UNIVERSITY OF NAIROBI

FACULTY OF ARTS
DEPARTMENT OF PHILOSOPHY

LOGIC AND RATIONALITY IN LEGAL REASONING

BY

MAGERO JACOB - REG. NO. C/80/8973/2001

A THESIS SUBMITTED IN FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF DOCTOR OF PHILOSOPHY OF THE UNIVERSITY OF NAIROBI.

SUPERVISORS:

1. PROF. JOSEPH MAJOR NYASANI
2. DR. SOLOMON MONYENYE

DECLARATION

This thesis is my own original work and has not been presented for any award in any other university.

Magero Jacob

Date: 28/8/06

This thesis has been prepared and presented in fulfillment of the requirement for the award of a Ph.D degree of the University of Nairobi under our supervision and approval as university supervisors.

1. Prof. Joseph Major Nyasani

Date: 15/10/2006

2. Dr. Solomon Monyenye

Date: August 29, 2006

TABLE OF CONTENTS

ABSTRACT

This study attempts to show that the positivistic use of logical objectivity epitomized in constrained inference and consequence relations, as a model for rationality is a narrower conception of rationality. The study argues that such a conception only holds, and relatively so, in formal aspects of discourses in science. The study marshals the argument that an absolute exclusion of sentiments and morality from human existence, the implication of the positivistic ideal of rationality, is an arbitrary and unwarranted reductionist undertaking that begs the question as to what rationality is. The postulation of the study is that sentiments and morality are irreducible aspects of human social life and any conception and ascription of rationality to humans must *ipso facto* take cognizance of these aspects.

It thus suffices that contrary to positivistic thinking, the wider and more comprehensive conception of rationality is one which transcends mere logic and includes morality and sentiments in its theoretical construct. The study argues that the positivistic conception, though valid in the light of cognitive dictates and the scientific assumptions of causality and the uniformity of nature, transgresses ontological confines and imperatives. Such a conception is out of line with human nature and the essence of human social life. It can only apply to humans *secundum quid* but not *simpliciter* because it at best merely epitomizes artificial intelligence. Therefore, the positivistic conception of rationality relatively defines scientific rationality but should not be taken to define rationality in general.

Following the positivistic ideal of logical objectivity, legal positivism excludes morality and sentiments from its conception of the law. However, the study attempts to rebut this thinking on grounds that morality and sentiments are irreducible aspects of human social life. If man is a rational

being and morality and sentiments are irreducible aspects of man, the absolute exclusion of morality and sentiments from the conception of the law by virtue of their exclusion from the conception of rationality is argued to be invalid, contradictory and reductionist. The study shows that rationality goes beyond mere reasoning or argumentation and is therefore more complex than logic can sufficiently and invariably capture. This is illustrated in legal reasoning where the appropriate decision may demand a deviation from the logical expectation of the relevant legal provisions. Also, in "hard cases", the gray areas of the law, and in case law or precedent, a choice between competing principles is sometimes the desirable basis for judgment. In case law, a choice between competing conclusions depending on the choice of cases to illustrate analogies or disanalogies by the prosecution or the defense characterizes legal adjudication. Such competing principles, arguments and conclusions may rest on grounds of equal logical strength. In this regard, the significance of logic is limited to internal consistency and coherence. This is argued to constitute the internal standard of rationality.

The study however postulates an external standard. It is at this level that morality and sentiments suffice. This level exposes the relative incompleteness and unpredictability of reality which cannot be harmonized with the completeness and predictability assumed by logic. Hence the theoretical and practical limitation of positivism in general and legal positivism in particular. The study postulates a conception of rationality that is argued to be invariably in harmony with ontological reality and comprehensively captures human social life. This is achieved by invoking morality and sentiments where it is relevant and to propotionate extents. It is also achieved by upholding flexibility and openness in reasoning. Such flexibility and openness is argued to reconcile with the relative unpredictability and incompleteness of reality which is transgressed by mere logic. Such flexibility

and openness also checks the finitude and fallibility of human prediction and anticipation, which check is not envisioned and thus not envisaged in the positivistic conception of rationality.

1.0.0 CHAPTER ONE

INTRODUCTION

This study has been done against the background and in response to the positivistic and predominantly western conception of rationality in terms of logic [cf. Boelen, 1975: 310-313]. This is what D.A. Masolo (1995) has described as *logocentricism* in his work, *African Philosophy in Search of Identity.* In this conception, the thought is that rationality is mutually exclusive with sentiments (or emotions). Absolute objectivity becomes the mark of rationality in this line of thinking. This level and extent of objectivity manifests itself in impersonal, impartial blind disinterest. It is in this regard that there is an absolute exclusion of value judgment in this conception of rationality. It can therefore be appreciated why (apart from sentiments or emotions) ethics and morality cannot be accommodated in this positivistic conception of rationality. Logic is however the ultimate model for this sort of objectivity and it is in this regard that rationality is equated with logicality. Here logic is equated with rationality such that to be logical is to be rational and to be rational is to be logical *simpliciter* (without qualification).

However a question arises as to the extent to which such thinking sufficiently and comprehensively exhausts the conception of rationality. Logic calls for absolute objectivity that spells such impersonality that such aspects as sentiments (or emotions) and morality (or ethics) cannot be captured. Sentiments (or emotions) and morality (or ethics) are however argued in the study to be irreducible aspects that give meaning and define human life. They are therefore argued to guide and

control human behaviour and social life. A conception of rationality that absolutely fails to take cognizance of sentiments and morality by emphasizing mere logical objectivity is thus argued to be reductionist, invalid and narrow.

Logic also calls for completeness, certainty and predictability that is not in harmony with ontological reality given the relative variability, incompleteness and unpredictability of reality (especially in human social life). Such a positivistic conception of rationality is therefore argued in this study to beg the question as to what rationality actually is. The begging of the question follows from the fact that in their quest to discern scientific rationality, scientifically minded philosophers and philosophically minded scientists focused their attention on the formal aspects of scientific discourse and what was evolved as constituting scientific rationality (in formal axiomatic terms) was extended from the realm of science to define rationality in general [cf. Lauden (1977: 123), Putnam (1985: 103-126, 150-200), Hume (1972: iii), Nozick (1993: xiii-xiv), Thomson (2000: 8-11), Mclaughlin (1970: 271-278), Mullen (1970: 618-619), Bushkovitch (1970: 307-311)]. Thus, it at best constitutes a narrower conception of rationality.

Irrationality is thus construed in the study to consist in irrelevant and excessive invoking of sentiments or emotions or a complete rejection of them even when it is necessary to admit them. It is also construed to consist in an absolute rejection of moral considerations even when morality is relevant. The assumption of static and complete predictability of phenomena manifested in fixed concepts and stereotyped procedures (as implied by logic) is also shown to be a source of irrationality.

Logic is shown in the study to rest on objective necessity (constrained inference) that is mutually exclusive with emotions and morality. Logic is also shown to assume complete and predictable static conditions and circumstances. Ontological reality is however argued to be characterized by relative incompleteness and unpredictability. It is therefore argued in the study that logical reasoning is not invariably consistent with ontological reality. This is argued to *ab initio* (right from the start) limit the possibility that mere logic would sufficiently and invariably define and determine rationality as assumed by the positivistic conception of rationality as logicality.

Following the enormous advancement of science and the corresponding relative improvement of human life, science has often been celebrated. The scientific approach is however informed by logic [Guy, 1978: 185, 200-235]. In this regard, science employs logic in its attempts to arrive at conclusions. Logical consistency and coherence (absolute objectivity) therefore characterize scientific rationality. It is in the light of such import and significance of logic as a foundation in science that rationality in science has historically been equated with logicality [Thomson (2000: 8-11), Bushkovitch (1970: 307-311), Mclaughlin (1970: 271-278)].

However, following the 'success' in science, the conception of rationality in science as logicality has been extended from describing scientific rationality to rationality in general. For example, logical positivism and legal positivism have, in their attempts to achieve the absolute objectivity of logic as 'seen' in science, excluded morality and sentiments (or emotions) as considerations in their edifice of rationality [cf. Raz (1996: 195-238, 326-341), George (1992: 105-188, 309-365), Gavison (1992: 9-180), Hart (1982: 21-40), Tebbit (2000: 1-14, 16-20, 36-50, 52-72)]. In this process, Traditional

Theology. Metaphysics and Ethics have for instance been particularly excluded from the realm of meaningful discourse by logical positivism.

Legal Positivism has also dismissed Morality and Ethics as subjective and emotive considerations that cannot enhance and ensure the 'objectivity' and 'impartiality' desired in legal reasoning. In this regard, positivism in general and legal positivism in particular (by implication) effectively exclude morality and sentiments (or emotions) from their conception of rationality. Jeremy Bentham (1970) in his work, *An introduction to the Principles of Morals and Legislation*, is for instance notable for having described Blackstone's commentaries on the Common Law as moral preaching clothed in the language of law.

The celebration of the 'objectivity' and 'impartiality' of science based on logic is also manifest in the debate on African Philosophy, a debate that was described by D. A. Masolo (1995) as a rationality debate in his work, *African Philosophy in Search of Identity*. In this debate, some scholars use logic as the yardstick for rationality. Examples here include Lucien Levy-Bruhl (1962) in his work, *Primitive Mentality*, Diedrich Westerman (1934) in his work, *The African Today* and Friedrich W. Hegel (1956), in his work. *The Philosophy of History*. In this regard, African thought systems are for instance described by Lucien Levy-Bruhl as prelogical and therefore irrational and non-philosophical. Westerman also holds that the African cannot sustain a rigorous logical argument, that in the process he gets tired mentally and becomes emotional. The rationality of African thought systems is thus measured in terms of the extent to which they conform to logic. Logic is perceived in this context to be sufficient to determine rationality. This is all done in the interest of the impartiality and objectivity of logic. It is in this line of thinking that the alleged emotionality of an African is seen to be the mark

of his irrationality and, in fact, the reason for his inability to engage in a philosophical enterprise. The religiosity and intuitionism of an African seen in his tolerance of mystery and superstition is also understood as a diminution of his rationality by virtue of the fact that these phenomena cannot be captured in logical terms and in fact fail to conform to the logical criterion of predictability, consistency and coherence.

The legal arena is a significant instance where the rigour of reasoning is exemplified often with critical practical implications. The importance of the natural human endowment, the ability to reason, is an issue of concern in the light of the outcomes of legal decisions. Considerable amounts of money in terms of compensation, award for damages, imprisonment, among others are not a rare occurrence in the legal arena. Imprisonment and even death sentences are some of the outcomes of court proceedings. This is a scenario that raises valid concern with regard to the quality of reasoning that is observed in the practice of law and the administration of justice in general. In these circumstances, it is imperative that in order to enhance desirable conclusions with the ultimate goal of ensuring the goal and purpose of the law, the reasoning involved must be of the best quality possible all factors considered. It is the ideal expectation that human beings in their thought and action exhibit reasoning of the greatest possible quality (humanly speaking). It is in this light that logic is perceived to be of significance in this study, particularly when it is understood as the theory of consequence relations of valid inference [Quine (1965: 3), Quine (1974: 1-5), Goble (2001: 1-8)].

This study thus presents and attempts to sustain the position that the predominantly Western conception of rationality as logicality, with the implied and concomitant exclusion of ethical/moral and emotional considerations from the edifice of rationality constitutes a narrower conception of

rationality. The study argues that the inability of such a conception to accommodate and explain the relative unpredictability of reality and the relative flux observed in the universe due to the rigidity of logic indicates that such a conception is not in harmony with ontological reality and is therefore insufficient as a yardstick for invariably determining rationality. The study attempts to show that such a conception fails in its theoretical construct to take cognizance of irreducible aspects of human social life, emotionality and morality, in the light of which thought and action ought to be evaluated. It is thus shown that such a conception of rationality applies to a static abstracted and predictable world of logical possibility and not the real changing and relatively unpredictable experiential world of actuality.

It is in the preceding light that legal positivism, in its exclusion of morality and sentiments from its conception of the nature of the law and its celebration of logical consistency and coherence, is argued to be based on a theoretical foundation that is informed by a narrower conception of rationality. This is argued to account for the inability of legal reasoning to invariably guarantee moral justice/natural justice if undertaken on a positivistic understanding and interpretation. In this regard, the study argues that such constitutional provisions as executive powers are justified to complement the statutes, precedents and common law in order to guarantee cognizance of variability, equity and to infuse the human element in the law. It is only in that light that the ideal of the law, Justice, is argued to be sustainably approximated. The study argues that it is therefore (contrary to popular belief) in the context of a wider conception of rationality which admits a modicum of morality and sentiments that the existence of the law can be consistently justified and the reasoning entailed seen to be invariably rational, practical and desirable and not merely logically and legally valid.

Thus, logic is shown to be relevant to rationality only to the extent of ensuring internal consistency and coherence of the relevant structure/system. The value of the structure/system, though relevant to the entire edifice of rationality, is argued to be established by reference to considerations other than and outside of the realm of logic. These include change in circumstances, morality and sentiments. This is however what the theoretical construct of legal positivism is argued to fail to invariably capture and appreciate and it is on the same grounds that any scientistic conception of rationality as logicality is shown to fail as a comprehensive and accurate conception of rationality in general. The study thus serves to identify the theoretical and conceptual weakness of positivism in general and legal positivism in particular. The study also postulates the theoretical superiority of natural law theory. Hence the recommendation for the adoption of the recommendation in the Kenya draft constitution for a supreme court but in a form that is set to echo and mimic such a wider conception of rationality as is posited in the study.

The study contends that a modicum of morality and emotion in the context of human life and an acceptance and appreciation of relative variability and unpredictability in the wider universe are imperative for any invariably accurate and comprehensive theoretical conception of rationality. However, contrary to this position, logic is shown to assume too much staticism and predictability than reality warrants and this is shown to limit its sufficiency to define rationality.

However, the emphasis and importance ascribed to logic in legal reasoning can be accounted for in the context of conceptualizing legal reasoning as reasoning to establish the existing content of the law on a given issue and the decision which a court should reach in a case involving that issue which comes before it. Legal reasoning construed in this sense is what is also referred to as legal positivism [Raz

(1996: 193-238), Hart (1982: 21-40), Hart (1961:123-206), Okafor (1984: 157-159), Tibbet (2000: 1-52), Dworkin (1977), Dworkin (1986)]. In effect, legal reasoning as construed in legal positivism means that when judges decide a case according to the law, they do not do anything more than merely ascertaining the content of the law and applying it to the facts of the case. However, construing legal reasoning as such has been deemed to be occasionally unsustainable and inconsistent with reasonableness and rationality. The problem of this conception of legal reasoning is to a large extent founded on the fact that such a conception is based on a conflation of the theory of law with the theory of adjudication. Conflating the theory of law with the theory of adjudication is however argued to constitute a narrower conception of the law. This is because the more sustainable conception of the law is one which transcends mere adjudication. It is only such a conception of the law, which is wider than mere adjudication, that is able to justify judgment in hard cases (cases about which the law is not clear i.e., the gray areas of the law) because then the law would have "run out" such that adjudication would then not be clearly envisaged thus demanding a modicum of the discretion and wisdom of the judge to make a ruling. It is in such circumstances that it is inevitable to make extralegal considerations in deciding cases. This implies that the decision in that regard is outside of the definite legal provisions. In other words, what is ordinarily envisioned and envisaged in the conception of adjudication in the relevant legal system is transcended. The effect is that the law, thus construed encompasses or calls for more than mere adjudication. This is because, as it can be appreciated from the preceding account and sense, adjudication is subject to the law which is subject to change as dictated by good conscience, good faith and insight. To this extent, it is precarious to conflate the law with adjudication [cf. Gottlied (1968: 16), Will (1988: 67-68), Llyod (1981: 295), Wilk (1950), Dworkin (1985), Ahmed (1998), Hall (1996)].

Nevertheless, it is understanding legal reasoning in such a narrower sense that is the basis for demanding the necessity and apparent sufficiency of logic in legal reasoning as seen in for instance Dworkin (1986: 52, 101-108), Paton (1964: 74) and apparently Nyasani (2001: 133-137) although he at least highlights the limitation and the precarious nature of the relevance of logic in legal reasoning. Legal reasoning construed in this sense implies a more or less complete and closed system requiring no appeal to any consideration outside the provisions of the system. Logical inference thus becomes the fundamental aspect that characterizes reasoning in that regard. This becomes a basis for the validity for especially deductive reasoning in law [cf. Nyasani, 2001: 133-137]. Here then, decisions are inferred strictly within the provisions of the law. Extra-legal considerations are thus not made reference to because all valid considerations in this regard are perceived or expected to be part of the law [Dworkin (1986: 52, 101-108), cf. Raz (1996: 238-252, 258-269, 277-290, 326-340)]. This assumption however fails to take cognizance of the fact that the law cannot envision and envisage every possibility beforehand such that it would then be complete in the sense implied. Subtle nuances in cases that are very similar in some aspects may spell uniqueness and dictate unique consideration if the law and the process of adjudication are to be perceived to be reasonable and rational.

In the light of the preceding, some legal philosophers have maintained that logical reasoning in the law may occasionally be inimical to rationality and the very goal, purpose, and spirit of the law. The implication in this case is that other than logical reasoning being insufficient to enhance rational decisions in law in some cases, it may in fact sometimes spell irrationality and injustice from the moral point of view [cf. Gottlied (1968:16), Will (988:67-68), Llyod (1981:295), Hart (1958), Hart (1994), Raz (1994)]. The gist in this regard is that if legal decisions or outcomes are to exhibit insight, good conscience, and good faith, a judge may have to make considerations that the law may not have

anticipated, envisioned and therefore envisaged. A judge would then not have to decide some cases according to "the law" at all. In extreme cases, the judge may even be compelled by good conscience to refuse to apply "the law". This scenario may for instance be observed in a situation where a judge operates in a 'wicked' legal system with some morally odious rules.

At this juncture, the issue that suffices is whether it may not sometimes be necessary to suspend mere logic in legal reasoning in order to ensure rational and reasonable decisions, or better still, whether by being merely logical in their reasoning, judges may not in some cases make unreasonable and irrational decisions. This issue and concern has a basis in an attempt to reconcile the law and certain values and postulates such as the power of commutation, presidential pardon, the principle of equity, just to highlight the outstanding. Prerogative powers understood as the power to act according to the discretion of the sovereign for the common good without the prescription of the law and even against it (as intimated by John Locke in his *Second Treatise On Civil Government*) echoes the validity of the issue and concern raised. The principle of equity or particularized justice (a provision to set aside the anticipated and valid legal decision in the event that such a decision is deemed not to be in line with good conscience, good faith, and insight) is a further reiteration of the validity of the question and concern.

Just to illustrate the point further, it is imperative to note that the above examples [power of commutation, presidential pardon, and the principle of equity] show that there has to be a provision for reasoning in the practice or application of law and the service of justice to sometimes suspend mere logic in order that the purpose and end of the law may be achieved with moral /ethical and reasonable warrant. A case in mind is the Bosire commission charged with the responsibility to enquire into the

Goldenberge scandal in Kenya. This commission had to adjourn on 30th November 2004 in response to a court ruling directing the commission to call all the witnesses adversely mentioned in the proceedings to appear before the commission. The adjournment was aimed at halting the proceedings in the light of the court ruling and to appeal against the ruling which was in favour of an application by a former member of parliament, Mr. Jackson Mwalulu. The reasoning of the chairman of the commission, Justice Samuel Bosire, was that it would take the commission at least five years to have all the witnesses testify if all were to appear before the commission. The commission had argued that it had the discretion not to compel a witness to appear before it. The point is that the court ruling was most unreasonable if the commission were to fulfill its mandate and if its submissions were to have any practical import in the light of the circumstances. The court ruling was deemed not to have been reflective of good conscience, insight and good faith. Although the ruling of the court echoed consistency and coherence within the law hence was logical in its own right, it was (at least in the eyes of the public and the spirit that informed the constitution of the commission) lacking in reasonableness.

The above example shows how consistency and coherence within the law (mere logic, legal validity) can engender unreasonable conclusions or how it may lead to scenarios that spell unreasonableness. This means that going strictly by the mere logical expectation of the law (or legal provisions) may sometimes spell enslavement to the law and by extension and implication, irrationality.

There are other examples of cases that serve to illustrate the validity of the question as to whether reasoning that may appear arbitrary and relatively capricious and discretional in applying the law and the serving of justice may not sometimes be requisite for rationality to be observed and whether logical reasoning (reasoning that is consistent and coherent with what is expressly proclaimed by the law,

reasoning that is strictly and invariably guided by the relevant express legal dictates) in the same context and breath may not sometimes be a source of irrationality in legal reasoning. This constitutes the question of the relevance of logic in defining rationality especially in legal reasoning.

In Kenya for instance, the case in 2002 where Njehu Gatabaki an editor then for the Finance Magazine was charged in court for publications regarding land clashes, the decision which was made by the court and the subsequent intervention of the president, the case where Charles Njonjo a former Attorney General who was charged and convicted of treason and the president's pardon, the traditional presidential pardon of petty offenders on independence day, are an illustration of the position that the administration of law and justice is founded on reasoning which may occasionally transgress the expectation, criterion and realm of logic. This brings to focus the question of the relevance and place of logic in legal reasoning despite the popular and celebrated positivistic insistence on the sufficiency of logic in legal reasoning (legal positivism) as pointed earlier in Paton (1964) and Nyasani (2001).

