice, London: Stevens and Sons Ltd., 1958.

American Bar Association, Standards Relating to the Administration of Criminal Justice, Chicago American Bar Association, 1974.

_____, Standing Committee on Professional Ethics, Informal Opinions, Chicago, American Bar Association, 1969.

Angel, R. Legal Procedures: Redefining the Role of the Juries. Chicago, Hackett Press.1996.

Aquinas, T. Selected Philosophical Writings, Oxford: Oxford University Press, 1993.

Aristole, The Nichomachean Ethics: Welldon, J.E (Trans), New York: Prometheus Books, 1987.

Armstrong, A. Uncovering Reality: Excavating Women's Rights in African Family Law, Harare, Zimbabwe, WLSA, 1992.

Arntzenius, F. (1993) "The Common Cause Principle," in Hull, Forbes, and Okruhlik (1993), pp. 227-237.Vol. 6 No. 2 1992 International Journal of Law. London.

Atiyah, P. Accidents, Compensation, and the Law, London, Weidenfield and Nicolson, 1970.

Bailey, V. Policing and Punishment in Nineteenth Century Britain, New Brunswick, N.J., Rutgers University Press, 1981.

Barrow, D. A Court Divided, New Haven, Yale University Press, 1988.

Bastable, P. The Logic, Depth, and Grammar of Rationality, New York: Gill and Macmillan Limited, 1975.

Becht, A. and F.W. Millar, The Test of factual Causation in Negligence and Strict Liability (St. Louis, Missouri. 1961).

Benditt, T. Law as Rule and Principle: Problems of Legal Philosophy, Stanford, Stanford University Press, 1978.

Bittle, C. The Science of Correct Thinking, Milwaukee: The Bruce Publishing Company, 1950.

Boole, G. The Laws of Thought, New York: Dover Publications, include, 1958.

Brewer, S. "Exemplary Reasoning: Semantics, Pragmatics, and the Rational Force of Legal Argument by Analogy" in Harvard Law Review, Vol. 109, 1996.

Brewster, F. Practice in the Courts of Pennsylvania Vol. II, Philadelphia, George T. Bissel, 1991.

Calabresi, G. 'Concerning Cause and the Law of Torts' (1975) 43 U. Chicago California (1985).

Carnap, R. 'On inductive logic', Journal of Philosophy of Science Vol.12, 1972.

_____, Logical Foundations of Probability, Chicago, University of Chicago Press.1950.

Castina,T. Proceduraland Methodological advancement of Court Cases.Virginia,Donville Press Inc.1997

Chapin, H. Handbook of the Law of Torts, St. Paul, West Publishing, 1917.

Charrow ,C. Making Legal Language Understandable: A Psycholinguistic Study of Jury Instructions, 79 Columns. Law. Review. 1306 (1979).

Chatto P. Induction, Probability and Skepticism in HYPERLINK "http://wws.chattopadhayayasunypress.edu.sung.ba.html"

Clark, R. Crime In America: Observations of Its Nature, Causes, Prevention and Control, New York, Simon and Schuster, 1970.

Clark, W. Handbook of Criminal Law, St. Paul, West Publishing, 1915.

Coase, R. 'The Problem of Social Cost', Journal of Law and Economics Vol.3, 1960.

Cohen, M. An Introduction to Logic and Scientific Method, London: Routledge and Kegan Paul, 1963.

Collingwood, R. An Essay on Metaphysics. New York, Macmillan, 1940.

Cooley, T. A Treatise on the Law of Torts, Chicago, Callaghan, 1907.

Copi, I. Introduction to Logic, New York: Macmillan Publishing Company, 1990.

Cover, R. The Structure of Procedure, Minnesota, Foundation Press, 1979.

Crawford, G. Capitalism and Human Endavours :The Painful Experience.Coppenhagen.Pinkile & Bro. Inc.1996.

Current, R. Those Terrible Carpetbaggers: A Reinterpretation, New York, Oxford University Press, 1988.

Davidson, P. The Science of Law. California. Dreckport press.1970.

Daubert V. Mcrell Don Pharmaceutical in HYPERLINK "http://www.cast-science.org/evid_ip.htm" HTML.

Del G. Facts in the Courtroom:Hanging the Judge.Chicago,University of Chicago.1990.

Descartes, R. Meditations on First Philosophy: Descartes Selections, Eton, R. M (ed.) London: Charles Scribner's Sons, 1927.

Dewey, J. 'Logical Method and Law' in Cornell Law Quarterly, Vol. 17, 1924.

Donald D. 'Causal Relations' in Essays on Actions and Events Oxford ,Oxford University press 1980.