To elaborate the cases mentioned above, Charles Njonjo was found guilty of treason and there was a definite sentence for the crime. Njehu Gatabaki was also found guilty on a charge of defamation and was sentenced to six months imprisonment without a fine. In the example of presidential pardon for petty offences on Independence Day, it is a situation where the accused have been charged and found guilty in court and actually imprisoned as provided for and expected in accordance with the law. In all these cases, it is observed that the law clearly and distinctly articulates what is to happen in very specific circumstances and given certain facts. The decision, outcome, or conclusion in the eyes of the law is thus quite clear and categorical. However, in the cases cited, what actually carries the day as the real and ultimate outcome cannot be reconciled with what the law expressly directs. There is a logical

inconsistency between what is expected in the light of the law and what actually happens following the prerogative powers of the president. This is a situation where the law directs that one is to be jailed but, contrary to the direction of the law, and as a matter of fact, the person is set free. In Kenya for instance, the more recent case was when Dr. Margaret Gachara (the former director of the National Aids Control council in Kenya) was set free by a presidential pardon in spite of her conviction. In these cases, the stipulation of the law is in effect inconsistent and contrary (logically speaking) to what really happens. What is in fact more intellectually stimulating is that the constitution, which is actually the bedrock and cornerstone upon which the law rests, provides for such powers as exercised by the president (in the case of Kenya). In fact, such constitutional provisions are so paramount to the extent that in case of a conflict between the law and the constitution, the constitution takes priority.

To this extent then, a situation is observed where in the provisions of the law, a certain conclusion is said to be the stipulated outcome given certain facts, but it's contrary is also tolerated within the context of the same admissible evidence and facts (in the eyes of the law) given the relevant constitutional provisions. The outcome that in effect carries the day in the cited cases ultimately becomes a matter of the discretion of the president. The outstanding point here is that these constitutional provisions echo and anticipate requirements of justice which transcend the logical expectations and dictates of the relevant legal provisions.

In the above examples, it comes out clearly that legal reasoning proceeds in such a way that a certain outcome or conclusion is held to be the case in accordance with the law and at the same time it is tolerated that such an outcome is not to be the case (given the unique circumstances of some cases which are similar to those made reference to by the law). This scenario, though clearly tantamount to a

contradiction and an inconsistency from the point of view of mere logic and arguing within the legal provisions, is, in the relevant circumstances, reasonable and rational in the light of the grounds for such constitutional provisions (good faith, good conscience and insight). Such constitutional provisions are however ultimately extralegal to the extent that they are dictated by the uniqueness of the relevant circumstances which cannot be envisioned beforehand nor prestated in the statutes or discerned from precedent (s). It then becomes problematic to reconcile the preceding fact with the importance ascribed to logical consistency (upheld in legal positivism) within the law, which implies the sufficiency of the provisions of the law to redress matters that come before it without extralegal considerations as for instance implied by Dworkin (1986: 56, 101-108).

It can therefore be appreciated that the doctrine of prerogative or executive powers is of theoretical and practical significance in that following such implied insufficiency of the relevant legal provisions (the statutes, case law or precedents and common law where relevant), there is need for such provisions to be supplemented by the sovereign in order for there to be achieved the ultimate goal, justice. To illustrate this point, it is helpful to take the recent example in Kenya (September 2004) where the president (Hon. Mwai Kibaki) refused to approve the name of Dr. Julius Rotich as one of the officials of the Kenya Anticorruption Commission (KACC). In this example, the relevant Act of Parliament was clear with regard to the role of the president in the process of appointing officials to the commission. The president's role was according to the Act (at least as argued by the then chairman of the Law Society of Kenya Mr. Ahmed Abdelnasir) merely ceremonial given the approval of the relevant names by Parliament. However, the president invoked his executive powers (at least as argued by his lieutenants, then Assistant Minister for justice and constitutional affairs, Hon. Robinson Githai and the then Attorney General, Mr. Amos Wako) and authority to reject the relevant name on

grounds of moral duty and obligation for the common good. In this regard, the president appealed to extrajudicial considerations, morality (or at least was said to have ultimately appealed to morality). This sort of consideration was not (at least in the positivistic interpretation of the president's action) completely and explicitly envisaged in the Act, hence the president had to "break the law" or was at least said to have broken the law.

The president's action could be justified and appreciated morally and politically in the light of construing executive powers as the power of the sovereign to act according to his discretion for the common good without the prescription of the law and even against it. The president's action could not however be justified and appreciated within the restrictive, criterial and fixed positivistic interpretation of the Act. The action could however be explained and appreciated on a naturalistic interpretation of the law. This is an interpretation that is founded on a wider and more comprehensive, relatively noncriterial conception of rationality and the law, a conception that transcends the objectivism, formalism and staticism of logic and incorporates morality and human sentiments. This is a conception of rationality and the law that is argued in this thesis to restore (or maintain) the human element to legal reasoning. It is a conception which also reconciles well and that is in harmony with the relative dynamism and openness of the universe especially as observed in the human social realm. This is dynamism and flexibility (or openness) which reasoning needs to have in order to be in line with the dictates of rationality.

There is also the example of how the logical coherence and consistency of the law within itself (the fact of the law being logical within itself) may lead to outcomes which do not pass as reasonable and rational. Outcomes that are in effect inconsistent and contradictory to the very ideal objective of the

law - a situation which occasionally renders legal reasoning (particularly understood in terms of legal positivism) ultimately inconsistent and contradictory to its end by being logical. In this context, the objective of the law is conceived to rest in the ability of the law to ensure that conflict resolution and the prevalence of order and harmony is attained in a manner that conforms to good faith, good conscience, and insight.

A case in point that justifies the above concern is cited by Spencer (1989:324). In this case, a serial killer kidnapped a young lady and confined her in an isolated house. But before killing her, he went to buy foodstuffs from a nearby food store. The lady managed to free herself and called for help from the police through a telephone though still locked up in the house. The police responded and managed to rescue the lady by breaking down the door. In the event, the police found in the same house a mutilated body of another girl earlier reported missing. The suspected kidnapper was arrested and charged of first-degree murder, kidnapping, and illegal confinement. However, in the preliminary hearing, the court dropped the charge of first-degree murder because the evidence adduced before the court was obtained through an illegal search. The court also found inadmissible the mutilated body of the first victim as evidence because the police acted *ultra-vires* (beyond their powers and legitimacy in accordance with the law) by conducting a search, which was termed as beyond their primary mission of responding to a distress call. The court advised that the police should have sought a search warrant if they suspected murder. Besides, since the suspect was arrested outside the prison house, the police were unable to produce 'sufficient' evidence to link him with the kidnapping and illegal confinement. Though the house belonged to the suspect, that was not evidence enough to make him the one who committed the crime. Hence, this serial killer was set free on matters of law and not matters of fact.

Reasoning that proceeds as in the above case is typical of legal positivism and is quite logical within the context of the relevant legal provisions. However, the outcomes of such reasoning as seen in the example cannot be termed as rational or reasonable in the light of the objective and spirit of the law as explained in the preceding paragraph. This then becomes an instance of logical reasoning (consistency and coherence) in the application of law and the administration of 'justice' leading to a conclusion and outcome that is argued in this thesis not to be rational outside the realm of legal positivism. As Kekes (1976:133) notes, rationality is demonstrated not by commitment to fixed ideas, stereotyped procedures, or immutable concepts (as seen in legal positivism and as popularly conceived in legal reasoning) but by the manner in which and the occasions on which these ideas, procedures, and concepts are changed.

The examples hitherto adduced can be put into two categories, one in which the point is made that legal reasoning may proceed in a way that transgresses logical expectation (or prediction) but nevertheless leads to outcomes that are rational and that clearly and distinctly exhibit good conscience, good faith, and insight. In the other category [where Spencer's (1989) case serves as an example], it is appreciated that logical reasoning in the legal arena may yield undesirable and in fact irrational outcomes, outcomes which do not manifest good conscience, good faith, and insight. This point is emphasized and appreciated when one looks at the requirement that in case a witness is prepared to swear that black is white and no evidence to the contrary is offered, then the evidence before the court is that black is white and the court must decide accordingly. The judge and the jury may think otherwise (they may even have private knowledge to the contrary) but they have to decide according to the evidence [Latta, 1956:305]. Such reasoning is perceived in this study to constitute the basis for the inaccuracy of an underlying assumption of legal positivism (the assumption of the completeness of

legal provisions, an assumption that lays foundation for the assumption of the sufficiency of logic, granted the completeness of the relevant legal provisions, to determine and define rationality) that is also perceived to account for the deficiency of legal positivism as a reliable approach to achieve moral justice or justice within the ideal objectives of the law (good conscience, good faith and insight).

The principle echoed in the above requirement (as upheld in legal positivism) is in harmony with logic. That is because emphasis is that legal conclusions and outcomes should be derived and inferred by relating the stipulation of the law with the 'facts' or evidence presented in court. In this case, the truth becomes a secondary consideration even if it is vivid and evident to the judge or jury so long as it is not stated or presented in court. This provides a loophole for a situation where a witness may lie and such lies are taken as evidence on the basis of which a legal decision is made. This is so long as the witness is consistent and coherent in the lies, the lies are told under oath and there is no contrary evidence adduced before the court. Such reasoning is not rational or reasonable in the context outside legal positivism (i.e., in everyday life) especially in the light of the fact that the private knowledge of the jury or the court is taken as irrelevant (if not undesirable) on grounds of ensuring absolute impartiality and objectivity (i.e., the blindness of the law). This means that the truth as it is provided by actual reality is subservient to the truth that is derived from a logical consideration of the raw 'facts' as presented in court. The abstracted truth thus supercedes the observed truth at the risk of such truth (the abstracted) failing to correspond to the actual raw truth as observed in reality. What this means is that logical truth or theoretical truth supercedes practical or concrete truth. This is argued in this thesis to be (to a great extent) a basis for the theoretical insufficiency and inaccuracy of legal positivism.

There is thus valid concern about the emphasis and importance ascribed to logic, objectivity and formalism in legal reasoning in particular and ordinary life in general. As earlier shown, such importance is seen in Paton (1964: 74), Nyasani (2001: 93-96) and Jackson (1988: 2-12). The basis of such perception rests in the ideas of Thomas Hobbes as developed by Peter Hans Kelsen's 'pure theory of law'. In the ideas of these two scholars, there is a clear separation of morality and ethics from the law, a separation which may reasonably be argued to account for the apparent irrationality of the law in some situations. The result of the separation is to leave to logical and exegetical wizardry the task of drawing conclusions and the making of legal decisions, leading to legal (or procedural) justice but occasionally failing to achieve moral (or natural) justice.

The famous verifiability principle was the chief arsenal of logical positivism. The principle asserted that the meaning of a proposition consisted in the method of its verification. Failure to meet the criterion of the principle meant that the relevant proposition was, not false, but meaningless or nonsensical. In Ayer's interpretation in his *language, Truth and Logic*, the principle meant that traditional metaphysics, epistemology, ethics, and traditional theology failed the test and fell under condemnation. It is important to note however that the basic stance of logical positivism was that of a militantly critical philosophy on the attack against ideas that had allegedly served as a veil to cover unreason, and often injustice as well. To the extent that logical positivism was a constructive as well as a critical philosophy, it proclaimed a gospel of science in the service of humanity. Logical positivism thus upholds the scientific approach in the evaluation of phenomena and the establishment of 'meaningful knowledge'. However, scientific approaches rest on logic. To this extent, logic plays a central role in positivism [Mohanty and Mckenna, 1989:29-67].

In the light of and in line with "positive thinking" (as explained above), logic has been construed to be an underpinning for rationality. This conception of how logic relates to rationality constitutes psychologism as a school of thought. In this school, the principles of logic are seen to represent the forms of thought imperative for thought. Here, the principles of logic are perceived to be equivalent to "the laws of thought" [Haack, 1979:238].

The western world has especially equated logical reasoning with rationality and in this regard Bastable, (1975:310-313) says that:

> The western world has pursued rationality predominantly in the form of logicality.... But its rationality has not been sufficient for understanding the complex unity of human life and the world.... We are coming to the end of this epoch of exaggerated objectivism... Thus the subjection of life to system is not the rational ideal for life. We demonstrate a greater rationality by looking on form not as fulfilling but as enriching, not as the goal and termination of effort but as a base for further ascent, not as bringing to rest our desire and search for truth but as increasing, endlessly, our potentiality for it. Such a perspective may be called 'metaformalism' since it is justified by reflection on the value and limitation of formalization in human life.

Logic as explained earlier constitutes the rules and principles of 'correct' reasoning or the theory of consequence relations of valid inference. However, in line with the caution echoed in the preceding quotation, it is reasonable to highlight that the central role that is attributed to rules in rational evaluation can be challenged. That following rules is not always required because one task of rational assessment is to determine which rules should be followed in a particular situation. In this regard,

following rules, even correct rules of logic, is not automatically rational. This means that our ability to be rational depends on a basic ability to exercise intelligent judgment that cannot be completely captured in systems of rules.

Nevertheless, logic appeals to common sense in a way that is overwhelming. For example, the systematization of forms of positive thinking about thought resulting in the invention of formal logic was a significant step in the history of man. Aristotle is highly credited for this progress and from his works such as the *'organon', prior analytics, posterior analytics*, are made explicit the law of identity, the law of contradiction, and the law of the excluded middle. These laws make logic very appealing to commonsense. Following from this, many scholars of different ages and orientations especially of the western world have had an inclination to insist that for any form of thought or action to be considered intelligible or rational, it has to conform to the rules of logic. This tendency can be seen tracing back to Leibniz and beyond in the form of the urge to replace the indecision, lack of decision procedures, and turbulence of philosophical investigations with logical algorithms [Will, 1988: 23,29].

Also, contemporary literature about human societies abounds with theories that have as their basic assumption that there are ineluctable logical principles by which all human experience must be assessed. The works of anthropologists dating back to Diedrich Westerman, Lucien Levy-Bruhl, Tylor, and Emile Durkheim clearly manifest this assumption. Levy-Bruhl in his *Primitive mentality* is particularly outstanding. He describes a prelogical mode of thought as one that is unscientific, uncritical and contains evident contradictions. However, notwithstanding any concessions or modifications that Levy-Bruhl made, he simply studied traditional thought purely as a formal logician. To him and others of his inclination, logic is perceived as if it were equivalent to rationality (i.e., the

rules and principles of logic are construed as if they were sufficient to ensure rational thought witho regard to such considerations as morality and sentiments, considerations which fall outside of th realm of logic). This implies that any deviation or transcendence above or beyond a logical accou spells irrationality. This mode of thought is however argued in this thesis to be ignorant of the fact tha ethical and emotional (sentiments) considerations for instance cannot necessarily fit into or b explained in the straight jacket of logic. These are considerations that are outside the jurisdiction o logic and involve the sort of emphasis on the uniqueness of each event and variability that canno conform to the rigidity, fixity and completeness that logic assumes. They are considerations which may involve mysticism (supernaturalism) and contemplation such that they may not be explainable in logical terms. They are however considerations that are argued in this thesis to be imperative for a rational construct. In a nutshell, these are considerations that are argued in the study to be alogical in themselves and that logic is only relevant to them to the extent of their internal consistency and coherence. The positivistic conception of how logic and rationality relate has however had a profound influence in scholarship.

The celebrated urge to apply the scientific method with its logical import to the study and evaluation of social phenomena (positivism) influenced the development of various disciplines. Legal practice and of course legal reasoning has as well had its share of the influence of positivism. In his work, *A text Book of Jurisprudence*, Paton (1964:74) for instance says that the law cannot dispense with a logical method if it is to have any claim to rationality. He wonders if it is possible to think without following the rules of logic. Paton goes further to say that suggesting that the best law can be achieved without a proper use of logic is simply non-sense. Nyasani (2001:93-96) in his work, *legal*

philosophy: jurisprudence, also categorically emphasizes on the necessity of logic in legal reasoning. Such sentiments can be appreciated in the light of the significance of coherence and consistency.

Coherence, a logical phenomenon, is notably a feature that has credence in legal reasoning. This is to a large extent the basis for demanding that legal reasoning has a modicum of logic [Kress (1984:369-402), Raz (1996: 277-325)]. However, there is general agreement that the coherence in question must amount to more than logical consistency among propositions [Kress, 1984:369-402]. But it is not clear exactly what this something is, that which is more than mere logical consistency [Kress (1984: 369-402), Peczenik (1989)]. These sentiments are shared by such theorists as McCormick (1984) in his article 'Coherence in legal justification' and Marmor (1992) in his *Interpretation and Legal Theory*. What is echoed among these scholars is that rationality in legal reasoning has demands and requirements that transcend and stretch beyond the realm of logic. These sentiments are further shared by Hart (1958:596-629) and Raz (1994) in his *Ethics in the Public domain*. In fact, Gottlied (1968:15) is quite emphatic and categorical when he says that:

> We have in England a deep distrust of logical reasoning; and it is for most part well-founded. Fortunately, our judge-made law has seldom deviated into that path, but on some of the rare occasions when it has done so, the results have been disastrous.

The limitation of the deductive and the inductive models in ensuring reasoning and inferences that can be considered rational in the light of everyday life is echoed in Will (1988:67-68) when he says that:

> The major question is not whether there is reasoning of some sort, somewhere in the juridical process in which laws are interpreted and applied to particular and sometimes

> very puzzling cases. Much more sharply defined than this is a question about the philosophical status of that phase of the juridical process in which conclusions are arrived at by a process of reflection that does not conform and cannot be made to conform to the deductive model of reasoning – cases abound in which, in order to make a definite determination whether some putative instance does or does not fall under a rule, the rule has to be further defined in such a way as to undergo definite modification.

In the same breath of the preceding, it has also been said that:

> Once the meaning and scope of important concepts are crystallized within a legal system, especially in one which like the common law adheres to a strict system of precedent, this may result in courts deciding new cases on what they conceive to be the logical nature and requirements of particular legal concepts. This may result in a sort of hardening of the arteries of the body of the law; an undue rigidity and inability to adopt to new social situations; and a tendency to adopt the attitude that the courts have no alternative but to work out the strict logical implications of the rules and that it is best to leave it to the legislature if hardships or other undesirable social consequences ensue [Lloyd, 1981: 295].

STATEMENT OF THE PROBLEM

From the foregoing information, it has been exposed that logic is taken as the model for determining rationality. This is illustrated in the scientific conception of rationality in terms of method, which method is either Deductive or Inductive. This scientific conception of rationality is extended outside of the realm of scientific discourse and is employed to define rationality in general. This phenomenon is reflected in the debate on African Philosophy which is another illustration of the use of logic as a model for determining rationality. This thinking is quite evident among scholars in the Western World such as Lucien Levi-Bruhl in his *Primitive Mentality* and Diedrich Westerma's *The African Today*. It is this thinking of especially Western origin (following Positivism as a movement) that has been referred to as *logocentricism* by D. A Masolo in his work, *African Philosophy in Search of Identity.*

But the question that suffices is whether logic is sufficient to define or determine rationality. In other words, are there any other considerations in the edifice of rationality other than logic and if there are, what are they? For instance, is it consistently tenable to exclude morality and sentiments from the theoretical construct of rationality as positivism does? Could morality and sentiments (excluded from the conception of the law and adjudication by legal positivism in its "separation thesis") constitute these other considerations other than logic? If so, is the positivistic thinking of absolutely excluding morality and sentiments from its conception of meaningfulness (as seen in logical positivism on 'meaningful discourse' and 'nonsense') and by extension rationality (echoed in Peter Hanse Kelsen's 'Pure Theory of Law', Jeremy Bentham's description of Common law as 'Dog law' and John Austin's 'Command Theory of law') a comprehensive conception of rationality?

If this positivistic thinking is not consistently tenable because morality and sentiments are also relevan in a wider and more comprehensive conception of rationality, the question is whether rationality does not therefore transcend mere reasoning. This is because logic is only relevant in the context of reasoning. Otherwise, the conception of reasoning would have to go beyond objective constrained inference (i.e., consequence relations) to include such subjective considerations as sentiments and morality.

Legal positivism has been shown to emphasize that legal practitioners reason in a way that is strictly coherent and consistent with the law as it is as opposed to the law as it ought to be (i.e., reasoning that goes beyond what is envisioned and envisaged in the law, reasoning that makes extra-legal considerations). In this regard, it is implied that logic is construed to be sufficient to define rationality to the extent that what is required of judges is just to derive the fitting decision or judgment on the basis of the given legal provisions and the admissible facts at hand. In this case, judges do not sometimes ultimately apply their wisdom as it were. This means that judges do not sometimes base their decisions on considerations outside of the express or implied and unequivocal legal provisions. However, the extent to which these positivistic assumptions and implications hold raises the question about the more comprehensive conception of rationality and the relevance of logic in that light.

The assumption of the sufficiency of logic in defining rationality in legal positivism holds to the extent that legal positivism denies extralegal considerations to legal reasoning. The assumption is that the provisions of the law are sufficient to guide in arriving at an appropriate judgment such that what would be required is just the establishment of the logical consistency and coherence (the inferential link) between the legal provisions and the facts of the case. It is in these circumstances that the blind

impartiality and objectivity is deliberately invoked to check any subjective considerations as sentiments and morality (in the eyes of the positivist). Here, it is logic epitomized in legal validity and not moral acceptability that takes priority.

But this positivistic assumption is questionable to the extent that it has also been noted that logical reasoning in the practice of law may lead to conclusions that would not pass in real life as appropriate. This has been shown to be notable in for example a legal system that, to start with, has iniquitous or morally odious laws (e.g. Nazi Germany and apartheid South Africa) or when logical consistency with legal provisions leads to a conclusion that is not in line with good conscience, good faith and insight. In this regard, it has been highlighted that mere logical reasoning in the practice of law may sometimes lead to inappropriate judgment from the point of view of real life. On the other hand, reasoning that deviates from the mere logical expectation of the relevant legal provisions may sometimes lead to appropriate judgment in the light of real life. The gray areas of the law and particularly "hard cases" have been used in this study to illustrate the preceding contentions. It is at this juncture that it suffices to be highlighted that the rudimentary pedestal upon which rationality rests is actual practical and real life ontological dictates and not mere cognitive fiat and possibility based on abstraction.

It is against this background that the question of the practical import or relevance of logic is posed. To this extent, the relevance of logic to rationality is raised. In a nutshell, the question regards the tenability of logic in sufficiently determining rationality as implied by positivism in general and legal positivism in particular. This question provides a basis and guide for establishing what constitutes the more accurate and comprehensive conception of rationality and the relevance of logic in that regard. This is what constitutes the problem of the study.

OBJECTIVES OF THE STUDY

1. Evaluate the sufficiency of logic in defining and determining rationality as implied by positivism in general and legal positivism in particular.
2. Evaluate the theoretical foundation of legal positivism in the light of logic and rationality by:
   (i) Establishing the import of logic in legal positivism
   (ii) Evaluating the practical tenability of such import

JUSTIFICATION AND SIGNIFICANCE OF THE STUDY

Rationality is a significant notion in reality and especially in human life and even in the life of higher animals. The significance of this notion to a large extent stems from an epistemological pedestal and instrumentalism or pragmatic import. From the epistemological pedestal derives issues of knowledge. These include the extent to which knowledge is possible, the reliable or accurate means of knowledge and the criterion of knowledge. Instrumentalism or the pragmatic import is significant to the extent of enhancing operacy which ensures survival and self-preservation. These features are fundamental to life.

However, the conception of rationality in the western world has generally been seen to differ from that of other parts of the world. In the western conception, the ideal of absolute objectivity has been emphasized with the result of a completely impersonal criterion. Historically, this is explained in terms of the relatively earlier advancement of science and technology in this geographical locale and the subsequent relative improvement of general life. With the experience of relative growth and development as a result of science and technology, the relative certainty and objectivity of science and technology was celebrated. This relative certainty and objectivity was however founded on objective reason as guaranteed by the logical approach. This celebration was however epitomized in the ideal of the impersonal logical approach. Meaningfulness and significance was thus seen through the spectacle of the impersonal and logical. It is in this regard that the impersonal and logical becomes the model of rationality not only in the realm of physical reality in science and technology but also in the human social realm.

This western positivistic conception of rationality was thus employed as a yardstick for rationality i general. It has subsequently been used to disparage societies and cultures that do not exactly conform to this model of rationality. Thought and action has often been evaluated against this model. Th result is that the thought processes and the resultant behaviour of societies in Asia, the Middle East an Africa were often deemed to be irrational. This was mainly because the mysticism and mystery tha characterized the behaviour and thought processes of these societies could not fit in this model o rationality. These thoughts for example failed the "verifiability" and "falsifiability" criterion o logical positivism. In this light, such societies were considered to belong to a lower evolutionary stratum and were in that regard lesser beings. The anthropological works then were seen to favour this conclusion, the biases and prejudices imbibed notwithstanding. The denial of the philosophical enterprise to Africa and the African was, in the debate on African philosophy, founded on this background. To a significant extent, this attitude became a justification for slavery, slave trade, colonialism and imperialism.

However, the assumptions upon which these evils rested are falsified with time. This thinking is not consistently sustainable in the light of the practical reality. Human beings from whichever culture or region (western or otherwise) belong to the same evolutionary stratum and scientific, archeological and anthropological evidence point mainly to this position. The differences can only be explained in terms of environment and historical factors.

Also, while phenomena such as miracles, religion in general, mysticism (or the supernatural) and mystery are accepted as part of reality and can sometimes be consistently, coherently and cogently explained and accounted for in the non-western societies (Africa, Asia and the Middle East), the

western societies (following this positivistic emphasis on the empirical and the objective especially in modern times) have often denied the reality of such phenomena. Those who have accepted the reality and significance of such phenomena have not pretended to be able to explain or account for them. Western thought has often perceived such phenomena to be outside the competence of man to comprehend and meaningfully explain or account for.

The preceding is illustrated in logical positivism in its criterion for meaningfulness as verifiability (or falsifiability in Popperian terms). In logical positivism, metaphysics, ethics, epistemology and traditional theology are excluded from the realm of meaningful discourse. They are described as nonsensical because of their non- empirical nature. Such phenomena cannot be verified in the empirical positivistic sense of verifiability (even though they could be verified in the inductive way by analogy as by the teleological argument of the proof of God). But positivism itself rests on a metaphysical foundation since it makes an assumption about all reality (meaningful discourse). One also wonders the theoretical and practical significance of positivism outside of epistemological and ethical considerations.

The skepticism about the non-empirical is also manifested in legal positivism in the "Separation Thesis". This is seen especially in Bentham's mistrust of the unwritten Common Law (as "Dog Law") and Kelsen's "Pure Theory of Law". The outstanding phenomenon here is the separation of the law from morality and (by extension) sentiments. The relative subjective and variable nature of morality and sentiments is the basis for their mistrust by legal positivism. It is in this light that there is always an epistemological problem in the theory of natural law. The cognate question however is how human life can be sustained innocently of morality and sentiments. One wonders how to relate the end and

purpose of the law with actual practice without invoking and evoking moral and ethical concerns. This means that this Western positivistic model is a narrower and unsustainable model to employ to explain or account for reality as compared to the competing model which accommodates sentiments (or emotions), morality (or ethics), mystery, mysticism, religion and general metaphysics.

It is in this light and against this background that the study stands to address the question as to whether mysticism, mystery, ethics, metaphysics, theology and morality in general are irrelevant to the question of rationality as categorically and unequivocally put by positivism in general and legal positivism in particular. This is following this western conception of rationality in terms of absolute objectivism and impersonality as dictated by logic. Further more, the question of the tenability of such a conception of rationality in the light of the end and purpose of the law is raised and addressed by the study.

The issue that this study stands to clarify as well is the sustainability of the import of science in the absence of ethical and moral consideration (considerations which positivism excludes in principle from its edifice of rationality). This is a question of the sustainability of the ultimate end and purpose of science in the light of a complete relegation of morality, ethics and sentiments. For instance, do doctors treat patients merely because they have the technical know-how or is it that more than the know-how, they also care? Is it not the case that doctors treat even better when they care? These questions echo the import of sentiments in for example the medical profession which is applied science?

It is horrific to imagine a world of nuclear weapons, the science of cloning, medical (scientific) capability to sustain euthanasia and abortion in complete innocence of ethics, morality and sentiments

(or emotions). In the realm of engineering, architecture and design, it is preposterous to absolutely ignore the import of style, glamour and fashion which have a close connection to feeling or sentiments (desire due to pleasing feelings). All these mean that science cannot be sustainable in the absence of morality, ethics and sentiments. It also means that the ultimate end and purpose of science (to a significant extent) rests on ethical and moral considerations and sentiments.

In other words, science for its own sake does not make sense in the context of human life. Its instrumental import is what defines its relevance to especially human life. However, this instrumental import has to be regulated and moderated in the context of irreducible aspects of social life. These aspects are morality, ethics and sentiments. This puts to question the tenability of an absolute exclusion of these aspects from the conception of rationality as upheld by positivism. This is especially in the light of the fact that positivism celebrates science which it assumes to be absolutely innocent of these aspects by virtue of its objective, impersonal logical basis. In the legal realm, this attitude is seen in Kelsen's "pure theory of law", and the general "separation thesis" which exclude morality and sentiments from the conception of the law. This means that the positivistic conception of rationality in terms of logic (following the objectivity, predictability, impersonality, and certainty guaranteed by logic in science) is questionable, hence the study.

The use of this model to evaluate and explain reality in the human social realm raises questions about its appropriateness. This is especially echoed in social sciences. The relative inability of disciplines such as Economics and Sociology to account for reality with the certainty and accuracy that mimics that of natural sciences (as is expected of them) is a significant setback to the plausibility of this model. The allegation that social sciences are value-laden is a valid allegation that casts a shadow on the

approximation of social sciences to natural sciences, which is their ideal. For example, the failure of the structural adjustment programs to yield the anticipated results is a practical illustration of the inaccuracy involved. The objectivity of natural sciences themselves has also been put to question. The interests, preferences and the general prejudices of the natural scientist have been raised as an objection to the objectivity claimed by natural scientists. This means that the validity of the very assumptions upon which natural sciences rest is rebutted. The implication is that the ideals of what social sciences mimic do not hold. This significantly waters down the authenticity of the social sciences themselves. All these issues are raised to demonstrate the precarious nature and therefore the tenability of the positivistic model of rationality in terms of the objectivity guaranteed by logic.

The Western positivistic model of rationality culminates into brute reason which escapes humanity. It is tantamount to artificial intelligence with the concomitant shortfalls seen in the lack of sensibility (sentiments or feelings), conscience, insight and general consciousness. This model of rationality is completely innocent of the human person. It echoes an abstracted world of mere logical truth and possibility with no guarantees to harmony with the real world of experience. This is an invalid and unnecessary escape from the realm of reality and humanity. Though this conception of rationality may be perfectly applicable to the world of machines especially in computers and so may be of great practical importance to science and technology, it is incredible and preposterous that it may be of invariable import to human social life. For instance, in the realm of law, the risks of such a model are exhibited in what Aristotle described as "harsh justice" which needs to be tamed by "particularized justice" by the principle of Equity. It is in this light that a need is seen in philosophy of law to distinguish between formal (or procedural) justice on one hand and natural (or moral) justice on the other. It is also in the same light that it is the argument of the theory of natural law that man-made

positive law ought to be within the framework of the provisions of a superior natural law for any legal system to be stable. This is to a large extent due to the fact that the theory of natural law accommodates and cognizes the aspects which are excluded from legal positivism. Some of these aspects cannot be harmonized (or reconciled) with the assumptions implied by legal positivism. These aspects include morality and sentiments, relative incompleteness, variability and unpredictability of reality, and the general fallibility of man.

Thus, contrary to popular positivistic thinking that sentiments (or emotionality) and rationality are mutually exclusive, the study cautions that it is more accurate and comprehensive to focus on the circumstances where the appeal to sentiments (or emotions) is humanly and ontologically requisite and justified and where it is not, rather than a blanket condemnation and relegation of sentiments (or emotions) from the edifice of rationality. In this light, even the absolute relegation of morality on the mere ground that it is reducible to emotivism is shown to be precarious to the extent that sentiments (or emotions) and rationality are not necessarily and in an unqualified sense in opposition (but rather that the opposition is qualified).

Against the preceding background, the study derives and exposes the wider and more comprehensive conception of rationality against the narrower scientistic positivistic conception of rationality in terms of logic. The exercise is important for the progress and development of legal reasoning and legal practice in general. This is because it stands to ensure and enhance insight, good conscience and good faith in the theoretical conception and practical administration of the law and all other realms of human endeavour. It is in this light that the study eventually recommends the necessity of a supreme court to check the positivistic and formalistic tendencies in legal practice. This should be a court that should

not be constituted entirely by lawyers but rather one that should include individuals from other walks of life so long as they are people of integrity, non-partisan and witnesses of justice. This is a court whose cardinal task is to serve justice in full cognizance of ontological dictates and social fiat.

LITERATURE REVIEW

Although it is important to appreciate that rational assessment requires rigorous rules for deciding whether a proposition should be believed and that logic and mathematics provide the clearest examples of such rules, that science has also been considered a model of rationality because it is held to proceed in accordance with a method which provides rules for gathering evidence and evaluating hypotheses on the basis of such evidence, it is equally important to appreciate that rationality transcends rule application. For example, an argument may be valid and thus have a conclusion which is logically true or constitutes logical truth, but that does not necessarily mean that such an argument is sound or constitutes factual truth. Soundness and factual truth (truth that is extra-mental/extra-cognitive) are attributes that are argued in this thesis to be relevant to rationality over and above internal coherence and consistency guaranteed by logic.

However, logic is only able to guarantee coherence and internal consistency which are construed and argued in this study to constitute just one aspect of rationality. The attainment of true and practical conclusions or inferences, which is argued to be the other aspect of rationality, cannot be guaranteed by logic because logic assumes the truth of the propositions adopted in an instance of reasoning. The assumption of the truth of propositions is argued in this study to be problematic in the light of rationality on the grounds that the truth of a proposition should be a subject or a consideration for rationality and not an assumption that is made in the edifice of rationality. Logic makes this assumption however because, as noted earlier, logic is, in the end analysis, merely a theory of consequence relations of valid inference and its importance merely lies in implication [Goble, 2001:1-8, Quine, 1974:1-5].

The preceding sentiments are echoed by Kekes (1976:114-118). In this regard, Kekes' postulates reflect the internal and the external accounts of rationality. He acknowledges that rationality is tied to logic (i.e., that logic is imperative for rationality). However, he maintains that conforming to logical rules is not sufficient for rationality. For him, logic offers a formal approach to what a philosophical account of rationality should be. He however appreciates that logic still has a great defect with respect to rationality. For instance, he argues that a belief or theory may be rational in one situation and fail to be rational in another. In these circumstances, if the theory of rationality were entirely formal, then the nature of the situation could have as little relevance to judgments of rationality as the content of propositions has to the validity of the arguments of which they form part. It is in this light that Kekes echoes the internal and the external accounts of rationality.

The internal account supplies the internal standards of rationality, which include logical consistency, conceptual coherence, explanatory power, and criticizability (possibility of self criticism). The external account provides the one external standard which is problem-solving [Scriven (1976: 5), Lauden (1977: 123), Mcpeck (1981: 12), Scheffler, 1973]. In this scheme, there are two features that essentially characterize rationality. These are, affording a better way of getting on in the world and a higher chance of attainment of truth (i.e., achieving a correspondence between the relevant conclusions/inferences and the reality) [Kekes, 1976: 114-118]. It is to a significant extent on the issue of truth that logic is argued in this study to be deficient as a comprehensive and sufficient account of rationality. In the twentieth century for example, logic took enormous strides when it was generally appreciated that its subject matter is not truth but validity. This is because every proposition can be the conclusion of a valid argument meaning that logical reason is indifferent to the truth of conclusions.

Here, reason or logic is the rule-following faculty – as opposed to the rule-picking or the rule-judging faculty. Not only may premises in a valid argument be unproved, they may as well be arbitrary and capricious.

Legal positivism construes legal reasoning to consist in reasoning to establish the existing content of the law on a given issue and the decision which a court should reach in a case involving that issue which comes before it. What legal reasoning in effect means in this regard is that when judges decide a case according to law, they do no more than ascertain the content of the law and apply it to the facts of the case. In other words, judges never resort to extra-legal considerations in deciding cases according to law because all the considerations which they are entitled to take into account are part of law. This conception of legal reasoning is seen in Dworkin (1977) *Taking Rights Seriously* and Dworkin (1986) *Law's Empire*. Legal reasoning in this sense implies that inferences, conclusions and decisions in legal reasoning are based strictly on the provisions of the law. In this case, logic becomes imperative and in a sense sufficient in legal reasoning because decisions have to be inferred strictly within the provisions of the law [c.f. Paton, 1964: 74; Nyasani, 2001: 93-96]. As discussed earlier, logic is the theory of consequence relations of valid inference. This means that inference and implication define the jurisdiction of logic and it is in this regard that then legal positivism is justified in construing rationality in law in terms of logical consistency and coherence within the law.

However, Gottlied, (1968: 16) intimates that logical reasoning in law may be disastrous and Will (1988: 67-68) says that the juridical process at times requires that conclusions be arrived at by a process of reflection that does not and cannot be made to conform to the deductive model of reasoning. The sentiments of Will (1988: 67-68) and Gottlied (1968: 15-16) on one hand and those of Nyasani

(2001: 93-96) are difficult to reconcile if not impossible to reconcile. Lloyd, (1981: 295) als maintains that logical reasoning in legal reasoning may lead to an undue rigidity and inability to adap to new social situations. Sentiments of the occasional inappropriateness of logical reasoning to law ar also echoed in the possibilities that a particular instance might be the kind of situation which coulc arise for a judge in a 'wicked' legal system where the law on some issue is so morally odious that, all things considered, the judge should not decide the case according to the law at all, but should instead refuse to apply the law [c.f. Hart 1958; Hart 1994; Raz 1994]. This possibility is also noted by Dworkin (1986) in discussing whether the Nazi had law.

Kekes (1976: 114-118) insinuates that while logic is not always irrelevant in determining and defining rationality, conformity to logical rules is not sufficient for rationality. He also maintains that to account for rationality in formal terms would be tantamount to treating rationality like validity, which is a timeless property of arguments. The caution that Kekes highlights is that if the theory of rationality were entirely formal, such a situation would strictly speaking have as little relevance to what actually constitutes rationality in the strict sense as does the content of propositions has to the validity of the arguments which they form. Kekes asserts that a theory of rationality has to account for two features of a pre-analytic notion of rationality. The first is that a rational theory affords a better way of getting on in the world than an irrational one. The second is that the rationale for a rational theory being likely to be an enhancement of getting on better in the world is that it has a better chance of being true, of corresponding to what there is than an irrational one.

Kekes's postulation constitutes an attempt to explicate the pre-conditions and considerations upon which a rational theory has to rest. In the event, he echoes his conception of rationality as a concept.

He states the features that a pre-analytic notion of rationality has to account for (i.e., a better way o getting on in the world and a better chance of being true). This study aims at, among other things, tc appreciate Kekes's exposition and in the appreciation, show the relevance and appropriateness of his conception of rationality focusing mainly on legal reasoning. The activity constitutes an appreciation and justification for the need to distinguish between logic and rationality and an establishment of the place or role of logic in defining, determining, and enhancing rationality especially in legal reasoning.

Regarding the nature of legal reasoning, Greenawalt (1992: 45-202) holds that reasoning within the law is practical reasoning about what should be done. That it is largely about the meaning of authoritative materials and their implications for practical issues that arise in social life. He maintains that any "autonomy" of legal reasoning rests in the distinctive mix of relevant reasons within the law which range from the mixed drives, from the special functions of law, the richness and complexity of legal materials, the institutions that make legal judgments, among others. But notwithstanding the significance of the factors that Greenawalt exposes in his discussion on legal reasoning, he does not include what this study conceives to be a significant concern in a fair description or evaluation of legal reasoning. The theoretical assumptions and nature of legal reasoning apart from the factors that play a role in influencing legal reasoning is not an aspect that Greenawalt includes in his account while this study conceives this aspect to be of importance in determining the appropriateness of legal reasoning. Greenawalt does not for instance give attention or include in his consideration the fact of the formal aspect of legal reasoning in the light of how far it is tenable. Echoing the preceding concern is the contention that:

> As a nation, we have not thought deeply enough about the business we commend to this court, if we did, we would see that it makes no sense for all of the judges to be lawyers.

> A number of other disciplines and perspectives should contribute to that philosophical forum that we call the Supreme Court. The 100 per cent quota of lawyers we have for this unique body tends to give a positivist cast to the court and frustrate its prime purpose because of the mechanical jurisprudence that many of our lawyers have imbedded in their training [Maguire, 1980: 122].

What Maguire emphasizes is that appropriate legal reasoning has to put into consideration a number of other factors and considerations which are not provided for and cannot be completely foreseen and provided for beforehand within the law. In this case, a strict derivation of conclusions from the provisions of the law may not enhance decisions or conclusions that serve the practical importance and ideal of the law [c.f. Will (1988: 67-68). Lloyd (1981: 295)]. This accounts for why (to a significant extent) some laws are sometimes deemed irksome, burden-some and anachronistic and require to be reviewed or abandoned altogether.

What is inferred from this scenario is that logical reasoning has a limitation in a more comprehensive and accurate conception of legal reasoning and rationality and that there are other considerations which have a part in determining proper or correct reasoning in the legal context as Maguire (1980: 122) intimates. Maguire does not however elucidate and substantiate his concern in the light of what role or significance formal or "mechanical reasoning" (which rests on logic) has with regard to enhancing and determining what constitutes an appropriate and practical conclusion. Maguire rather focuses on the American justice system with the objective of defining what constitutes the new 'American justice' which is also the title of his text.

A quite relevant scenario which echoes the inadequacy and (in some cases) even the inappropriateness of the rules and principle of logic in successfully guiding reasoning in legal practice is seen when legal reasoning is assessed against the yardstick of what constitutes bad (or fallacious) reasoning from the point of view of logic. The principles of assuming an accused innocent until proved guilty or guilty until proved innocent are fallacious or bad reasoning from the point of view of logic. This is because of the apparent 'appeal to ignorance' in such a principle. However, Brewer (1996: 1998) has shown that such a principle constitutes proper reasoning in the practical context. The rationale and justification for the acceptability of the principle is based on the practical fact that an individual may bring in an effort to get an award for damages or actually make a false allegation or claim. The principle or the assumption is also founded on the objective of providing a safeguard so that whichever claim or allegation that is leveled against an individual in court is substantiated or proved by the party that makes the claim so that outrageous claims are discouraged [Waller, 1998: 49]. The preceding proves that although logic purports to present a framework for establishing the correctness and incorrectness of reasoning, the criteria and standard set by logic is inadequate and incomplete and thus inappropriate in invariably determining correct and incorrect reasoning from the practical point of view, especially in legal reasoning.

Another scholar who has echoed that the rules and principles of logic as seen in the deductive and inductive models of reasoning are not always adequate in defining, determining or enhancing rationality in legal reasoning is Teays [1996: 371-413]. Teays argues that there is often an element of moral import in legal reasoning although it cannot be said that legal reasoning is actually moral or that legal reasoning always appeals to morality. For Teays, given that there is often the import of morality in legal reasoning and given the fact that moral reasoning has deep roots often grounded in cultural and

religious beliefs, there is a limit with regard to how far logic can appropriately govern legal reasoning. This is because the ultimate values upon which other values rest in morality are determined on grounds beyond the realm of logic.

It is however important to note that although the scholars mentioned above, Brewer (1996), Waller (1998), and Teays (1996) have discussed legal reasoning in the light of logical rules and principles, they have not postulated or had a deliberate and express focus on what constitutes, determines and defines rationality in legal reasoning. This provides a gap that justifies this study.

Mcpeck, J.E (1981: 12) construes rationality to consist in the exhaustive intelligent use of available grounds or reasons for the solution of a problem. The significance of the presentation of (good) reasons for the justification of an action or thing is also echoed in Lauden (1977: 123). The emphasis on reason (s) as an attribute of rationality is also seen in Siegel Harvey, (1988: 32) when he says that to be a rational person is to believe and act on the basis of reasons. However, logic banks significantly on reasons and is in informal speech equivalent to reason [Scriven, 1976: 37]. But despite the importance of 'reasons' in order to determine rationality, Siegel cautions on the employment of reasons thus:

> It does not follow ... that we should engage in a mindless or slavish devotion to reasons. It makes perfect sense to "shut reasons off" and ignore the demands of reasons in some circumstances ... there are meta-reasons for ignoring object level reasons ... We should be rational without our becoming "rational automata" moved solely and slavishly by devotion to reasons, with no critical insight to our Relationship to reasons at various levels [Siegel, 1988: 32].