Domino, W. New York Court of Appeals on Criminal Law, St. Paul, West Group, 1997.

Donovan, J. Tact in Court, London: Sweet and Maxwell Ltd., 1915.

Dupre, J. "*Probabilistic Causality Emancipated*," in Peter French, Theodore Uehling, Jr., and Howard Wettstein, eds. (1984) Midwest Studies in Philosophy IX (Minneapolis: University of Minnesota Press), pp. 169 - 175.

Elwork, S. and Alfini,C. Judicial Decisions: In Ignorance of Law or in Light of It? Vol.1 Law & Human Behavior, No. 163 (1970).

Emmanuel, S. Civil Procedure, St. Paul, West Publishing 1977.

Epstein, R. 'A Theory of Strict Liability', Vol. 2 Journal of Legal Studies,1973.

_____, 'Causation and Corrective Justice. A reply to two Critics', Journal of Legal Studies Vol. 8 (1979).

Fales, H. Trying Cases: A Life in the Law, New York, New York University Press, 1997.

Fleming, J. Civil Procedure, Boston. Little Brown, 1977.

Fletcher, G. Rethinking Criminal Law, Boston. Little Brown, 1978.

Freund, P. On Law and Justice, Cambridge, Belknap Press, 1968.

Fried, C. The Artificial Reason of the Law or: What Lawyers Know, New York: Prometheus Books, 1981.

Friedenthal, J. Civil Procedure, St. Paul, West Publishing, 1985.

Fuller, L. The Morality of Law, London: Routledge and Kegan Paul, 1964.

Fumerton, R. and Kress, K. *'Causation and the Law: Preemption, Lawful Sufficiency, and Causal Sufficiency, Law and Contemporary Problems, special issue on Law and Causation in Science*, John M. Conley (ed.), Volume 64/Number 4.August 2001.

Ghai, P. and McAuslan J. Public Law and Political Change in Kenya, London ,Oxford University Press, 1970.

Giere, R. Understanding Scientific Reasoning, Chicago: Holt, Rinechart and Winston Inc., 1991.

Good, J. "A Causal Calculus I," British Journal for the Philosophy of Science 11: 305 -18.1960

_____, "A Causal Calculus II," British Journal for the Philosophy of Science 12: 43 -51.1962

_____, Probability and the Weighing of Evidence, Griffin, London.1950

_____, *'Probability as the measure of a non-measurable set'*, in Ernest Nagel, Patrick Suppes, and Alfred Tarski (eds.), Logic, Methodology, and

Philosophy of Science: Proceedings of the 1960 International Congress, Stanford University Press. 1962.

Goode, S. et al. Courtroom Evidence Handbook: Student Edition, St. Paul, West Publishing Co., 1995.

Gottlied, G. The Logic of Choice, London: George Allen and Unwin Ltd., 1968.

Green, L. 'The Causal Relation Issue in Negligence Law' Michigan, Corpel press 1962

_____, Rationale of Proximate Cause, Kansas City, Duty Press,1927.

Hacking, L. "*What is Logic*" in Journal of Philosophy, Vol. 76, 1979.

Hall, J. (ed.) Readings in Jurisprudence, Indianapolis, Bobbs Merrill Company Publishers, 1938.

Hancock, M. Studies in Modern Choice-of-Law: Torts, Insurance, Land Titles, Buffalo, William S. Hein Company, 1984.

Hart, H. and Tony H. Causation in the Law Oxford, Clarendon Press ,1985.

Harvey, W. Introduction to the Legal System in East Africa, Nairobi: East African Literature Bureau, 1975.

Hitchcock, C. (1993) "A Generalized Probabilistic Theory of Causal Relevance," *Synthese* Vol 97:pp335-364.

Honoré, A. *'Necessary and Sufficient Conditions in Tort Law'*, (ed. D.G. Owen) Philosophical Foundations of Tort Law Clarendon, Oxford 1995.

_____, *'Causation and Remoteness of Damage'* in International Encyclopedia of Comparative Law ,1971.

Howe, M. Cases on Church and State in the United States, Cambridge, Harvard University Press, 1952.

Hume, D. (1748) An Enquiry Concerning Human Understanding.

Humphreys, P. The Chances of Explanation: Causal Explanations in the Social, Medical, and Physical Sciences, Princeton: Princeton University Press.1989.

Hurley, J. Concise Introduction to Logic, Belmont: Wandsworth Publishing Company, 1991.

Hydock, R. Fundamentals of Pretrial and Planning, St. Paul, West Publishing, 1966.

Jackson, R. The Machinery of Justice in England, New York, Cambridge University Press, 1977.