Suffice to ask at this point and against the background of the preceding quotation is whether logic in the strict technical sense of the discipline does not lead to Siegel's "rational automata". If "rational automata" is not strictly speaking rationality, or better still, an understatement of rationality as Siegel implies, does it not then mean that there is a need for the evaluation of the extent of compatibility between logic and rationality? This is an issue that the study ultimately intends to address.

Siegel (1988: 138) asserts that despite the importance of 'reasons' for purposes of determining rationality, the reasons have to be defined by principles at least purporting to be impartial and universal. However, he clarifies that such principles evolve and change in respect of time and the need dictates and that although the principles are for practical purposes subject to change, rationality retains its nature. What Siegel implies is that rationality is dependent as well on practical and concrete considerations apart from coherence and internal consistency. This interpretation is in line with Kekes (1976: 133). Logic however does not accommodate and is incompatible with the dynamism that is demanded by rationality as so far highlighted. Logic is therefore at best argued in this study to fulfill only one of the factors that are imperative for determining and defining rationality (i.e., internal coherence and consistency).

Bastable (1975: 308) holds that being rational consists in operating some formal system. That logical procedure in logical language is an extension of natural procedures in natural language. He says that one aspect of thinking rationally is that thought proceeds in accord with what is already known (i.e. what is already known provides a continuous rational constraint). In this regard, Bastable says that systematic consistency is accepted as a condition of rationality in daily life (i.e., that principles explicit or implicit, which are present at the start, should be held vigorously throughout the context). He

elaborates that the rational expectancies of our daily life have, indeed, the logical character of theorems and instantiations from our world-view. He argues that little conscious effort may be involved in the daily exercise of systematic thought because the knowledge used is habitual and the procedures of judging and testing in the light of that knowledge are habits too.

Bastable goes further to assert that inherent in human living is the fact that humans live in particular cultures and that accordingly, they think systematically. That the characteristics of mature, sovereign thinking are present when humans are systematic by which he means commitment to principle and to procedure, generality and tenselessness of statements, precision and consistency in content. As a way of summary Bastable says that:

> Logic itself bears witness to our strong rational impulse both to elaborate truth transmitting it to consequences, and or diagnose falsehood, locating its roots in a false principle. If not a definition of the science it is certainly an important aspect that is a theory of derivability and this theory is necessarily operational (to varying degrees) in the other sciences in daily life [1975: 309]

In a nutshell, Bastable implies that rationality is determined and defined by commitment to principle and to procedures, generality and tenselessness of statement, precision and consistency in content. To this extent, Bastables's conception of rationality boils down to logic in which case logic is the yardstick for rationality (i.e., rationality is determined by the extent to which reasoning adheres to the rules and principles of logic). This study however argues that what Bastable so far presents as the criterion for rationality is just a conglomeration of the necessary but not sufficient conditions that

define and determine rationality. That criterion constitutes, in Keke's scheme, the internal standard of rationality and so is insufficient because the external standard is not met (Kekes, 1976: 114-118).

Thus far, the literature reviewed has shown that there is a school of thought that equates logic with rationality such that what is rational is what conforms to the rules and principles of logic [c.f Bastable (1975: 328-311), Scriven (1976: 36-37), Will (1988: 68-69), Paton (1964: 74)]. This study however endeavours to show that the preceding is an overstatement of the significance of logic to rationality. The review also shows that logic, as a framework for reasoning, is inadequate to invariably ensure and guarantee practical conclusions. The study thus proceeds to establish the practical tenability of construing logical consistency and coherence as a sufficient criterion for determining rationality. This is done by evaluating the theoretical construct of legal positivism which excludes morality and sentiments or emotion and only emphasizes logical consistency and coherence within the law.

THEORETICAL FRAMEWORK

Self-evident principles, clear-cut concepts, and exact definitions constitute the cornerstones upon which logic rests. This foundation of logic assumes the possibility of a perfect 'control' of the universe as a whole and of all its parts. However, the universe is characterized by workings that are relatively unpredictable and unforeseeable. Logic thus presupposes "determinism", a theory that all effects are exhaustively determined by their causes, and, consequently, fully explicable and predictable in the light of those causes [Boelen, 1971: 6-7].

Rationality on the other side is in this study construed, to be determined by two factors namely coherence and internal consistency on one side, and the practical implications, significance, or import of the relevant conclusion on the other. However, logic is conceived in this study to be capable of only satisfying one of the two imperative conditions for defining and determining rationality, internal consistency and coherence. To that extent, logic is a necessary but not a sufficient consideration for defining and determining rationality. By the same token, rationality is construed to transcend and demand more than what logic can provide. This position is echoed in Kekes, (1976: 133) thus:

> A man demonstrates his rationality, not by commitment to fixed ideas, stereotyped procedures, or immutable concepts, but by the manner in which, and the occasions on which, he changes these ideas, procedures, and concepts.

In other words, Kekes (1976) implies that the determinism on which logic rests is inadequate to define and determine rationality, a position that is maintained in this study as reflected in the hypothesis. The same position regarding the inadequacy of logic and a conception of rationality that goes beyond what logic can offer is reflected in the contention that:

> The assertion that what transcends logic is irrational is based on rationalism or the dogma of the ultimacy of correct deductive and inductive thinking [Boelen, 1971: 3]

The preceding quotation echoes the position held in this study that rationality has logic as a necessary but not a sufficient condition. That logic has the role of ensuring internal consistency and coherence only while the other aspect, the practical import of a conclusion as seen to correspond or to be compatible with the practical and concrete demand(s) of the circumstances surrounding an event or reality falls outside the realm of logic. The conception here is that the practical dictates in this regard include ethical considerations and sentiments (e.g. mercy. sympathy, empathy, anger, and so on).

Hitherto, logic is founded on rationalism. a philosophical school that upholds reason as the chief instrument and test of knowledge. Rationalism maintains the ultimacy of intellectual insight as the most important part of the source of knowledge. The clearest cases of such insight are logic and mathematics. However, the inadequacy of rationalism to ensure and provide a complete framework for defining and determining rationality can be read in the contention that:

> ...Logic has an inner tendency towards mathematical thinking and mathematical exactness is the prototype of logical intelligibility ... But to mistake mathematical intelligibility for the prototype of all intelligibility is rationalism or the dogmatic belief in the ultimacy of logical thinking ... The mechanistic world-view of the rationalist therefore, is a construct of the mind which does not coincide with the real dimensions of reality ... This experiential uneasiness is a healthy indication that nature has an ascendancy over logic, that fundamental reality resists the quantifying and analysis by the logical realm and that fundamental questions cannot be silenced and should not be silenced [Boelen, 1971: 7-8].

The competing theoretical framework that is bound to address and safeguard against the limitations of rationalism as a framework within which the study can achieve its objectives and verify its hypothesis is Empiricism. This is the philosophical doctrine that emphasizes the role of experience in human knowledge while minimizing the role of reason. In this light for instance, it has been held that:

> It does not follow... that we should engage in a mindless or slavish devotion to reason. It makes perfect sense to "shut reason off" and ignore the demands of reason in some circumstances... there are meta-reasons for ignoring object level reasons... we should be rational without our becoming "rational automata", moved solely and slavishly by devotion to reasons, with no critical insight into our relationship to reasons at various levels [Siegel, 1988: 32].

What Siegel, (1988:32) cautions against and proscribes is what logic is inevitably bound to engender if it, in itself alone, is applied as a criterion for defining and determining rationality. It is by the same reason as well therefore that rationalism offers an inadequate and incomplete theoretical framework within which the study can achieve its objectives and verify its hypothesis. Empiricism, which is a competing theory, offers a more plausible theoretical framework to complement rationalism. This is because of the emphasis by empiricism on sense perception and practical experience. The emphasis on sense perception and practical experience enhances the identification and appreciation of the uniqueness of an event and the treatment of such an event as such (as unique). This ensures the flexibility called for by rationality, the flexibility that logic (and by extension rationalism) cannot live up to but which is in harmony with empiricism construed as explained above. In this line of thought is the assertion that:

> ...our past instances of addition and our learning of an abstract method of addition will not guarantee how a new problem should be treated... A law is not there to be understood historically, but to be made concretely valid through being interpreted.... For the reasoning to matter, it should bear on the result that is reached ... legal reasoning is not mastered by learning a list of abstract propositions. Like other practical callings in life, it is learned mainly by doing [Greenawalt, 1992: 71-74, 201].

What Greenawalt asserts above is what the study subscribes to and it can be approximated within empiricism as a complement to rationalism. John Locke in his *An Essay Concerning Human Understanding* (1960), David Hume in his *Treatise of Human Nature* (1739), among others are examples of scholars who have subscribed to

empiricism. John Locke for instance denied the doctrine of innate ideas as for example propounded by Plato. Locke made a distinction between statements which assert or deny the existence of something and statements about the meanings of words. He held that only the latter could be necessary and examples of these are Mathematical and logical statements, which are perceived by Empiricists as not adding any new knowledge. This view was further developed by Hume into a doctrine that all statements that are significant can be divided into statements about "Matters of fact" which are considered contingent and must make reference solely to what can be experienced and statements about "relations between ideas" which may be necessary.

In these distinctions. mathematical statements and logic fall within the category of "statements about the meanings of words" and statements about "relations between ideas". This category fits well in rationalism and is inadequate to capture rationality and satisfy the demands of rationality as construed in the study. This is because rationality is construed in this study to require a consideration of meanings of words and the relations between ideas and apart from that, also demand a consideration of matters of fact which must make reference to what can be experienced. This is a requirement which rationalism, and, by extension logic cannot invariably fulfill, but a requirement which can be fulfilled if empiricism as hitherto discussed can be used to complement rationalism.

So far, it can be appreciated that the study does not seek to entirely sacrifice rationalism and by extension logic merely because of occasional misuse or abuse of logic. Since rationality is here construed to involve two aspects, internal consistency and coherence

on one hand and practical considerations that occasionally dictate variability (the internal standard and the external standards respectively), the study adopts rationalism to ensure the internal standard and empiricism to ensure the external standard. In this regard, rationalism and empiricism are adopted to complement each other in order to capture the wider and more comprehensive conception of rationality that is construed in this study.

HYPOTHESIS

Legal positivism invariably satisfies the internal standard of rationality by emphasizing logical consistency and coherence within the law and legal adjudication but fails to invariably satisfy the external standard of rationality by omitting morality and sentiments from its conception of the law and legal adjudication.

METHODOLOGY

This study proceeds by a reflection, analysis and evaluation of the cognate concepts (logic, rationality and legal reasoning). The objective in this regard is to establish and expose the interrelation (if any) of the concepts against the background of their theoretical foundations and practical import and tenability. The objective of the analysis, evaluation and reflection is to a significant extent discern, expose, and explicate the essential and central tenets that constitute and define the concepts. The activity also provides a firm theoretical foundation upon which the subsequent examination of the practical relevance and possible interrelation of the concepts proceeds. The study thus entails an exposition and explication of the relevant concepts and issues by way of showing their theoretical foundations and also evaluates the corresponding practical implications.

For the expository part, library research was undertaken. In this process, primary and secondary information was obtained. Excerpts of actual facts as adduced in courts of law and otherwise, verbatim quotations of arguments presented by judges, their opinions and decisions together with the arguments and submissions presented by lawyers as recorded in law reports, journals, law books and the print media or as recorded and/or observed in the electronic media (radio and television) constitute some of the primary information considered. Primary information was also obtained from commentaries, views, opinions and arguments as postulated by individuals such as politicians, scholars and the general public as recorded in books, journals and the print media or as recorded and/or observed in the electronic media and through informal interviews.

A focused following of the proceedings and conclusion of some court cases, issues and developments of juridical import in Kenya and in other places was undertaken. Here, the objective was to discern, expose and evaluate the underlying doctrines, main points of contention and the principles underlying such contention. This activity was aimed at evaluating juridical reasoning in real life situations in the light of the relevant and respective theoretical underpinnings and practical implications. Examples in this regard included the presidential pardon of Mr. Njehu Gatabaki by the then president (Daniel Toroitich Arap Moi) after Gatabaki had been charged and convicted for defamation in 2002. President Mwai Kibaki's refusal to approve Dr. Julius Rotich's name to the Kenya Anticorruption Commission (KACC) despite the formal requirement that he approves the name in accordance with the relevant Act of parliament was another scenario that was considered by the study due to the theoretical and practical assumptions and implications that could be read. The Goldenburge inquiry tasked to investigate the Goldenburge Scandal and the Akiwumi Commission tasked to investigate Justice Philip Waki were the other instances of juridical value and interest to the study. Actual court cases included the Riggs v. Palmer case (New York, 1889), Owens v. Owens, Donoghue v. Stevenson (1932). The other case considered was the Dr. Margaret Gachara's case (2004) (a former director to the National Aids Control Council in Kenya) where Dr. Gachara was charged, convicted but later pardoned by the president (Mwai Kibaki). The Charles Njonjo treason case was another case considered in this study.

Talk shows on legal or juridical themes were also a major source of primary information obtained from the electronic media. The KTN television talk show, the Third Opinion, the Nation television talk show, Up Close & Candid and the Citizen television talk show, *Mgaragazano*, all served to present a practical and real life scenario for purposes of the research. In this regard, the purposive sampling approach was adopted to identify the relevant episodes since it is only the relevant and specific themes within the scope of the study that were of interest and thus to be considered. The purposive sampling approach was adopted also because it is only the issues, arguments and principles that were relevant in the light of the scope of the research that deserved consideration.

Secondary information was obtained from scholars' and individuals' views, opinions and the corresponding schools of thought, hypothetical scenarios and commentaries as presented in books, periodicals and journals. Library research was the main activity in this regard.

Thus, the methodology adopted was fundamentally expository, dialectical, analytic and evaluative in nature. Synthesis was also entailed. The preceding holds for instance to the extent that a derivation (so to speak) of the concepts on the basis of the central tenets imbibed in their technical and ordinary meaning and application was undertaken. This constituted the analytic aspect of the research methodology. The extent to which the relevant concepts and the correlative schools of thought could be said to relate to each other in the light of their theoretical foundations and concrete practical implications illustrated the synthesis involved. All this was done in the light of the competing schools

of thought and this constituted the dialectic aspect of the methodology. To this extent, the study was fundamentally a conceptual analysis.

2.0.0 CHAPTER TWO

RATIONALITY: The Central Tenets and an Evaluation of the Impact of Science on its Conception and Definition.

This chapter seeks to present a comprehensive and reconciled conception of the concept of rationality with the objective of bringing to the fore the central tenets and fundamentals that inform it. This is achieved by establishing the theoretical (or abstract) and practical (or concrete) foundations of the concept. The chapter proceeds by an exposition and a critical analysis of the ideas of various scholars and the relevant schools of thought on the subject. To this end, the chapter provides a basis for a subsequent analysis of the relevance of logic in defining and determining rationality in especially legal reasoning.

Rationality is an honorific, an endorsement and a word of praise. Saying that something is rational is to give it high marks indeed. In philosophy for example, saying that something is rational is in a sense to give it the highest marks especially given the current timidity about asserting that any philosophical claim is "true". To say of a person's behaviour or of an idea that it is rational is to say that there is something very right about it, something orderly, fit, appropriate and praiseworthy.

Rationality is construed and defined in this study, not on the basis of the relative norms of rationality of the relevant cultures but on the basis of an ideal theory of rationality. Such a theory is one which would give the necessary and sufficient conditions for a belief or action to be rational in the relevant circumstances in any possible world However, there is a general difficulty with the proposal to treat 'rational', 'reasonable', justified', etc, as natural kind terms. This is due to the difficulty of actually finding accurate generalizations [Putnam, 1985: 102].

Robert Nozick in his book *The Nature of Rationality* says that rationality provides human beings with the (potential) power to investigate and discover anything and everything. That it enables humans to control and direct their behaviour through reasons and the utilization of principles. In this regard, rationality is a crucial component of the self-image of the human species, not simply a tool to be used to gain knowledge or to improve human lives and society. Nozick says that the evolutionary theory makes it possible to see rationality as one among other animal traits, an evolutionary adaptation with a delimited purpose and function [Nozick, 1993: xiii-xvi).

Nozick goes further to say that rationality has not been merely the philosophers' special love and an important part of their subject matter. For him, rationality has been the philosophers' special tool for discovering truth, a potentially unlimited one. He holds that if rationality is an evolutionary adaptation with a specific purpose and function (instrumental conception of rationality), designed to work in conjunction with other stable facts that it takes for granted and builds upon, and philosophy is an attempt of

unlimited scope to apply reason and to justify rationally every belief and assumption, then it can be understood why many of philosophy's traditional problems have turned out to be intractable and resistant to rational resolution. In other words, if philosophy is an attempt of unlimited scope to apply reason and justify rationally every belief and assumption, then one can understand why philosophy's traditional problems have turned out to be intractable and resistant to rational resolution if rationality is an evolutionary adaptation with a purpose and function that is fixed. Nozick's belief is that these problems may result from attempts to extend rationality beyond its delimited evolutionary function. The problems he has in mind are the problem of induction, of other minds, of the external world, and of justifying goals.

Rationality in philosophy at least, threatens to become the "thinnest" concept of them all, "thought thinking itself" (Aristotle). 'Rationality' often tends to become pure logic, mere "reasoning" devoid of or at least independent of sensitivity, curiosity, and experience. It is in this regard that rationality may be perceived to constitute a formal coherence of preferences in a way that can be expressed by a set of axioms [Nozick, 1993: xiii-xvi]. In this tradition of thought, 'reason' and reasoning are given the highest status in the conception and definition of rationality. This tradition of thought owes its doctrine to Plato, Aristotle and sometimes Kant. The thinking in this regard is that our passionate natures should come entirely under the control of truth and reason.

It is however quite important to note that reason is not a neutral instrument to achieve knowledge and truth, and yet it would be absurd to talk meaningfully about rationality

without founding and guiding such discourse on knowledge and truth as imperatives. It is against this presumption that it is accurate enough to say that reason does not rule alone, outside its historical context [Steuerman, 2000: 2-5]. The point that is highlighted here is that reason rests on factors such as interest, motive and feelings. Reason does not exist in a vacuum, outside its historical context.

Hume echoes the conception of rationality in formal axiomatic terms in his work, *Treatise of Human Nature* (book 2,111, iii). In this conception, rationality is construed as a means only, as purely "instrumental". This implies that ultimate ends are neither rational nor irrational. However, taking the ultimate goals of life out of the realm of rationality by putting such goals beyond criticism, evaluation and appraisal is precarious to the extent that Hume himself recognizes the danger when he comments that "it is not contrary to reason to prefer the destruction of the whole world to the scratching of my finger".

It is however in the recognition of the limits of reason that Steuerman (2000: 2) in his work, *The Bounds of Reason* says that:

> The main problem, however, springs from an approach to reason as a faculty that can be abstracted from its context. Reason as 'the mind', separated from both the body and the world of emotions, beliefs and values that surround it, cannot survive. In other words, rational knowledge, when abstracted from the individual subjects' history and from the historical tradition which produces its self-understanding, is a myth that creates insoluble questions. In a sense, this dilemma is

> present in Descartes already, in so far as, in the *Meditations*, the only possible justification for rational knowledge is to be found in his (irrational) *belief* in God and the order he created. Reason in the end requires that which it is not, that which it is supposed to overcome and replace.

The American pragmatism theorist William James speaks of two primary passions in philosophy, "the passion for distinguishing" (the appreciation of the uniqueness of each event or reality) and "the passion for simplicity" (the assumption of the uniformity and order of events or reality). These two passions together form a "dialectic" that escapes the model of rationality of linear "reasoning" and suggests that rationality is something more complex and interesting than mere "reasoning". It is in the same light that it suffices to give the example of a tendency to a general confusion in discussions of ethics of what Kant called "practical reason" with practical reasoning. The latter may be instrumental, but the former is far richer and more complex, concerned as it is with ends as well as means.

In the same breathe of the need to distinguish between rationality in general and a narrower conception of rationality in instrumental terms is the Weberian recognition of modernity as an 'iron cage', where rationality, as means-end rationality, transforms thought and culture into meaningless operations aimed solely at success and efficiency. Thus, rationality ends up being instrumental rationality and realms of social, political and even artistic life boil down to questions of the efficiency of experts in achieving certain ends. It is against this conception of rationality in instrumental terms that the dimension

of meaning and the issues of quality of life and humanity have disappeared in a world dominated by criteria of efficiency and success measured quantitatively, generally in financial terms [Weber, 1978: 14].

Rationality, at its core, suggests something rich and textured about experience. It is on this basis that, accordingly, reasoning is construed not to be limited to the ability to criticize and argue or even to "figure things out" but to also include the perspicacity and vision to see complexity as order, to find meaning in disorder and confusion, to distinguish as well as to simplify [cf. Solomon, 1999: 67]. In the same breathe, Robert Nozick in his work *the Nature of Rationality* cautions that mere criticism and the technique of argument, without perspicacity, caring and vision, are not only empty outside of philosophy, they tend to be blind, threatening to cause a social catastrophe by promoting cynicism [Nozick, 1993: xiii – xvi]. In this alternative tradition is the contention that we for example talk of reasons to reflect the fact that we already care.

The nature of rationality is better understood by developing better and better philosophical conceptions of it. This has been approximated in analytic philosophy through philosophers of science and two significant tendencies are observed in these efforts. These trends are logical positivism and 'anarchism' or relativism.

For a significant period of the recent past, there has been the tendency to think of the methods of 'rational justification' as given by something like a list or canon. This line of thought is what is usually referred to as logical positivism. It is a manifestation of

modernism (the celebration of reason). Positivists had believed in the possibility of philosophers of science to ultimately postulate such a list or canon. Such a canon was supposed to exhaustively describe the 'scientific method' which (the scientific method), to them (the positivists), exhausts rationality itself. To the positivists, testability by that method exhausts meaningfulness ('The meaning of a sentence is its method of verification'). The list or canon would determine what is and what is not a cognitively meaningful statement. In this regard, it is only the statements, which were testable by the methods in the list (the methods of mathematics, logic and the empirical sciences) that would count as meaningful; all other statements were construed by the positivists to be 'pseudo-statements', or disguised nonsense.

The forms of 'verification' allowed by logical positivists are forms, which have been institutionalized by modern society. In this regard, what can be 'verified' in the positivists sense can be verified to be (in a non-philosophical sense of 'correct') correct, or to be probably correct, or to be highly successful science (as the case may be). As Putnam [1985: 106] says, "the public recognition of the correctness, or probable correctness, or the 'highly successful scientific theory status', exemplifies, celebrates and reinforces images of knowledge and norms of reasonableness maintained by our culture".

The logical positivists or logical positivism as a school of thought thus propounds a criterial conception of rationality to the extent that it prescribes a conception of rationality according to which there are institutionalized norms which define what is and is not rationally acceptable. However, it is extremely improbable that there can be

conceptualized a philosophical position of any importance that can be verified in the conclusive and culturally recognized way implied by logical positivism. This is because the logical positivist criterion of significance itself (the verifiability principle or criterion) is neither analytic (verifiable on account of an examination of the statement itself) nor empirically testable, conditions set for reasonableness by logical positivism. It is in this regard that Putnam (1985:111) says that:

> If there is such a thing as rationality at all – and we commit ourselves to believing in some notion of rationality by engaging in the activities of speaking and arguing – then it is self-refuting to argue for the position that it is identical with or properly contained in what the institutionalized norms of culture determine to be instances of it. For no such argument can be certified to be correct, or even probably correct, by those norms alone.

However, Putnam clarifies that he does not at all think that rational argumentation and rational justification are impossible in philosophy, but rather that he is driven to recognize something which he believes is probably evident to laymen if not to philosophers, that public norms cannot be appealed to for purposes of deciding what is and is not rationally argued and justified in philosophy.

The claim that all rational justification in philosophy is criterial (the implication of upholding the logical positivist basis for reasonableness and rationality in philosophy), and that philosophical truth is as publicly demonstrable as scientific truth is irreconcilable with the history of the subject (philosophy). Discourses in metaphysics and Ethics offer

an accurate rebut to the "publicly demonstrableness" requirement. Though metaphysical notions such as essence, substance, form, among others may not be necessarily and always publicly demonstrable, one would be hesitant to conclude that discourses on such concepts are simply nonsense or more serious, unreasonable or arational (cannot be said to be rational or not i.e., fall outside the realm of rationality). As Putnam (1985: 113) categorically asserts:

> "... arguing about the nature of rationality (the task of the philosophers par excellence) is an activity that presupposes a notion of rational justification wider than the positivists notion, indeed wider than institutionalized criterial rationality".

Alternatively (against the criterial conception of rationality), in the works of some philosophers of science such as Thomas Kuhn's *The Structure of Scientific Revolutions* and Paul Feyerabend's *Against Method*, is echoed the doctrine of 'anarchism' manifested in the incommensurability thesis. Through the notions of paradigm, normal science, and scientific revolution, Kuhn emphasized what may reasonably be interpreted as 'irrational' determinants of scientific theory acceptance. For instance, Kuhn's contention that there is no such thing as rational justification in science, that what there is is just *Gestalt* switches and conversions constitutes (to a great extent) part of the genesis of the doctrine of anarchism or incommensurability. Although Kuhn may reject this interpretation of the structure of scientific revolution (SSR) by introducing a notion of 'non-paradigmatic rationality' which is closely related to (if not the same as) what Putnam (1985: 113) calls 'non-criterial rationality', the implications of his conception of the structure of scientific

revolutions imply nevertheless what may be deemed as 'irrational' determinants of scientific theory acceptance.

Feyerabend in his work, *Against Method.* stressed the manner in which different cultures and historic epochs produce different paradigms of rationality. In his opinion, what ordinarily determines conceptions of scientific rationality are determinants that may be called irrational. He in fact suggests, beyond Kuhn, that even the vaunted instrumental superiority of science may be somewhat a hoax. In this regard he cautions that Faith healers can do more to relieve one's pain than doctors.

However, notwithstanding such radical claims by Kuhn and Feyerabend which are founded on an assumption that is tantamount to anarchy (hence anarchism), there is what is discerned in their two works noted, this is the incommensurability thesis. This is the thesis that terms used in another culture cannot be equated in meaning or reference with any terms or expressions in a different historical epoch and culture. Kuhn for instance holds that scientists with different paradigms inhibit 'different worlds'. But this kind of thinking is difficult to reconcile with the fact of translating other languages or even comprehending the language and ideas of a different historical epoch and culture. It involves serious incoherence in the light of the fact that a number of terms have historically been discussed over long periods of time notwithstanding change and variations in culture.

Though conceptions may vary over time and place, the relevant concepts remain constant in so far as they are concepts. It is only in this understanding that one would coherently talk of the history of Philosophy for example (the varying conceptions of the same concepts by virtue of time and place). The incommensurability thesis thus seems to confuse or conflate concept and conception. As Putnam (1985: 119) correspondingly notes:

> Not only do we share objects and concepts with others, to the extent that the interpretive exercise succeeds, but also conceptions of the reasonable, of the natural and so on. For the whole justification of an interpretive scheme, remember, is that it renders the bahaviour of others at least minimally reasonable by our lights. However different our images of knowledge and conceptions of rationality, we share a huge fund of assumptions and beliefs about what is reasonable with even the most bizarre culture we can succeed in interpreting at all.

To the preceding extent, the ideas of Kuhn, Feyerabend and even Michael Foucalt imply relativism with regard to rationality to the extent that all there is to 'rationality' is what the relevant local culture postulates. Although none of the above 'anarchistic' thinkers embraces relativism in the sense alluded, relativism in the sense is the natural limit of their terrain of thought.

Hitherto, the influence of science on the conception of rationality can be appreciated. The scientific approach has to that extent become the guiding principle and the foundation of what passes as rational. This phenomenon is what is described in this study

as scientism. Thus, rationality in the sense in which it has been discussed so far (as construed by logical positivists, and the philosophers of science noted) is informed by scientism.

It is in this light that Putnam (1985:126) says that:

> The scientistic character of logical positivism is quite overt and unashamed; but I think there is also a scientism hidden behind relativism... That rationality is defined by an ideal computer program is a scientistic theory inspired by the exact sciences; that it is simply defined by the local cultural norms is a scientistic theory inspired by anthropology.

Putnam goes further to quite categorically say that:

> All this suggests that part of the problem with present day philosophy is a scientism inherited from the nineteenth century – a problem that affects more than one intellectual field. I do not deny that logic is important, or that formal studies in confirmation theory, in semantics of natural language, and so on are important. I do tend to think that they are rather peripheral to philosophy, and that as long as we are too much in the grip of formalization we can expect this kind of swinging back and forth between the two sorts of scientism I described. Both sorts of scientism are attempts to evade the issue of giving a sane and human description of the scope of reason.

It is also fair to note that Auguste Comte is a significant positivism theorist. Positivism in Comte's scheme is derived historically beginning with primitive myths, which were

refined and purified to a level where religions appeared. These religions were the basis of the metaphysical theories as Plato's (the world of the senses and that of the ideas, Forms or the suprasensible world). Such metaphysics, in Comte's thinking, were in one way or the other the genesis of, and had to eventually give way to the modern 'positive science'. Three historical epochs are thus observed in the progress and development of thinking. These are the mythological, metaphysical and positive or scientific. The positive or scientific comes out as the most refined and 'civilized' of all epochs and thought.

But the celebration of science seen in the criterial and relativistic (exemplified by 'anarchistic' and incommensurability theses) conceptions of rationality notwithstanding, there is need to caution the reduction of rationality to such scientistic conceptions founded on logic. It is in the light of this caution that Toulmin in his paper presented at The International Congress For Logic (1971) titled "Rationality and The Changing Aims of Inquiry" says that in dealing with questions about the 'rationality' of conceptual changes in science, the logistic approach to the philosophy of science has involved one long *ignoratio elenchi* (the fallacy of appealing to ignorance).

Toulmin says that having confined themselves to questions about the formal relations between the propositions of science, the philosophers concerned have not had an alternative but to identify 'rationality' with logicality, and to look for some index of rationality within the formal properties of scientific arguments. This has had the effect of distracting the attention of the relevant philosophers from the very class of cases and

situations about which 'rational' questions arise most urgently and significantly. These are the cases and the situations in which more or less far-reaching changes are introduced into the basic concepts and presuppositions of a science with the result that strictly formal relations no longer obtain between the older theoretical propositions of science and the new.

An over preoccupation with logical coherence and systematicity has thus led to an overemphasis on the validity of intellectual steps that are taken within the framework of a science at some one particular stage in its development. It has correspondingly swept aside questions about the steps by which scientists move from one set of explanatory concepts to another later and logically incongruous set of concepts (especially perceived in the context of Kuhn's "paradigm shifts" and Popper's "constant conjectures and refutations", the apparent relativism or anarchism).

It is against this background of scientism that there has been doubt as to whether value judgments have any cognitive status. The basis of the doubt is the apparent impossibility of 'verifying' value judgment by 'the methods of science'. The cognitive import of value judgment has also been questioned on grounds that one cannot get universal or even majority agreement on ethical matters. Questions of ethics, it is held for example, cannot be demonstrated to everyone's satisfaction. Since popular thinking is that the correctness of a scientific theory can be demonstrated to everyone's satisfaction and answers to ethical questions cannot be demonstrated nor verified whereas it is only by the scientific

criterion (demonstration and verifiability) that reasonableness can be tested, ethical answers have, in that line of reasoning, no cognitive import, if not merely dubitable.

However, it is difficult from commonsense to accept that instrumentalism (the epitome of scientism) does simply in and of itself constitute a tenable conception of rationality [Nozick, 1995: 107-119,133-172]. If that were the case, then one would not have a ground to generally ascribe rationality to man regardless of historical time and culture. This is because what informs instrumentalism is the overwhelming material and technological success of science. But the material and technological success has evolved over time (and there is historical, archeological and anthropological evidence to that effect), meaning that the 'primitive' man could not be said to have been rational. Such a conclusion, which is the logical implication of tying rationality to science and instrumentalism, is not consistently tenable.

In his caution on the conception and definition of rationality on the basis of instrumentalism, Putnam (1985: 178) holds that:

> Intellectually, of course, instrumentalism does not simply in and of itself constitute as such a tenable conception of rationality. No doubt scientific results have enormous practical value; but as we have already said, no educated person thinks that science is valuable solely for the sake of its applications and even if science were valued solely for the sake of its applications why should rationality be valuable solely for the sake of its applications? To be sure it is of value to have an instrument that helps us select efficient means for the attainment of our various

> ends; but it is also valuable to know what ends we should choose. It is not surprising that the truth of value judgments cannot be 'rationally demonstrated' if 'rational verification' is by definition limited to the establishment of means – ends connections. But why should we have such a narrow conception of rationality in the first place?

Apart from the fact (as discussed above) that instrumentalism cannot be consistently maintained as a basis for defining rationality, 'majoritarianism' is also not a consistently tenable basis for the conception and definition of rationality. Although it is desirable for agreement to be there on what is taken to be true and also that it is good to avoid and minimize conflict, people have lived for centuries with the uncomfortable knowledge that on some matters one has to rely on one's judgment even though it may differ from the judgment of the majority. This is to be appreciated on the basis of the fact that on some matters, especially ethical, the cognate considerations to be weighed are often so complex and so imprecise that scientific proof cannot be relied on. It is also plausible that one of the highest manifestations of rationality should be the ability to judge correctly in precisely those cases where one cannot hope to 'prove' things to the satisfaction of the majority. It would be strange if one were to hold that because some things are impossible to prove to everyone's satisfaction that then beliefs about those things are irrational.

The intellectual weaknesses of the conception of rationality on the basis of instrumentalism and majoritarianism (the scientistic, narrower conception of rationality) notwithstanding, the conceptions are powerfully appealing and popular to the contemporary mind. As Putnam (1985: 179) puts it, "The contemporary mind likes

demonstrable success; and the contemporary mind is uncomfortable with the very notions of judgment and wisdom." Thus far, rationality has been shown to have been construed as consisting in methods which, whatever their nature, give rise to the discovery of effective means/ends connections and the public (demonstrable) establishment of these connections. However, it has also been shown that such an instrumentalist and/or majoritarian conception of rationality is not intellectually tenable though philosophical attempts have been made to sustain the conception. For instance, one of these attempts stems and develops from the older Empiricism of Locke, Berkeley and Hume. By the time of Mill, this Empiricism had crystallized in what, in philosophy, is called phenomenalism.

Phenomenalism is the doctrine that what can ultimately be talked about are the sensations. In this regard, as Mill put it, physical objects are 'permanent possibilities of sensation'. This line of thinking leads to the conclusion that all talk that appears to be about the physical world, or whatever, is really just highly derived talk about sensations. This position would enable one to say clearly what the content was of science and also all cognitively meaningful talk whatsoever. This implied that traditional theology, Ethics and metaphysics had to be relegated to the obscure shelves of oblivion from the world of cognitive meaning or meaningfulness.

But there is a significant epistemological question that phenomenalism and its emphasis on sensations generates. The question is how do you know that a person associates the same sensations with his descriptions that you do? For the reason of the epistemological

problem echoed in the question, Rudolph Carnap and Sir Karl Popper insisted that the observational predictions of science should be stated in the form 'if anyone performs such and such actions, then such and such publicly observable events will take place'. In this case, both the actions to be performed and the observable events such as meter readings are not in terms of such private objects as sensations.

In philosophy of science (as already alluded), there has been a belief that science proceeds by following a distinctive method. This method (if it exists) is such that by using it one can reliably discover truths. What explains the extraordinary success of science and the persistence of controversy in fields other than science is therefore (in the belief in the scientific method) that science and science alone has consistently employed this method. On this basis, such philosophy and belief as echoed in logical positivism and positivism in general leads to the implication and conclusion that rationality should be identified with the possession and employment of this method.

Beginning from the publication of Mill's *Logic* in the 1840s to the publication of Carnap's *Logical Foundations of Probability*, there was a belief in philosophy of science that something like a formal method ('inductive logic') underlies empirical science and that an explicit statement of this method could be achieved by continued work. This was the thought of a formalization of inductive logic that was compared to that of deductive logic. But Putnam (1985:192) cautions that:

> Formal rationality, commitment to the formal part of the scientific method, does not guarantee real and actual rationality...

> ... The hope for a formal method, capable of being isolated from actual human judgments about the content of (that is about the nature of the world) and from human values seems to have evaporated. And even if we widen the notion of a method so that a formalization of the psychology of an ideally rational human scientist would count as a 'method', there is no reason to think that a 'method' in this sense would be independent of judgments about aesthetics, judgments about Ethics, judgments about whatever you please. The whole reason for believing that the scientific method would not apply to or presuppose beliefs about ethical, aesthetics, etc., matters was the belief that the scientific method was a formal method after all.

But it is not possible to draw a sharp line between the actual beliefs of scientists and the scientific method. In this light, it is accepted that there is a scientific method. But this method presupposes prior notions of rationality. This method cannot then be validly taken or conceived to be the very definition of rationality. In fact, Mill concedes in the second chapter of his *Utilitarianism* that there is a scientific method, but it presupposes prior notions of rationality. Mill writes that we cannot expect the inductive method to work 'if we suppose universal idiocy to be conjoined with it.'

In fact, Putnam (1985: 200) comes out very categorically to caution against equating and identifying rationality with scientific rationality as so far discussed. He contends that to identify rationality with scientific rationality as described so far would be to beg the question of the cognitive status of value judgment. This, he believes, would be to say these judgments are not rationally confirmable because they are value judgments for

rationality has been defined as consisting exclusively of raw and neutral observation and the drawing of inferences from value-neutral premises. Putnam wonders why one should accept such a definition.

So far, it should be appreciated that broadly speaking, there are two conceptions of scientific rationality (which have been equated by extension with rationality in general or as a whole), one that has in the discussion been described as a criterial conception and another described as a non-criterial. The criterial conception of rationality is scientistic and an exemplification of it is logical positivism and positivism in general beginning from Comte to the Vienna circle philosophers. In this conception, the verifiability criterion for instance becomes the basis of reasonableness and cognitive significance of beliefs, statements and so on. Logical positivism is outstanding in the upholding of the doctrine of verifiability.

But due to the difficulties and criticism of the verifiability principle, Karl Popper prescribed the falsifiability principle. However, the point to note is that the criterial conception of rationality seen in verifiability or falsifiability is inadequate and cannot be consistently sustained as an all encompassing, comprehensive and accurate conception and definition of rationality.

It has also been shown that none of the versions of the criterial conception of rationality, be it instrumentalism or majoritarianism is comprehensive and accurate enough to define rationality in general. That though these theses may reasonably approximate the

definition of scientific rationality, they are poor candidates for the definition of rationality in general.

The competing doctrine to the criterial approach to the conception of rationality is the non-criterial approach. This is seen in what has so far been described as 'anarchism', which boils down to relativism. Here, Thomas Kuhn with his thesis of paradigms, Paul Feyerabend who like Kuhn, stressed the manner in which different cultures and historic epochs produce different paradigms to the extent that what determines the conception of scientific rationality are largely irrational, Michael Foucalt among others, serve as examples. This line of thought (as has been shown) leads to problems and questions with regard to translation and general communication in the light of issues that have been of concern in the long history of science. To that extent, the non-criterial conception of rationality as well, at least as construed in relativism or 'anarchism', cannot be constantly sustained as an appropriate and accurate basis for the definition of rationality in general (an apparent overstatement which was at least implied by such philosophers of science as mentioned and discussed).

Thus far, any scientistic conception and definition of rationality (whether criterial and founded on verifiability or falsifiability, instrumentalism or majoritarianism, or non-criterial in the form of 'anarchism' or relativism) has been shown to have internal shortfalls as an accurate definition or conception of rationality in science itself. When extended to define rationality outside of the realm of science, such a conception is shown to be begging the question. It is also important to note and highlight that any scientistic

conception and definition of rationality in one way or the other presupposes and relies on the scientific method which ultimately speaking, becomes, in a sense, the yardstick for reasonableness, cognitive import and rationality in general. This is in the sense that what follows or can follow this scientific method, what can be subjected to this scientific method or what is arrived at by this scientific method and only that, is reasonable, is cognitively significant and therefore rational. This has been shown to be problematic to the extents already alluded.

However, the doctrine of method pervades and is echoed in both the criterial and non-criterial conceptions of rationality. It is in this regard of sharing in the doctrine of method that both the criterial and non-criterial conceptions of rationality are described as scientistic conceptions and definitions of rationality regardless of the subtle nuances that may be identified in them.

The upholding of the doctrine of method leads to the relegation of traditional theology, Ethics and metaphysics to a subservient echelon. The basis for such relegations is the belief and contention that traditional Theology, Ethics and Metaphysics cannot be subjected to the method of science. The reason for which these disciplines cannot be subjected to the method of science is that these disciplines involve statements and judgments, which are either emotive or generally not verifiable nor falsifiable.

This position leads to intellectual discomfort both to honest philosophers of science and the average person due to the dictates of common sense. The contention that emotion and

the fact of non-verifiability and/or non-falsifiability are sufficient and are actually a basis for irrationality is seriously contestable. The following quotations shade light on the magnitude, significance and validity of the concern for the rejection of emotion in the edifice of rationality, which is the common and popular position. These include:

"As if every passion didn't contain its quantum of reason!"

Nietzsche, *Will to Power*

"The heart has its reason, which reason does not know".

Pascal, *Pense 'es*

"The word philosophy means love of wisdom, but what philosophers really love is reasoning."

Robert Nozick, *The nature of rationality*

Solomon (1999) is an author who has come out very strongly to defend the position that emotions should not necessarily be removed from the edifice of rationality. Socrates, the great champion of reason took as his motto the slogan at Delphi, "know thy self" and the other extreme injunction "The unexamined life isn't worth living". Solomon maintains that part of that knowledge is our understanding and appreciation of our emotions, which are, after all, much of what does make life worth living. He says that emotions are a matter (to use a contentious phrase at this juncture) of immanent rationality.

To talk about emotions in terms of politics is to argue that the emotions quite unlike mere feelings and more primitive responses, are purposive, strategic, intelligent – in other words, rational. But it would still be an underestimation of the power and importance of emotions if they were merely thought of in these means-ends, "Instrumental" way, as means of getting what we want in the world. Emotions are therefore means, but they are often the ends as well. Love is not just a means but also an "end in itself". Sadness and grief need not be means to anything but they nevertheless play an essential role in our lives. Anger may be a means, but it also represents a certain stance in life, a way of being. The rationality of anger may well come down to the appropriateness or "fit" of that emotional stance in a well-ordered or rational life [cf. Walton, 1992: 65-97, 105-140, 152-158, 253-276].

The question addressed at this point is, "is the defense of emotion and the passionate life a rejection of rationality, or an addendum, perhaps a complement or even an enhancement of rationality?" The passionate life is not living irrationally without reason or against reason. Solomon (1999) argues that our emotions provide us with reasons but the passionate life is itself a rational way to live. In this case, rationality is not independent of the passions nor is it merely the logical structure around which the emotions take their proper place. In other words, it is not as if emotions are to be judged in the mighty court of reason. Reason is itself subject to judgment and not (as to Kant) in its own court of law. Perhaps the question should be how does rationality satisfy our passions, in particular, our passion for life?