James P. Constitution Law - Sixth Amendment - Juror Misconduct - Premature Deliberations, Vol.32 Duquim Law Review , pp. 983 1994.

Jeffrey, A. We, the jury: the jury system and the ideal of Democracy, Columbia, Basic Books 1994.

Jeffrey, R. (ed.), Studies in Inductive Logic and Probability, Vol. 2, University of California Press.1980.

Kadish, S. 'Causation and Complicity: A Study in the Interpretation of Doctrine', California, Wolly Press Inc.1985

_____, *'A Theory of Complicity'*, in Issues in Contemporary Legal Philosophy: The Influence of H.L.A. Hart (ed). Ruth Gavison 1987.

Keeton, R. Legal Cause in the Law of Torts. Cambridge, Cambridge University Press ,1960.

Kyburg, H. Probability and the Logic of Rational Belief, Wesleyan University Press, 1961.

Kyburg, H. and Howard S. (eds.): Studies in Subjective Probability, 2nd ed., New York Krieger Publishing Co,1980.

Landes, W. and R. Posner, 'Causation in Tort Law; An Economic Approach', Journal of Legal Studies. Vol. 12 1983.

Latta, R. et al. The Elements of Logic, London: Macmillan and Co. Ltd. 1956.

Lay, Honorable Donald P., Law: A Human Process, St. Paul, West Publishing Co., 1996.

Leonard, P. The Juror's Need to Know vs. The Constitutional Right to a Fair Trial, Vol. 97 Dickson'sLaw Review No. 627 1993.

Leonard, S. Principles of Right Reason, New York: Henry Halt and Company, 1957.

Lewis, D. "A subjectivist's guide to objective change', in Jeffrey Richards (ed) ,1980.

Liman, A. Lawyer: A Life of Counsel and Controversy, New York, Public Affairs press, 1998.

Little, F. et al. Good Reasoning Matters; Toronto: McClelland and Steward Inc., 1992.

Loewy, A. Criminal Law, St. Paul, West Group, 2000.

_____, A Criminal Law Anthology, Toronto,Anderson Publishing Company, 1992.

Luftus, E. Legal Responsibility,Causation and Law.New Jersey,The Great Press.1992

Mackie, J. The Cement of the Universe. A study of Causation ,Oxford, Clarendon 1974, 1980.

Malone, W. 'Ruminations on Cause-in-fact',Stanford, Stanford University Press, 1956.

_____, *Causation and Responsibility* in Peczenik, A., Causes and Damages, New York, LundPress,1979.

Marcia, A. *Science on Trial: Medical Evidence and the Law in the Breast Implant Case* in HYPERLINK "http://www.manhattan-institute.org/html/cjm_28.htm"

Mas Alla Del Derecho, Beyond Law, Bogota, ILSA, 1991.

McCormick, N. Legal Reasoning and Legal Theory, New York: Dover Publications, 1978.

McDonald, F. *Novus Ordo Seclorum*: The Intellectual Origins of the Constitution, Kansas, University of Kansas Press, 1985.

Mellone, S. An Introductory Textbook of Logic, London: William Blackwood and Sons Ltd., 1950.

Menzies, P. "Probabilistic Causation and the Pre-emption Problem", Mind Vol.105 pp 85-117.1996

Mital, V. Advanced Information Systems for Lawyers, London, Chapman and Hall, 1992.

Mondin, B. St. Thomas Aquinas' Philosophy, The Hague: Martinus Njhoff, 1975.

Moore, M. 'The Metaphysics of Causal Intervention', California ,California University Press ,2000.

Nagel, S. Causation, Prediction, and Legal Analysis, New York, Quorum Books, 1986.

Nyasani, J. An Introduction to Traditional Logic, Frankfurth: Verlag Peter Lang, 1982.

_____, The Metaphysics of the Cosmos and Related Recurrent Issues of Metaphysics, Nairobi: School of Journalism, University of Nairobi, 1996.

_____, Legal Philosophy :Jurisprudence ,Nairobi,Consolata Institute of Philosophy 2001.,

Ochieng'-Odhiambo, F. Logic and Induction, Nairobi: Stantex Publishers, 1996.

Oruka, H. Practical Philosophy: In Search of Ethical Minimum, Nairobi ,East African Educational Publishers, 1997.

Patterson, L. et al Legal Ethics: The Law of Professional Responsibility: Third Edition, New York, Mathew Bender, 1989.

Patton, T. The American Law Experience. New Haven.Wardsworth Press. 1964.

Pomeroy, J. A Treatise on Equity Jurisprudence, San Francisco, Bancroft-Whitney, 1907.

Posner, R. *A Theory of Negligence* in Journal of Legal Studies Vol.1 ,1972.