Hamblin (1970: 43) discusses the fallacy of appealing to mercy (*ad misericordiam*) and doubts whether it is really a fallacious type of argument to the extent presumed by the standard treatment of the textbooks. He notes that in a lawsuit or a political speech, propositions are often put forward in an argument as guides to action and that where action is concerned, it is not so clear that pity and other emotions are irrelevant.

According to Freeman (1988: 74), the arousing of pity "does not guarantee that we have a fallacious appeal to pity", although such an appeal is fallacious "when factual considerations are relevant". For him, the appeal to pity is fallacious if it cannot be determined whether the emotion was appropriate or not.

It is in this light that Walton (1992: 106-107) says that:

> But is it possible to determine in a given argument whether the argument is partly about sentiments or whether only "the facts" matter? Perhaps in some cases, this can be done. In a charitable appeal, sentiments are clearly relevant and important. In a scientific inquiry – for example, in geometry or physics – where a proof is being given or an experimental result presented, sentiments and appeals to pity are clearly of no evidential worth. But what about a critical discussion on some subject of ethical controversy, like abortion or euthanasia? Are facts all that count here, or do sentiments have some place in the arguments? In such a case, the criterion that calls for a positivistic

> bifurcation falls down. Sentiments can be relevant, but they can also be played on excessively or in an inappropriate way.

Walton goes further to say that the positivistic approach yields a false optimism that facts are one thing, sentiments another, and that there is generally no problem of telling when sentiments are irrelevant. On the contrary, in a critical discussion this judgment requires a careful examination of the evidence from the text of discourse and the context of dialogue. It is on this ground therefore that Walton demands that relevant evidence be marshalled to properly substantiate the allegation or claim that an appeal to pity is fallacious. Such evidence would be expected to show that the appeal is irrelevant or inappropriate [Walton, 1992: 107].

Although Cederblom and Paulsen (1982: 100) propose that an appeal to emotion in argument is illegitimate if it presents a motive in place of support for a conclusion, Walton (1992: 107) insists that though in a critical discussion on an ethical controversy like abortion or euthanasia the dialogue is concerned with the reasoned commitments of the participants, to a certain extent this concern is with acceptance of propositions as true or false, justified or unjustified, but it is also with public policies and how people should act. To him therefore, motives and sentiments may properly be involved in such arguments, although they may be appealed to in a fallacious or inappropriate way in other arguments.

In fact, Damer (1980: 88) and Weddle (1978: 35) hold that appeal to pity in persuading someone toward a particular course of action can be non-fallacious. Weddle's

proposition is that an appeal to pity is a relevant appeal if "presented with a force proportional to the issue's claim to consideration". In this regard a fallacious appeal is one that "milks the issue" by going to excessive lengths, or using the appeal to pity in a heavy-handed way that tries to push it far beyond its reasonable weight as a claim to consideration. To this extent, appeal to pity is seen as legitimate in many contexts of argument and the fallacious appeal to pity is seen as arising out of specific faults where the appeal has been used inappropriately or laid on excessively. This is because the approach does not depend on an appeal to a sharp dichotomy between facts and values as the sole distinguishing criterion for judging cases.

However, Walton (1992: 108) holds that Damer (1980: 88) and Weddle (1978: 35) make the problem more subtle and sophisticated and therefore difficult to solve. The question that Walton raises regards how one would tell the difference between the fallacious and non-fallacious appeals to pity in argumentation.

To address this question, Walton says that the old, positivistic idea that some arguments are about facts and other arguments are about sentiments is not only based on an epistemological dualism that many consider untenable, but it is also of little or no help in important cases. Perhaps sentiments can be clearly and decisively excluded where the context of argument is that of a scientific inquiry. But even if pity is relevant, for example in a charitable request or argument for action to help someone, the appeal to pity may be put forward in an inappropriate, heavy-handed, or fallacious way [Walton, 1992: 108].

Much does depend, however, on the context of dialogue of the given argument. As stated above, an appeal to pity as an argument worthy of consideration and weight must be judged quite differently in a charitable appeal for help than in a scientific inquiry. In a critical discussion, sentiments as well as facts are important in fulfilling the goals of the dialogue. Facts make for a well-informed discussion. But sentiments are also important because in order to find premises that represent real commitments, one needs to appreciate that the respondent will stick to and not retract easily. In this case, the arguer must judge by empathy what the respondent's basic position is [van Eemeren and Grootendorst, 1984: 167].

Conjectures must be made based on presumptive reasoning concerning the respondent's dark-side commitments on the issue of the dialogue. This means articulating the feelings or sentiments of the respondent based on how the arguer thinks he or she responds, as a person, to the issue [Walton, 1992: 108-109]. What is a convincing argument for this respondent is therefore a matter of how the respondent feels about the issue. So sentiment is not irrelevant (in a critical discussion) to evaluate whether an argument is successful or not in relation to the goals of the discussion [Walton, 1992: 108-109].

From the discussion, it is notable that philosophers often praise logic and argument to the exclusion of everything else. And as Solomon says, "this compulsive focus on the thinnest aspect of philosophy has chased good students, the public and academic colleagues away in droves and it has led some (perhaps foolishly) to ally themselves with

those philosophers who seem to reject rationality altogether [Solomon, 1999: 68]". Thus far, it is imperative that for one to realize a more accurate and comprehensive conception of rationality, emotion has to be given its due regard, at least as so far discussed.

It is one thing to define an extremely "thin" non-normative conception of rationality, such as the ability to manipulate symbols or the choice of the most efficient means to an end or the inference to the best explanation. It is something quite different to specify what a well-ordered life, or in a different vein, a rich and all-embracing understanding of nature should be.

But so far as it has been shown, the rationality of science and the scientific method is the starting point for most contemporary discussions of rationality, whether science is taken as the paradigm or the recent intellectual fad, as the target of criticism. However, the idea that rationality admits of perspectives, as is exposed in the discussion on the criterial and non-criterial conceptions of rationality (in the context of science), raises serious questions. For example, is there such a thing as "the unity of science", not just in terms of the method (s) of scientific research and the nature of the questions themselves? Or, to touch a raw nerve, does it make sense to say that from a religious perspective, creationism might be more rational than evolutionary theory? If one admits that evolution has the whole weight of science behind it, does it follow that to accept the account in Genesis is irrational? If we define rationality in terms of the scientific method, in terms of evidence and the constrained inference and so on, what are we then to say about the rationality of science – simply (and unconvincingly) that it is rational by

definition? Is religion then, as echoed by logical positivism and all scientistic conceptions of rationality, inherently irrational, mere superstition? What about aesthetic visions of nature, which may offer something different than the elegance of scientific theories and an appreciation of the wonders of science? Nietzsche is often quoted and discussed in terms of his occasional suggestions that "there is no truth" and the like. Much closer to his heart are questions about kinds of truth and the comparative worth of scientific versus other kinds of perspectives [cf. Nehamas, 1985].

Entailed and inherent in any scientistic conception of rationality is the adoring and celebration of the indispensability of Reason in any meaningful definition of rationality. This stems from the credence ascribed to Logic and the logical foundations of science [Toulmin, 1971]. But caution to the apparent overemphasis on the supremacy of Reason in the edifice of rationality is registered in such assertions as:

"I can stand brute force, but brute reason is quite unreasonable. There is something unfair about its use. It is hitting below the intellect".

Oscar Wilde, *Portrait of Dorian Gay.*

There is surely a valid basis for suspicion about philosophical talk about reason. "Reason" is one of the concepts in philosophy that are fraught with theological overtones and interpretations. Some philosophers (e.g. Stoics) in fact insist that God Himself is "Reason" (thus short-circuiting any question about whether believing in Him is rational). The modest position in this terrain of thought is to describe Reason as "Godlike". All

said and done, Reason is often presented as if it were the ultimate arbiter, the supreme court of all human endeavors, the definitive method for resolving all disputes and disagreements, in and out of philosophy.

Reason is often celebrated on the presumption that to every dilemma there is a right answer, for every mystery and miracle a rational explanation, to every paradox a solution, and that to every (sensible) question there is an answer. The reigning premise of the seventeenth and eighteenth centuries (the enlightenment) was that everything could be explained, "the principle of sufficient reason". This is best known in the rationalists Spinoza and Leibniz, but it is clearly assumed even by the most skeptical empiricists – for instance, by Hume, who insists that there could not be miracles because they would violate this principle. The doctrine is that the universe is rational, because "God wouldn't do anything without a reason". The reasoning continues further that human behavior and human society, because humans are rational, can also be put in order, by human hands and human thinking, according to the same God-given reason and its natural laws. It is in this regard however, that Solomon (1999: 71) cautions by saying that:

> With such mighty claims and high expectations, with such promises and vision of transcendental unity in all things, it is no wonder that our modern age – the age of two world wars, nuclear weapons, and now the "New World Order" – is rife with disappointment, frustration and anger, all manifesting itself in "a rage against reason", in Richard Berstein's apt alliterative phrase. And, indeed, the promises of reason nowadays all too often resemble political campaign promises. Too, often, it is apparent that the emphasis on reason is really just rhetoric,

> an attempt to persuade the opposition of the superiority of one's position simply by calling it "rational", by submitting an argument that cannot be refuted and is thereby mistaken for a proof. (One of the more curious but enduring sophistical rhetorical devices in philosophy is the insistence that someone's failure to refute an argument for an outrageous position is thereby an argument in favor of the position).

Solomon goes on and maintains that there is a thesis a foot to the effect that rationality is a male, Caucasian, capitalist plot against woman, people of color and third world cultures. That so stated it is surely a misunderstanding of rationality. He however sympathizes with those who suspect that what is called "reason" and then employed against their sensibilities, customs and beliefs is nothing more than those school boy debating tricks that were mastered at Oxbridge and other elite universities and became part of the armament of colonial rule. It is in this light that Steuerman (1999: 1) says that:

> The big debate between the modernist and the postmodernist is a continuation of the old controversy about rationality. In general, the postmodernist claim that reason, being situated rationality, can no longer aspire to certainty, they also argue that the modern defenders of rationality can no longer maintain that truth is an objective idea. One of the possible corollaries of this position is the belief in reason as an instrument of control and domination. According to this view, Western rationality, claiming to speak in the name of truth, has, in fact, furthered totalitarianism and terror.

Jean-Francois Lyotard also exposed the position that modernity is a reign of terror. This he did in his book *The Postmodern Condition*. In this book, he says that:

> We have paid a high enough price for the nostalgia of the whole and the one, for the reconciliation of the concept and the sensible, of the transparent and the communicable experience. Under the general demand for the slackening and for the appeasement, we can hear the mutterings of the desire *for a return of terror, for the realization of the fantasy to seize reality* [Lyotard, 1986: 2-91].

In this light, to put down the righteous anger provoked by exploitation or oppression in the name of being "reasonable" is just too obviously a power ploy. To dismiss the inarticulate indignation of the uneducated and deprived because their case is not rationally (that is properly) stated is, to put it minimally, to beg the question at hand. Too often, Solomon (1999) argues, rationality is involved to do no more than defend one's own interests.

There is often the use of "rational" whose function is that of a damper, a wet blanket, to put down compassion as well as the hotter passions in favor of cold, dispassionate reason. As Solomon says:

> the cause of those who care is dismissed with extreme prejudice, while the policies of those who can claim "rationality" – often in a particularly narrow, economic sense, favorable primarily to themselves – are favored. And how often the rational point of view turns out to be

> the uninterested (as opposed to the disinterested) point of view, the viewpoint of someone who is uninvolved, disengaged, even uncaring. Indeed, for every accusation of "irrationality", I would suggest that some explanatory elaboration be required, for example, "uneducated", "clumsy", "inattentive", "inefficient", "self-defeating", "not in accordance with procedures", "not conducive to the best outcome", "overly caring", "unjust", "unfair", or sometimes, "overly fair against our interests". In philosophy, I suspect the elaboration will usually turn out to be not so much "invalid", "unsound", or "incoherent" as something more along the lines of "heartfelt", "overly emotional", "too personally involved", or "embarrassing to me". ..."Rationality thus becomes an honorific whose elaboration may show it for what it is, cold professionalism, callousness, or insensitivity – or perhaps neurosis – in disguise [Solomon 1999: 72].

Philosophers however uphold rationality and interestingly even those who have in one way or another attacked it such as Kierkegaard, Nietzsche and Heidegger typically do so on recognizably rational grounds by employing argument, using analogy and counter example. They also employ thought and language and often do that grammatically and logically. This phenomenon is apparently a self-contradiction.

Although it may be thought that rationality is that virtue best exemplified by philosophers, rationality might ideally, dispense with the philosophers altogether and become pure thought thinking itself (Aristotle). But despite this sort of divine purity, the Anglo-American philosophers often become the actual measure of reason. In other words, despite such a postulation of rationality as absolutely objective and innocent of

human influence, philosophers from the western world have often been taken as the ones who determine what constitutes rationality. This is tantamount to tying the definition of rationality to what individuals or groups of individuals in the western world conceive it to be and not an exposition of what rationality is in itself, irrespective of historical, geographical or environmental influences. To this extent, all other putatively rational creatures including the squid, dolphin and the ape, the "primitive" and "developing" societies and also the most sophisticated cultures of the East are in this line of thinking more or less rational in so far as they are or are not capable of doing what philosophers in the (narrowly defined) Western tradition do so well - articulating abstract concepts, gathering evidence and mastering arguments, rooting out and criticizing presuppositions (including, of course, their own), reflecting on the meaningfulness of what they say, and disputing with those who raise objections against them.

To the extent that the discussion has gone, it is clear that the concept of rationality admits of no simple interpretation and as has already been observed, technical meanings have proliferated especially stemming and deriving from scientistic, western conceptions. Often, as should be so far noted, it is said or at least implied that rationality demands, not only the use of a complex self-referential language and the usual demands for consistency and coherence, but also a self-critical metatheory (Lehrer, 1997).

J.N. Mohanty (1989: 219) for instance argues that rationality not only must be conceived in terms of a philosophical view but also requires a "theory of evidence, rational justification, and critical appraisal ... and also a theory of these theoretical practices ".

But adopting this popular view (especially among western thinkers) of rationality and the rational life which requires such thorough going theoretical articulation renders invalid and inaccurate the ascription of rationality to any species of "higher" animal no matter how intelligent. In fact, and more serious, is that rationality and the rational life then would be a preserve of professionals in the modern formal sense. Also, such a demand and conception of rationality eliminates from candidacy a great many cultures in which self-reflection and self-criticism have not been encouraged or developed.

This last point can be appreciated when one follows keenly the debate on African philosophy, the "rationality debate" as D.A. Masolo (1995) referred to it in his work *African Philosophy in Search of Identity*. In the debate, there is a trend that is referred to as the conventional conception of the African mentality or the African thought system. Here are such scholars as William Frederick Hegel in his work, *The Philosophy of History*, Lucien Levy-Bruhl in his work, *Primitive Mentality*, Diedrich Westermann's, *The African Today* and J.C. Carothers in his work, *The Mind of Man in Africa*.

These scholars generally depict an African as a child in as far as rationality is concerned, that an African is more emotive than rational especially Hegel who thinks that an African is non philosophical and the very negation of reason (which in his opinion is the basis of rationality). Levy-Bruhl describes the African thought system as pre-logical. Carothers perceived the African thought system as similar to the Psychiatric cases. Here, the emotionality and the intuitive traits of the African thought system are used as a basis for denying rationality and therefore philosophy to the African. But as so far discussed, such

a denial is founded on a misconception of rationality and a begging of the question of what rationality is.

But the insistence that the rational life requires thoroughgoing theoretical articulation (as articulated above) is what leads to such conclusions as observed in the conventional conception of the African mentality (or the African thought systems). These conclusions lead to even more radical conclusions that either the contention that man (in the generic sense) is not in general a rational being (bearing in mind the nature of the African thought system) or that Africans are not men in the first place. These are absurd conclusions in the light of what is so far common sense knowledge of the rationality of man in general (including Africans). This reality renders such rigorous demands on the question of rationality not consistently tenable. It is in this light that Solomon (1999: 74) says that:

> Once we have given up the self-reflective overlay superimposed on the good life by such philosophers as Aristotle and Socrates, who insisted absurdly that "the unexamined life is not worth living", and the equally chauvinistic and angst-ridden emphasis on "purifying" reflection and "absolute freedom", imposed on us by Jean Paul Sarte, it becomes quite evident that a rational (and possibly happy) life may be readily available to those who do not display any predilection or talent for philosophy or reflection whatsoever. Indeed on the other side of the coin, we should remember that Dostoevsky, Kierkegaard, Camus and Miguel de Unamuno, as well as a number of iconoclastic ancient Greek and Asian philosophers, insisted that rationality means anxiety and suffering. Nietzsche remarked (in his *Gay Science*) that reflective consciousness becomes philosophically interesting only when we

> realize how dispensable it is, and much of Nietzsche's philosophy is an apologia for the more "instinctual" and the less reflective aspects of creative life.

It can be appreciated from the preceding that philosophers sometimes insist that rationality is essentially bound up with reflection, with thinking with "second-order" evaluations (preferences regarding our various desires, acceptance concerning our beliefs). However, it is important to note that it is the behaviour itself that is rational or irrational, not the evaluation of it (which of course may in turn be rational or irrational). But in the latter case is the metalevel, discussions about methods and standards and optimum strategies. In this case, it comes out that the paradigm of scientific rationality is a faulty foundation from which to gain a general understanding of rationality. Also, is "the examined life". An excessive emphasis on language or thought or deliberations or principles may be demanding too much of rationality. Or too little, because the overemphasis on reasoning and articulate rationality can be seen as a device for restricting the philosophical discussion – and perhaps the concept of the good life too – to just those skills and personality traits typically possessed by professional philosophers. Which is a precarious position.

From the foregoing, it has been shown that rationality has been construed by some scholars in terms of intellectual capacities usually involving the use of language, or the consistency or coherence of beliefs held (theoretical rationality), or the ability through action to achieve a goal with the greatest efficiency (practical rationality – which is basically instrumental). It can also be appreciated that defining rationality or construing

it in terms of mere consistency or coherence (theoretical rationality) boils down to equating rationality with mere logic which has been a common tendency among Western scholars. However, this conception of rationality (equating rationality with logicality) is insufficient and inaccurate as it can be appreciated from the foregoing exposition.

In fact, it is against this conception of rationality that Solomon (1999: 67) cautions that to reduce rationality to reasoning, and reasoning to logic and argument, is to deprive philosophy not only of its passion but also of its substance. That to think of the free will problem, for example, as only a number of opposing theses and arguments is to miss the very human Pathos and the anxiety that give rise to the problem. Though consistency, coherence and argument in general are an important aspect of rationality, they are perceived in this study to be insufficient to define rationality.

On the other hand, construing rationality as merely the ability through action to achieve a goal with the greatest efficiency (practical rationality) also has its shortfall. This is because such a conception gives rationality an instrumental connotation that casts doubt to the consistency of such a conception with the ethical or moral implications arising therefrom and/or incidental thereto. Such a conception implies a means-end reasoning or maximization of expected utility or of subjective preference. But moral considerations are, as Siegel (1988: 129-133) says, properly thought of as moral reasons. Thus ignoring moral reasons is not only being immoral but irrational as well.

It is at this juncture that it should then be appreciated that rationality is a complex notion that entails the use of reason or evidence in such a way that such reason and evidence enhance the solution of problems, all factors considered [cf. Lauden, (1977: 123), McPeck, (1981: 12), Scriven, (1976: 5)]. Adopting this definition renders it inappropriate to conceive rationality merely as coherence and consistency (logic or theoretical rationality) or mere intelligent use of evidence for the solution of some problem (practical rationality or instrumental rationality). It rather constitutes a synthesis of the two. It is with regard to the complexity of the term and its irreducibility to mere logical or pragmatic reasoning that Solomon (1999: 67) says that rationality whether by way of reflection or of insight, has had an important relation to God, to the ultimate truth, to the way the world really is.

For Plato, for instance, rational insight was akin to erotic ecstasy, an insight into the perfect forms. In this light, adherence to reason for instance should not be taken to mean being moved solely and slavishly by devotion to reasons without a critical insight, which may occasionally dictate ignoring object-level reasons due to metareasons or higher-level reasons. To this extent, reasoning should not be confused with calculating or measuring or ignoring emotions or appealing to authority (Scriven, 1976: 5).

In this chapter, an attempt is made to highlight and argue for the import of such considerations as morality and sentiments to a more comprehensive conception of rationality. It is also an attempt to synthesize two aspects that are relevant to rationality, namely:

(i) Internal Coherence and consistency of reasoning (logical positivistic and scientistic or the theoretical conception)

(ii) Intelligent use of evidence or reason(s) for the solution of some problem (practical rationality – which is basically instrumental and implies some extent of relativism)

This means that rationality is to be accurately construed as having two aspects, the internal (coherence and consistency) and the external (practical and holistic considerations) as has already been shown this far. Neither of these two aspects on its own nor a lack of either of them is sufficient to universally and invariably define rationality. The significance of this postulation is that the western positivistic conception of rationality in terms of an absolutely impersonal objectivity guaranteed by logic flouts it. The result is a conception of rationality that cannot be invariably reconciled with ontological reality and humanity. This is illustrated in even greater detail in the subsequent chapters.

3.0.0 CHAPTER THREE

TOWARDS THE ARTICULATION OF A WIDER AND MORE COMPREHENSIVE CONCEPTION OF RATIONALITY

This chapter constitutes a reflection on the cognitive foundation and the ontological significance of the scientistic conception of rationality in terms of logic and the competing conception of rationality which transcends the model of logic. The chapter aims at ultimately postulating what, in the light of the arguments marshaled and the illustrations given, presents itself as the more consistently tenable conception of rationality. This is an attempt to harmonize cognitive fiat and ontological dictates. It is also an attempt to expose the limitations of the conception of rationality in mere logical terms and highlight the comprehensiveness attainable by a conception that transcends logic as a model for rationality.

From the discussion in the preceding chapter (chapter two), it is appreciated and shown that rationality is a honorific term, it connotes endorsement and among other qualities, it connotes rightness, orderliness, appropriateness and praiseworthiness. However, notwithstanding the fact that rationality may be conceptualized differently, the conceptualization (whichever) is usually informed by a positive connotation, hence honorific.

The conceptualization of rationality can be divided into two categories, the criterial and the noncriterial. The criterial conception is essentially scientistic and it has its foundation in positivism but can as well be traced back to the sentiments of the great philosophers, Plato and Aristotle, in their insistence on the entire control of the passionate nature of man by reason. For example, Plato prescribes in his ideal state in *the Republic* that the rational element of the soul should control, regulate or moderate the appetitive element (the natural drives). The criterial approach culminates into a formal axiomatic scheme where rationality is construed ultimately as a means only, as fundamentally instrumental [Lauden (1977: 123), Putnam (1985: 103- 126)].

The implication of the criterial conception, which manifests itself in formal axiomatic terms and spells instrumentalism implies that ultimate ends are neither rational nor irrational. However, the caution in this regard is that excluding the ultimate goals of life from the realm of rationality by putting such goals beyond criticism, evaluation and appraisal is precarious. This caution can be appreciated in the light of Hume's assertion in his work, *A Treatise of Human Nature* (1972: iii) that "it is not contrary to reason to prefer the destruction of the whole world to the scratching of my finger". Linear reasoning is thus fairly descriptive of the criterial conception of rationality, a conception that is predominantly of western origin and is reflected in the renaissance and modernism [Putnam, 1985: 150-173, 174-200]. This conception connotes mere reasoning and instrumentalism. This is a conception that is defined by logic. The conception assumes certainty and completeness with regard to the conception and definition of concepts and their application (i.e., stereotyped procedures and fixed concepts). This assumption

provides a basis for the predictability that arises therefrom disregarding the fact of the open texture nature of language, the relative incompleteness and unpredictability of reality and the fact that events may be as dissimilarly circumstanced as they may be similarly circumstanced.

On the other hand, the non-criterial conception of rationality (which is the conception of rationality that is postulated in this thesis) indicates that rationality is more complex and interesting than mere reasoning and instrumentalism [cf. Mcpeck (1981: 12), cf. Scriven (1976: 5), cf. Solomon (1999: 67)]. Here, equal attention is given to ends and means. Harmony is sort between ends and means. This conception is rich and textured about experience. The conception upholds the perspicacity and vision to see complexity as order, to find meaning in disorder and confusion and to distinguish as well as to simplify [cf. Solomon, 1999: 67].

It is in this regard that Nozick (1993: xiii-xiv) indicates that rationality transcends mere criticism and argumentation, that it includes perspicacity, caring and vision. In this regard, care is perceived to be the basis of reasons. This conception of rationality implies that rationality transcends mere reasoning and by extension, logic. It is a conception that includes in the edifice of rationality a modicum of morality and passion (emotion or sentiments). The basis of such considerations (as emotion and morality) is the sustenance (in the conception of rationality) of the human element, an appreciation of the complexity, relative unpredictability and primordial openness of the universe tied to and explained by the finitude and fallibility of man.

This study construes the term rationality in the wider conception, the non-criterial conception as explained above. The justification for the postulation of this non-criterial conception is appreciable in the light of the first chapter where the background to the study is exposed. The justification is also echoed in the second chapter following the limitations exposed about the criterial conception epitomized in the formalism upheld and absolute objectivity celebrated by science. The justification for upholding such a non-criterial conception of rationality is further intended to be exposed in the next chapter (on logic) by way of a show of the ontological limitations of the ideals and assumptions of logic (i.e., absolute completeness of system, absolute objectivity and absolute predictability). Important to note however is that the criterial conception based on a scientistic, formal positivistic approach (in terms of logic and logical objectivity) is construed in the study to be invalid and reductionist. It is also construed to constitute a narrower conception of the concept (rationality).

From the foregoing, it has been shown that rationality cannot be exhaustively and comprehensively defined in terms of an absolute exclusion of context, the body (sensual experience), and the world of emotions, beliefs and values. However, the scientistic conception of rationality as logicality as has been exposed in the preceding chapter implies a conception of rationality that is founded on an exclusion of such relevant considerations. This is because, as it is going to be exposed and discussed in the next chapter, logic is informed by stereotyped procedures and fixed concepts to the extent that

it fails to take into cognisance the question of context. The objectivity of logic also renders it absolutely innocent of emotion and sensual experience.

On the question of beliefs and values, logic assumes the truth of propositions. In this regard, beliefs and values as such are rendered irrelevant. In this light, logic is only relevant to the question of beliefs and values to the extent of the inferential relations of the propositions that constitute such beliefs and values. This leads to a sort of limitation, certainty and rigidity which cannot be reconciled with the relative flux that characterizes real life experience and the demand therefore for a modicum of flexibility to capture such flux. The demand for flexibility holds on grounds of the relative finitude of human knowledge and the relative inability to certainly tell beforehand the manner and nature of the occurrence of phenomena in the universe.

Given that (as it is discussed in greater detail and illustrated in the next chapter) logic is characterized by stereotyped procedures and fixed concepts and applications, and science proceeds by logic, science assumes the uniformity of nature and the ability to invariably explain causal relations. Thus, it is accurate enough (from this theoretical point of view i.e., given such assumptions) to define scientific rationality in terms of logicality (systematization and systematicity). However, it is precarious to extend such a conception of rationality in the realm of science to rationality in general. This is because (as has been alluded before) the conception of rationality as such cannot be harmonized with and account for the relative unpredictability and flux that characterizes the universe and especially human social life. For instance, it could be argued, contrary to the

assumption of science (that every effect has a cause and so the task of science is to establish the relevant causal relations of effects and their causes), that the apparent causes and their effects (as perceived in science) may not necessarily always be instances of causes and their effects as such but rather instances of a pre-established harmony of two or more modes without any causal relation at all. That the apparent causal relations of causes and their effects may just be instances of a mere co-occurrence of events by chance or some agent whose actions were not or could not or cannot be observed or comprehended by man. Such a co-occurrence could be explained in terms of the actions of some deity, an arbitrary way of the goings on in the universe, a product of some spontaneous dialectical process or mere chance.

Such an approach to the explanation of reality, contrary to the scientistic conception of the universe, accommodates and could be employed to account for such phenomena as miracles, phenomena which are (in the eyes of science) contrary to "the natural order of things". But "the natural order of things" as construed in science rests on the assumption of the principle that all effects or events have particular causes or have a necessary link to prior events and that there is uniformity in the universe. However, the alternative and competing account of the goings on in the universe as suggested above rebuts the scientistic account and the correlative assumptions.

As seen in the alternative explanation of "the natural order of things" on the basis of a preestablished harmony or spontaneous dialectical process or mere chance or just arbitrary occurrence, there may not be any necessary causal relationship between causes

and events as such (as assumed by the scientistic account). The occurrence of events may just be a question of chance or God's earlier design or even his constant intervention in the goings on in the universe. Even if one denied the 'God or deity account', it could still be validly argued that the apparent causal relations may merely be actually instances of an arbitrary co-occurrence of things or a co-occurrence that is based on mere chance. Either way, the scientistic assumptions (the uniformity of nature and the principle of causality) are validly rebutted or rebuttable and the scientistic account of the universe is therefore shown to be questionable.

The assumptions of science, following logical consistency, that events are predictable and that there is uniformity in nature, and the extension of such a theoretical construal to social life (especially in the legal realm) is thus shown to be highly questionable. The alternative accounts are however shown to be the more comprehensive and plausible accounts of the universe. This is because, as can be appreciated from the preceding argument, the accounts capture and can account for reality to extents that the scientistic account cannot. In mind here are such phenomena as miracles and the general occurrence of the unpredicted which, in this regard, constitute the relative unpredictability observed in reality.

The gray areas of the law as manifested in 'hard cases' is an outstanding illustration of the relative unpredictability of reality and the relative finitude of human prediction, a phenomenon that limits the appropriateness of the logical assumptions of completeness and invariable predictability. The relative flux that escapes the scientistic framework and

dictates such responses as the paradigm shifts of Kuhn or constant conjectures and refutations in Popper's account of scientific rationality shows that the scientistic conception of the universe assumes predictability, an assumption which is falsified by the reality (the occurrence of the unpredicted and unpredictable). This state of affairs implies a narrower conception of the workings of the universe on the part of the scientistic account.

Thus far, it can be appreciated that the scientistic account of the universe is founded on a narrower conception of the workings of the universe. This implies that either the scientistic conception of rationality is a narrower conception of rationality or that it is not rational at all or that it is arational. Whichever the case, the scientistic account, whether of the workings of the universe or of rationality, is shown to constitute either a narrower conception of rationality or a negation of rationality or an arational scheme. Thus, this study attempts to postulate a conception of rationality that captures the apparent disorder and confusion (the flux) observed in the universe and especially in human social life and situate logic in its rightful place in the edifice of rationality (i.e., expose the appropriate role of logic in the more comprehensive conception and definition of rationality). It is such a conception of rationality that can cogently justify and account for paradigm shifts in Kuhn's conception of scientific rationality, the constant conjectures and refutations as postulated by Popper to explain progress in science, among other attempts to expose scientific rationality (as discussed in the preceding chapter). It is also such a wider and more comprehensive conception of rationality that can convincingly accommodate and

explain the relative variability, uncertainty and unpredictability in especially the human social realm.

Scientific rationality, construed as exemplifying rationality in general (as implied in the western conception of rationality as logicality), contradicts itself. It exhibits a logical inconsistency in itself. In other words, if logical consistency and coherence were to be used as the criterion for rationality as implied in the scientistic conceptions of rationality (as demonstrated in relativism or 'anarchism' illustrated in Kuhn's, Popper's, Feyeraband's and Foucalt's accounts of scientific rationality), then such accounts of rationality would have to fail as instances of rationality. In fact, they would pass as instances of irrationality. In that context, scientific rationality sets a standard that it fails to meet. This is because scientific rationality or any scientistic conception of rationality proceeding by logic would have to pass as irrational given the logical inconsistency seen in for instance paradigm shifts, constant conjectures and refutations and so on as dictated by reality. In this regard, scientific rationality is irrational following its own criteria of rationality and rational when the criteria of its own instituting is expanded.

The point that is highlighted to this extent is that logical consistency and coherence is only sufficient to define the rationality of a system within itself. It is in this regard that logic is argued in this thesis to be relevant to rationality only to the extent of internal consistency and coherence. However, it is further argued in this thesis that internal consistency and coherence accounts only for the internal standard of rationality. The external standard of rationality is argued to call for considerations outside of the question

of internal consistency and coherence, the jurisdiction of logic. Such considerations as morality or ethics (which in this regard are construed to capture socio-cultural, political and religious concerns) and sentiments or emotions are argued to account for the external standard of rationality. These however fall outside of the jurisdiction of logic. It is in this light that, contrary to the scientistic western thinking, logic is argued in this thesis to be insufficient to comprehensively define or determine rationality.

It is also against this background that legal positivism is argued (more elaborately in chapter five) to be founded on an insufficient and narrower conception of rationality by rigidly emphasizing logical consistency and coherence within the law without due regard to extralegal considerations (e.g. the morality or ethical considerations that are not envisioned and envisaged in the law, and emotions or sentiments). In this regard, legal positivism is further argued to be founded therefore on a theoretical basis that cannot invariably guarantee moral or natural justice but can only ensure formal or procedural justice. It is in the preceding light therefore that the apparent irrationality of the law (echoed in such phrases as "the law is an Ass", "good lawyers, bad Christians", "if you conflate law and justice, you will be jailed and you will have nowhere to seek redress", "if you don't understand the meaning of justice, you will soon have ample time to ponder over its meaning in jail") can be explained given a positivistic conception of the law.

This study attempts to propound a conception of rationality that can explain and capture the relative unpredictability of the universe to an extent that even the 'irrational' accounts of scientific rationality and the occasional deviation from the rigid expectations of the

law as for instance illustrated in hard cases in the legal realm (discussed in chapter five) can be appreciated and accepted as reasonable and even rational. This is in the context of a wider conception of rationality. A conception of rationality that is humble enough to acknowledge the finitude of human knowledge and the fallibility of man. This finitude and fallibility of man provides a basis for validly questioning the assumptions of completeness, certainty and therefore absolute predictability that logic (and by extension) or any scientistic conception of rationality rests on (as is the case in legal positivism for example).

The study attempts to propound a conception of rationality which is based on an attempt to appreciate but not impose meaning and 'order' in the apparent disorder and confusion in the universe (the relative flux and unpredictability). This is a conception of rationality that does not begin from the point of view of a preconceived mode of systematicity, order and predictability, and proceeds to explain reality within the confines of such preconceived 'systematicity' and 'orderliness'. This is especially when such 'systematicity' and 'orderliness' is conceived within the context of the finitude of human knowledge and the fallibility of man (and not the omniscience and perfection of God in the Christian faith for instance).

The sort of rationality that this thesis attempts to derive and construes to be much wider and more comprehensive than the scientistic is one by which one can reasonably and cogently explain both the predicted and the unpredicted. This is rationality derived from an identification, acknowledgement and appreciation of the finitude of human knowledge

and the fallibility of man, relative to ontological reality. Such a basis dictates conformity to the 'order' and 'systematicity' as determined by the unfolding or revelation of the universe and not the rationalism of man following logic. This means that the overriding consideration is the 'causal' relations exposed and imposed by the universe and not exposed and imposed on the universe by man.

This is a conception of rationality that construes and appreciates empirical reality as the unlimited modes of the manifestation of the limited forms that may be beyond the complete grasp of the human intellect. This renders the assumption of absolute predictability (following the conjuring of concepts assumed to be complete and therefore fixed) unreasonable and irreconcilable with the nature of things.

The conception of rationality that is propounded in this thesis can therefore accommodate as reasonable and provide a cogent theoretical basis to account for such phenomena as miracles and mysteries that cannot be explained within the theoretical confines of scientific rationality. It is in this conception of rationality that the apparent illogicality (in the eyes of legal positivism) seen in the settlement of hard cases (as discussed in greater detail in Chapter five) can be appreciated. It is also in this regard that legal positivism is argued to be founded on a narrower conception of rationality following the logicalistic disposition of the theoretical foundation of legal positivism (discussed in chapter five). This is because (as earlier alluded) rationality is understood and argued in this thesis to transcend logic because logic is restrictive to the extent that it fails to accommodate the primordial openness and apparently infinite unfolding of the universe. This contention

can be appreciated in the light of the gist of 'hard cases', how they can be resolved and the basis for such approach to their resolution (as discussed in chapter five).

The failure of logic to sufficiently account for rationality is also seen in this regard to be explained in terms of its innocence or ignorance (also as earlier alluded) to considerations such as morality, specificity and uniqueness of context and circumstances, emotions or sentiments and even sensual experience. These are considerations which are argued in this thesis to constitute the building blocks of the edifice of rationality. However, they are considerations that are beyond the competence and authority of logic.

It is in the light of the preceding that it is argued that therefore any scientistic conception of rationality basing on the ideals of logic as indicated earlier constitutes a narrower conception of rationality and accounts (by extension) for the theoretical insufficiency of legal positivism which further accounts for the failure of legal positivism to guarantee moral justice or natural justice. This is because moral or natural justice can only be achieved with the cognisence of such considerations as alluded above. However, legal positivism, seeking to attain the absolute objectivity and impersonality of logic (symbolized by blindness to personal sentiments), is argued to be based on a theoretical construct that excludes the imperative considerations for rationality.

Thus far, following the discussion in chapter two and this chapter (three), the two conceptions of rationality (the criterial and the non-criterial) have been exposed. The relevant theoretical assumptions have also been discerned and exposed with greater

emphasis on the influence of science particularly in the criterial conception. A juxtaposition of the two conceptions has so far also been undertaken. However, a more comprehensive determination of the merits of the two conceptions can only be realized in the light of an articulate exposition of logic as an art and a science. This is by virtue of the relevance of logic in especially the criterial scientistic conception of rationality. This provides ground for the next chapter (on logic). The chapter is fundamentally an attempt to provide an exposition of a historical evolution of logic as an activity and a discipline (i.e., as an art and a science). In this process the central tenets, the theoretical assumptions and their practical implications in the light of ontological reality is intended to be revealed.

4.0.0 CHAPTER FOUR

LOGIC: The Central Tenets, Assumptions and the Goal of Systematicity.

Just as it is the case with the second chapter (on rationality), the task and objective of this chapter is to present a comprehensive exposition and explication of the essence or the gist of logic in terms of the relevant ideals that it focuses on, the assumptions made and the consistency thereof in the light of reality. To this extent, what constitute the central tenets of logic are exposed with a deliberate intention of providing a basis for subsequently establishing the extent to which logic is therefore relevant to the edifice of rationality.

If logic is conceived to refer to the activity of drawing inferences (conclusions) from a body of information, then there cannot be any doubt that human beings have been using logic for as long as they have been thinking. Alternatively, if logic is to be taken to refer to the analysis of concepts involved in making inferences and the identification of standards and patterns of correct inference, then logic would be traced only back to the days of Aristotle (350yrs B.C. or so) with some parallel development in early Hindu writings [Ayer (1973: 184-204), Kant (1992: 251-253), Kant (1965: 58, 94-100), Russell (1959: 1-120)]. Socrates is known to have had a strict insistence on definitions, and Plato had a particular focus on constant refining of every concept. These were apparently early indications of the development or evolution of logic [Kneale, 1962: 3-19].

Construed as the activity of drawing inferences or conclusions from a body of information, logic has ever been used by man. However, if conceived as the analysis of concepts involved in making inferences and the identification of standards and patterns of correct inference, logic began with Aristotle when he wrote the "*Organon*". There are however two lines of emphasis in the study of logic. These are formal logic and informal logic. Formal logic focuses on the abstract relationships of logical concepts and the systematization of the concepts. Informal logic on the other hand focuses on the application of logical concepts to the analysis of everyday reasoning and problem solving.

However, the gist of logic rests in the analysis of concepts involved in making inferences and the identification of standards and patterns of correct inference. Implication is therefore the outstanding feature that defines the concern of logic. In this regard, logic can accurately be defined as the theory of consequence relations of valid inference [Quine (1965: 3), Quine (1974: 1-5), Goble (2001: 1-8)]. Thus, logic passes as a tool for testing the accuracy of inference. However, it is in the conception of this study that it needs to be emphasized that logic is to be taken as a tool for testing the accuracy of inference and not reasoning as such especially in the light of practical life. This is because in this context and sense, reasoning is construed to constitute a much wider and complex notion that transcends the realm of mere inference making, a notion that includes moral and emotional considerations over and above mere constrained inference. The term 'logicality' is however used in this study as a coinage to connote the tendency towards the provisions and expectations of logic (i.e., extent of adherence to logic).

It is notable that the first great distinction of Aristotle is that with the least borrowing or building on the ideas of his predecessors, almost entirely by his own hard thinking, he created a new science – Logic. Disciplined and accurate thinking (reasoning and thought about thought) had not been deliberately developed in Greece (a purported cradle of intellectual activities) till the intellectual inventions by Aristotle provided a ready method for the test and correction of reasoning. Aristotle's *Organon* of logic translated by Boethius (470-525AD) was the mould of medieval thought in respect of reasoning and subtlety that was the basis for the terminology of modern science and maturity of reasoning [Kant (1992: 257-264), Lear (1980: i)]. Logic has thus historically been perceived to be an appropriate tool for enhancing efficiency and accuracy in reasoning.

At around the end of the nineteenth century, there was a growing interest in the search of a fundamental connection between logical and mathematical reasoning. In this trend, there was an emphasis on symbolic representation. All these studies were done in the interest and search for a connection between logical and mathematical reasoning. Here, there was an emphasis on symbolic representation of propositions and linguistic expressions [Russell (1994: 367), Russell (1937: 15), Russell (1919: 169), Russell (1959: 1-120), Ayer (1973: 174-204)].

From the preceding, there developed two divergent lines of emphasis on the study of logic namely formal logic (or symbolic logic) and informal logic (or critical thinking). In formal (or symbolic) logic, emphasis is placed on the precise symbolic representation of

logical concepts, the study of the abstract relationships between these concepts, and the systematization of these relationships. Informal logic (or critical thinking) focuses on the application of logical concepts to the analysis of everyday reasoning and problem solving. Though elements of symbolic logic would be involved in informal logic, this is only to the extent that symbolic logic contributes to this practical objective (i.e., the application of logical concepts to the analysis of everyday reasoning and problem solving) [Chadwick (1980: 108,131-166), Kant (1965: 58-100), Kant (1992: 251-264].

However, not one of these directions of emphasis really concern themselves much with how people actually think or what might be called a psychology of thought. The starting point of informal logic is the perception that people don't actually always reason as accurately as they ought to, and so it focuses on how to address the matter. Formal logic on the other hand begins with the perception of what constitutes good reasoning at a rudimentary level, and goes on from there to investigate good reasoning at higher and higher levels of sophistication. It is in the light of the assumptions and perceptions of these two trends that logic is seen in this study to be of theoretical and practical significance to reasoning in law and the whole edifice of rationality. This is because of the interest developed in legal reasoning on the basis of the practical importance of legal conclusions or judgments.

Logic as construed in this study refers to the analysis of concepts involved in making inferences and the identification of standards and patterns of correct inference [Quine, 1965: 3]. The gist of logic is thus construed to lie in implication [Quine, 1974: 1-5]. To

this extent, logic is construed and defined in this thesis as the theory of consequence relations of valid inference [Goble, 2001: 1-8]. It is imperative to note at this juncture however that it was Aristotle who was the first person to deliberately and carefully study the various ways in which reasoning may proceed and how reasoning may go wrong. This he did in his work the *organon* that, to him, was a tool to test the accuracy of inference.