Roberts P. *Why America was not Allowed to Watch Timothy Maveigh Die. Entertainment Network Inc. V. Lappin* in HYPERLINK "http://wwwcolomunilaw.edu.org.html"

Ruben C. Towards a Coherent Legal Framework.NewYork, Chapman and Hall Press.1996.

Salmon, W. "Probabilistic Causality," Pacific Philosophical Quarterly Vol. No.61: pp50 - 74.

Satter, Judge Robert, Doing Justice: A trial Judge at Work, New York, Simon and Schuster, 1990.

Schwartz, H. The Burger Years: Rights and Wrongs in the Supreme Court 1969 - 1986, New York, Viking, 1987.

Seavey, W. 'Mr Justice Cardozo and the Law of Torts', Harvard, Harvard University Press, 1939.

Semmel, H. Social Justice Through Law, Minnesota New York, Foundation Press, 1970.

Shafer, G. A Mathematical Theory of Evidence, Princeton, Princenton University Press, 1976.

Singer, P. Rethinking the Ethics of Life and Death. Australia, Monash University Press. 1986

Skyrms, B. *'Higher order degrees of belief'*, in D.H Mellor (ed.), Prospects for Pragmatism, Cambridge,CambridgeUniversity Press,1990.

Spellman, B. and Kincannon, A. *'The Relation Between Counterfactual ("But For") and Causal Reasoning: Experimental Findings and Implications for Juror's Decisions, Law and Contemporary Problems*, a special issue on Law and Causation in Science, John M. Conley (ed.), Volume 64/Number 4 (August 2001).

Spirtes, P., Clark G. and Richard S. Causation, Prediction and Search. New York: Springer-Verlag, 1993.

Stapleton, J. 'Legal cause: Cause-in-Fact and the Scope of Liability for Consequences', New York, Drope Press,1995.

_____, *'Law, Causation and Common Sense'*, in Oxford Journal of Legal Studies, Vol. No. 234 1998.

Suppes, P. A Probabilistic Theory of Causality. Amsterdam: North-Holland Publishing Company.1970.

Tanford, J. The Law & Psychology of Jury Instructions, Nebraska Law Review Vol. 71 1990.

The Journal of Law, Probability and Risk Hosted at http://www3.oup.co.uk/lawprj/scope/2002 Published by Oxford University Press.

The Jury Project: Report to the Chief Judge of New York ,1994.

Torrey, E. Frontier Justice: The Rise and Fall of the Loomis Gang, Utica, North Country Books, 1992.

Tyree, A. Expert Systems in Law, New York, Prentice Hall, 1989.

Vecchio, G. Justice: A Historical and Philosophical Essay, Edinburgh, Edinburg University Press, 1952.

Vernon, D. et al. Conflict of Laws: Cases, Materials and Problems, New York, Mathew Bender, 1990.

Vestal, A. Federal Courts: Cases, Materials and Problems, New York, Matthew Bender, 1972.

Waldron, J. *'Moments of Carelessness and Massive Loss'*, in Philosophical Foundations of Tort Law (ed), D.G.Owen, Clarendon, Oxford 1995.

Waller, B. Critical Thinking: Consider the Verdict, New Jersey: Prentice Hall, 1998.

Weddle, P. Argument: A Guide to Critical Thinking, New: McGraw-Hill, 1978.

Will, C. Was Einstein Right? Putting General Relativity to the Test, New York, Basic Books, 1986.

Williams, G. *'The Risk Principle'* in Law Quarterly Review, Vol. No.77, 1961.

Wise, R. Legal Ethics, New York: Mathew Bender and Company, 1971.

Wolgast, E. Ethics of an Artificial Person: Lost Responsibility in Professions and Organizations, Stanford , Stanford University Press, 1992.

Wright, R. *'Actual Causation vs. Probabilistic Linkage: The Bane of Economic Analysis'*, in Journal of Legal Studies Vol.No.14, 1985.

_____, 'Causation in Tort law', California Law Review Vol. No. 73, 1985.

_____, 'Causation, Responsibility, Risk, Probability, Naked Statistics, and Proof: Pruning the Bramble Bush by Clarifying the Concepts', Iowa Law Review, 1988.

_____, 'Once More into the Bramble Bush: Duty, Causal Contribution and the extent of Legal Responsibility', Vanderbilt Law Review, 2001.

Yeazell, S. Federal Rules of Civil Procedure, Boston, Little Brown, 1996.

Zimmerman, A. Probabilism use and Misuse, Unpublished Manuscript, 2000.

Zitrin, R. The Moral Compass of the American Lawyer, New York, Ballantine, 1999.