Logic is thus the art and method of 'correct thinking'. It is a fundamental approach that defines every science, discipline and art, music as well harbors it [Durant (1973: 58-59), Chadwick (1980: 108-111,163)]. Logic is a science to the extent that the process of 'correct thinking' can be reduced to rules like physics and geometry, and brought to any normal mind. Logic brings to thought that unconscious and immediate accuracy which guides the fingers of the pianist over his instrument to effortless harmonies, and it is on the basis of this understanding and extent that logic is as well understood to pass as an art.

The beginnings of logic can be traced from the subtle discussions between Parmenides and other Greek philosophers. The negation of movement and of change are the clearest evidences founded on a rigid use of the principle of non-contradiction which led to the necessity to clarify concepts and effectuating opportune distinctions. The method of discussion (thesis, objection, rebuttal) explains that logic in other eras had also been called dialectics [Sanguineti, (1988: 33), Barnes (1969)].

The polemical atmosphere continued in the sophist movement culminating in Socrates, who delineated the definition of the concept as the key element of science against the sophist banality (common place) of knowledge. Plato developed this Socratic line of thought (definition of the Forms and rigorous conceptual classification). However, for Plato, the real order was the order of the ideas, which according to him existed as subsistent realities (the suprasensible world).

Aristotle however marks the true birth of logic in the formal sense. He is the great builder of classical logic in his *Organon* (instrument). Later, other aspects of formal logic such as the hypothetical syllogism and the logic of propositions were developed by the school of megara and the stoics. Porphyries and Boethius (neoplatonic philosophers) transmitted to the Middle Ages the Aristotelian work on logic. In the Middle Ages, great importance was given to the teaching of logic as a preparation for philosophical and scientific knowledge. After the renaissance, the experimental tendency of the new knowledge led to distrust in Aristotelian logic, which was understood in a purely deductive sense and judged sterile for scientific progress [Senguinety, (1988:33), Kneale, (1962:3-742), Kant (1965: 630-666), Kant (1992: 257-264)]. More importance was given to mathematical methodology and to induction. Francis Bacon and J.S Mill are notable in this regard. Preceding scholars in symbolic logic were such individuals as Arnauld and Nicole (logic of Port-Royal), Ramus, and Leibniz [Sanguinety, 1988: 33].

In the nineteenth century, great interest in formal logic of a deductive kind and for axiomatic constructions grew from the development of geometry and algebra. In this era

are George Boole, De Morgan, Pierce, Schroder [Senguinety, 1988: 33]. At the beginning of the twentieth century, mathematical logic became more autonomous, while classical axiomatic systems were elaborated and even considered to an extent as the foundations of mathematics. The outstanding logicians of this period are B. Russell, Gottlied Frege and Peano. The following trend consisted in some technical studies on the logical properties on the axiomatic systems (for instance the demonstration of non-contradiction, the completeness and independence of axioms), studies that, implying a logical reflection on logical calculus, corresponded to what was called metalogic. Godel with his incompleteness theorem is an illustration in this regard [Godel (1931), Lear (1980: 15-33)].

Tarski, Carnap and Quine are some of the figures associated with the development of meta-logic. This trend concentrates on issues of logical syntax (the reciprocal report between the signs and expressions of the calculus, such as, for example, logical deduction) and semantic questions, the meaning of symbols (i.e., their relation to a word of objects – external to calculus – where the symbols are " interpreted"). Here, the formal expressions acquire the value of material truth or falsity [Senguinety, (1988:33), Kneale, (1962:3-742)]. The preceding account suffices for a brief history of logic as a discipline.

Many of the discoveries of the laws of thought and speech are credited to the sophists, the professional teachers of fifth-century Athens and the other cities of the Greeks. But despite adding their contribution to the sum of human knowledge, the sophists sometimes

used their new knowledge unscrupulously for the sake of private advantage and profit. Logic and language became potent tools in the manipulation of men and affairs, and they employed them to trick and deceive as well as to educate and guide.

Sophistry therefore made it apparent that knowledge of the laws of thought or of speech does not necessarily lead to truth in speaking or sincerity in argument. The very term sophist, originally meaning a man of wisdom, came to signify a man who deliberately distorts and perverts the use of reason and speech. However, logic is oriented toward the same goal as the intellect itself – the knowledge of truth. Logic is concerned with the finding out of the laws the intellect must obey to ensure exactitude in thinking. Logic also studies the causes of error as help in detecting and avoiding them.

As earlier alluded, Socrates is known to have had a strict insistence on definitions, and Plato had a particular focus on constant refining of every concept. These were apparently early indications of the development and evolution of the science of logic. Definition is an important and essential aspect of the clarity, specificity and precision that logic strives for. The illustration of this point is appreciated in the following quotation:

> How many a debate would have been deflated into a paragraph if the disputants had dared to define their terms! This is the alpha and omega of logic, the heart and soul of it, that every important term in serious discourse shall be subjected to strictest scrutiny and definition. It is

> difficult, and ruthlessly tests the mind; but once done it is half of any task [Durant, 1973:59].

The concept of "universals" is another significant aspect of the science of logic. The metaphysics of Plato and Aristotle with regard to "universals" are particularly interesting exemplifications of a fundamental concern of logic. In Aristotle's metaphysics, a universal is perceived to refer to a noun, any name capable of invariant application to the members of a class. In this case, animal, man, book, tree, are universals. However, these universals are subjective notions, not tangibly objective realities, they are names, not things. To explain further, all that exists outside people is a world of individual and specific objects, not of generic and universal things. So, men, trees, and animals exist though man in-general, or the universal man, does not exist except in thought; as it may be said, it is a handy mental abstraction, not an external presence or reality. The same goes for the case of tree, animal and so on [cf. Aristotle (1924), Aristotle (1958), Aristotle (1949), Plato (1987)].

In Plato's metaphysics however, universals are perceived to have objective existence in forms (in the suprasensible world). It is in Plato's metaphysics that the universal is understood to be incomparably more lasting and important and substantial than the individual. The individual is thus seen to be wavelet in a ceaseless surf such that men come and go, but man goes on forever.

There was, in the Socratic-Platonic demand for definitions, a tendency a way from things and facts to theories and ideas, from particulars to generalities. At last Plato became so devoted to generalities that they began to determine his particulars, so devoted to ideas that they began to define or select his facts. Aristotle however ultimately preaches a return to things and reality. He had a lusty preference for the concrete particular, for the flesh and blood individual. But Plato so loved the general and universal that in the *Republic* he 'destroyed' the individual to make a perfect state. Yet, as is the usual humour of history, the young warrior takes over many of the qualities of the older master whom he assails. Aristotle too remains a lover of abstractions and generalities. There is a heavy trace of this in the most characteristic and original of Aristotle's contributions to philosophy – the doctrine of the syllogism.

Aristotle discovered and formulated every canon of theoretical consistency, and every artifice of dialectical debate, with an industry and acuteness, which cannot be too highly extolled. His labours in this direction have perhaps contributed more than any other single writer to the intellectual stimulation of after ages. This contention is founded and can be appreciated on the basis of Aristotle's work, the *Organon*. The seriousness of Aristotle's contribution to the intellectual world especially in the realm of logic is exemplified by Kant's contention that Aristotle wrote the last word on logic, though Kant's contention was later falsified by developments in logic by Russell and Whitehead and also Frege (in their work in symbolic and generally mathematical logic) [Frege (1983: 169), Russell (1919: 169), Russell (1937: 15), Frege (1893: xv), Frege (1879: vi)].

The word logic derives from the Greek noun *Logike* which takes its origin from *logos* meaning word, speech, or reason. Over time, beginning from ancient Greeks, logic has come to mean the science of reasoning. The term was first used in the sense of logic proper by Alexander of Aphrodiasis (200 A.D.). Aristotle called the science Analytics because it deals primarily with the analysis of arguments.

Logic is the science that directs reason and the art, which enables one to proceed in his/her reasoning with order, ease and correctness. Whenever one turns his attention upon his reasoning and endeavour to examine his argument to see if it is correct or false, he is using logic. The principles that guide in discourse are the principles of logic, the principles of correct reasoning. The layman ordinarily is not aware of such principles explicitly and precisely. When reflection is done on reasoning precisely in the light of the principles of correct reasoning, the science of logic is said to be employed. Logic is therefore called a science because it studies the principles directive of reason [Quine, 1965: 3]. Such knowledge is called scientific as opposed to mere opinion. As Aristotle observes in the second chapter of *Posterior Analytics* book 1,

> We suppose ourselves to possess unqualified scientific knowledge of a thing as opposed to knowing it in an accidental way in which the sophist knows, when we think we know the cause on which the fact depends, as the cause of the fact and no other, and further, that the fact could not be otherwise than it is [Aristotle, 1971: 71b, 9-12].

It is a popular belief that reasoning is supposed (or presumed) correct when the reasoner possesses certain knowledge of the principles that make reasoning correct. In this case, the evaluation is not merely a matter of hearsay or probabilities, but rather scientific knowledge of the principles of reasoning.

As opposed to being a practical science, logic is a speculative science due to the fact that it is concerned with the principles of right reasoning for the sake of truth itself rather than producing something. It is in this regard that Dougherty (1956: 13) quotes St. Thomas Aquinas thus:

> ...the subjects with which logic is concerned are not studied that they may be known for themselves but as certain means to the knowledge of other sciences .... In this sense logic is not so much a science as an instrument of science.

Dougherty emphasizes that logic serves as a tool, so to speak, or instrument in guiding reasoning, checking conclusions and evaluating inference in the light of its laws. Its principle aim as a science is truth and its service to man. As a science, it does not lie in the practical order of making something. Its contribution as a science is right reasoning in the speculative order of the sciences.

Logic is also considered an art. The logical art is thus employed when one syllogizes, by the public speaker who formulates convincing arguments, by the lawyer when he draws up his brief and so on. Whereas logic considered as a science is not in the practical order,

logic as an art is in the practical order of producing. Logic as an art teaches how to reason, but it does not teach how to apply reason in producing things because this knowledge is proper to the various manual and mechanical arts. The science and art of logic are called acquired logic as opposed to natural logic. It is acquired by mental labour in the investigation of the correct principles of reasoning and applies these principles to the other sciences and arts [Kant (1992: 252-257), Kant (1965: 58-100)].

The logician studies the beings of the world within us. The subject matter of the logician may not be mounted or photographed. It is experienced within individuals by reflection as one considers the rational beings of the mind, the concepts that compose our propositions and the propositions that compose reasoning, the subjects and predicates of propositions, the premises and conclusions of argument [Kant, 1992: 251-264].

Apart from this primary matter of logic, there is also a secondary matter. This is the language that expresses thoughts. Concepts are usually expressed in words or terms, judgments in propositions, and reasoning in arguments. However, thought and language are not the same. Language clothes thoughts and often obscures the vital clarity and depth of thought [Quine (1971: 9-178), Wittgenstein (1996: 59-99), Wittgenstein (1980: 4.4, 4.46, 4.461)]. The search for the proper words to act as the vehicle of communication of thoughts already known is part of the mental labour of every man.

Despite the precision and clarity sometimes afforded by mathematical language, symbolic logic sacrifices a great deal in departing from the use of ordinary language. The

essence of correct thinking is not to be found in its mode of verbal expression. what thought is and how it is expressed is not in the same order.

However, logic shares its subject matter with other sciences such as psychology which also considers the acts of reason. But logic differs from the other disciplines by virtue of its object. The object of logic is the principles directive of reasoning toward the true. These principles are beings of the mind, beings that can be conceived in the mind but which cannot exist outside of it [Quine (1965: 3), Quine (1974: 1-5)].

The beings of the mind are different from the beings of nature such as "man", "horse", "tree". The beings of the mind are simply conceivable such as subject, predicate, syllogism. St. Thomas (1948) in the first and fifth chapters of his work *On Being and Essence* and in the *Summa Theologica* (1952) describes beings of the mind as beings having existence objectively in reason but to which no existence corresponds in reality. Although, there are other types of beings of the mind such as fictional beings, these are however not the concern of logic.

The concern of logic is the principles of valid inference [Quine, 1974: 1-5]. Inferences were certainly made even before the time of Aristotle. However, this does not demonstrate that logic existed even before Aristotle. This is because various activities may be performed correctly (for instance talk English, French) in the absence of the explicit formulation of the rules for those activities.

Logic is not simply valid argument. It is the reflection upon principles of validity. On these grounds, logic will arise naturally only when there exists a considerable body of inferential or argumentative material. Logical investigation therefore arises from the types of discourse or inquiry in which proof is sought or demanded. There are however two conditions of proof. These are true premises, or starting-points, and valid arguments. The two conditions are independent though. Aristotle in the *Topics* and in the *Prior Analytics* appreciates the independence of these conditions. For instance in the *Prior Analytics* he says:

> The demonstrative premise differs from the dialectical, because the demonstrative is the assumption of one of a pair of contradictory propositions (for the man who demonstrates assumes something and does not ask a question) but the dialectical premises is a question as to which of two contradictories is true. But this makes no difference to the fact that there is a syllogism in each case. Both the man who demonstrates and the man who asks a question reason assuming that some predicate belongs or does not belong to something. So that a syllogistic premise is simply the affirmation or denial of some predicate of some subject, as we have said, but it is demonstrative if it is true and accepted because deduced from basic assumptions, while a dialectical premise is for the enquirer a question as to which of two contradictories is true and for the reasoner the assumption of some plausible or generally held proposition [Aristotle, 1989: 22-24].

Demonstration begins from true premises to true conclusion with necessity, thus there is proof. In the case of dialectical argumentation the premises are not known to be true, and

there is no necessity that the conclusion be true. If there is an approach to truth through dialectic therefore, it must be more indirect. The distinction between demonstrative and dialectic argumentation can be seen in terms of sound and merely valid argumentation. A sound argument is one that is composed of true premises with a conclusion that follows from the premises out of logical necessity. On the other hand, a valid argument is merely one that has a conclusion that follows from the premises out of logical necessity but in which there is no concern for the truth of the premises that constitute it.

There are basically three types of discourse in which proof is sought and demanded. In pure mathematics, what is sought to be proved are abstract *a priori* (not founded on experience) truths, in metaphysics, what is sought to be proved are very general propositions about the structure of the world, and in everyday argument, especially political or forensic argument, what is sought are proofs of contingent propositions. Out of these three, only mathematics answers obviously to Aristotle's description of demonstrative argument.

It is probable that the notion of demonstration attracted attention first in connection with geometry. Egyptians had discovered some truths of geometry empirically (e.g. a formula for the volume of a truncated pyramid). The Greeks however replaced this empirical study by a demonstrative *a priori* science. Although some accounts credit Thales (640-546 B.C) for proving the first theorem in geometry, the systematic study of the science apparently begun in the Pythagorean School [Kneale, 1962: 3]. It is in this Pythagorean school as well that apparently there is observed the beginning of intellectualism, the

doctrine that the most important faculty of man is his intellect and that truths which can be learnt only by the use of the intellect are in some way more noble and fundamental than those learnt by observation. This doctrine gained influence despite any possible shortcomings due to the reality that the discovery of *a priori* knowledge naturally excites the admiration of an intelligent man. This doctrine is very much in line with rationalism, which essentially informs logic [Kneale (1962:3), Kant (1965: 666)].

Elementary geometry has customarily been presented as a deductive science. This involves, first, taking certain propositions of the science as true without demonstration, second, deriving all the other propositions of the science from these (the presumed true propositions), and third the derivation being made without any reliance on geometrical assertions other than those taken as primitive (i.e., it must be formal or independent of the special subject matter discussed in geometry) [Kneale 1962: 3-19].

From the point of view of this chapter, the third is the most important requirement. The elaboration of a deductive system involves consideration of the relation of logical consequence or entailment [Quine, 1974: 1-5]. Historically, geometry was the first body of knowledge to be presented in this way, and ever since Greek times it has been regard as the paradigm of deductive system building. It is in this light and context that the reflection of the kind called logical began [Kneale, 1962: 3].

In the earliest exposition therefore, there are certain aspects that are stressed. First of all, special attention is paid to general propositions, that is to say, propositions about kinds of

things. This is because the concern in geometry is not with individuals. Secondly, among universal propositions (i.e. general propositions about all of a kind), special attention is paid to those that are necessarily true. This is because geometry in this Greek context distinguishes between universal propositions that must be true from the nature of the case and those that just happen to be true, and it is supposed that the universal propositions of geometry are all of the first kind. Thirdly, among universal propositions which are necessarily true, definitions receive special (but not exclusive) attention.

However, familiarity with modern logic provides that definitions are not necessarily true propositions, they are merely records of the determination to use certain abbreviations when it is convenient to do so [Kneal, 1962: 6]. To the Greeks, however, it did not seem that definitions were mere conventions. Fourthly, there is great interest in the subsumption of specific varieties under general rules, since this seems to be the most common pattern of argument in geometry.

All these features are to be found in the logic of Aristotle, and some of them in Plato's work or earlier. Aristotle in his *metaphysica* for example, says that Archytas, a Pythagorean mathematician who influenced Plato, had views about the proper form of definitions. It is thus reasonable to suppose that one trend in Greek logic was determined to a significant extent by reflection on the problems of presenting geometry as a deductive system.

However, demonstration is not sufficient to explain the character of Greek logic. As already noted, Aristotle in the first account of syllogistic considered that his study covered also dialectical arguments. Aristotle's word 'analytics' refers to his treatises rather than to their subject matter, and 'logic' itself does not appear with its modern sense until the commentaries of Alexander of Aphrodisias.

In its earliest sense, 'dialectic' connotes the method of argument which is characteristic of metaphysics. As already noted, Aristotle thinks of a dialectical premise as one chosen by a disputant in an argument. Plato's dialogues give numerous illustrations in this regard. In the *Theaetetus*, for instance, Theaetetus presents the thesis that knowledge is perception, and from this premise Socrates draws conclusions that eventually force Theaetetus to abandon it. Generally, this procedure leads only to negative results. This is because the argument proceeds in accordance with the logical schema 'if P then Q; but not Q' therefore not P (*Modus Tollens*).

Certainties about the teaching of the historical Socrates (Socrates the man himself and not as portrayed by others such as Plato in the dialogues) are difficult to reach. However, the passages of Plato's works which because of their dramatic quality seem most reliable as evidence in this connection suggest that he was not merely a lover of philosophical conversation but one who practiced a definite technique of refuting hypotheses by showing them to entail incompatible or unwelcome consequences. For Aristotle the word 'dialectic' is a name for the science of argument from non-evident premises (i.e., premises which are not necessarily true).

From the foregoing, it is evident that the first tentative steps towards logical thinking are taken when people attempt to generalize about valid arguments and to extract from some particular valid argument a form or principle which is common to a whole class of valid arguments. This form can be naturally thought of as correctly expressed in a verbal pattern which can be detected in the argument. For example, in the *Prior Analytics*, Aristotle collected a whole class of valid arguments under the principle 'if no B is A, then no A is B'. However, arguments which are fallacious though they bear a misleading resemblance to valid arguments are called by Aristotle *sophisms*. Aristotle implies that there were men called sophists who made their living by inventing such arguments and parading them in public. There is evidence for this in Plato's dialogue *Euthydemus*.

Although it may not be very clear why people would be paid for instructing others in the art of disputation, there is evidence in Plato for the use of the method ('dialectic') for two purposes, philosophical investigation and mere amusement. His own dialogues are themselves examples of the use of the method in philosophical investigation and it is interesting to observe that the conduct of the argument often follows the pattern that is later suggested by Aristotle. In the *Republic*, however, Plato issues a warning against the use of the method of disputation, especially by the young, for mere amusement. It appears from his description that the power of argument went easily to the heads of the Athenians.

It is also possible, however that those who taught the art of disputation had two other ends in view. In the first place, they may have considered the use of argument for practical purposes. As Kneal (1962:14) writes:

> A little imagination will show that even the most preposterous of the *Euthydemus* or the *De Sophisticis Elenchis* could be used in a law court either to confute an opponent who produced a subtly fallacious argument or to confuse a jury faced with a sound one. The move would be 'you might as well say ...' suppose a lawyer to argue, 'there is evidence to show that my client is a generous man. It is well known that he is the plaintiff's neighbor. Is it likely that a generous neighbour would do what my client is accused of doing?

While it is quite likely that the earliest sophisms were invented in such practical contexts and that it was the possibility of such practical application together with its amusement value which made the art of the sophists so popular, it is also possible that some of the teachers of this art were engaged in a serious search for principles of logic and to distinguish them from verbal formulae. Hitherto, it is imperative to note that there are three questions which arise as soon as reflection on the nature of logic begins. According to Kneale (1962: 17), these are:

(i) What is it that can properly be called true or false?

(ii) What link is it that makes valid inference possible, or what is necessary connection?

(iii) What is the nature of definition and what is it that we define?

These questions echo the core concerns of logic as a discipline. With regard to the first question, two possibilities present themselves in Plato's *Theaetetus* and these possibilities characterize the history of the philosophy of logic. The possibilities are that first, the proper subject of the predicates 'true' and 'false' is a sentence or verbal pattern, and second, that the proper subject is a psychological event which occurs when the verbal pattern is formed or used by a person in overt or silent discourse. The former is in modern times, associated with the word 'sentence', the latter with the word 'judgment' [Kneale, 1962: 18].

If valid inference is regarded as the tracing of necessary connection, then it is apparent that the answer to the first question must entail the answer to the second. In other words, if it is sentences that are true or false, then necessary connections are traced between sentences when valid inference is made. If however it is thoughts, then necessary connection is found between thoughts in valid inference. The second view is however inadequate to the extent that 'necessary connection between thoughts' suggests something that always holds when one thinks, while it is clear that people do not always infer validly. Historically, the recognition of this confusion and inadequacy had led often to the rejection of the suggestion that it is judgments which may properly be called true or false [Kneale, 1962: 19]. The fist view is characteristic of conventionalists who hold that necessary connection, like linguistic expressions between which it holds, is in some sense man-made and arbitrary. Plato however does not seem to accept either of the two

doctrines and to him necessary connection holds between forms. The concept of the forms is manifest in the *Republic* where it is conceived as a character or set of characters common to a number of things (i.e., the feature in reality which corresponds to a general word).

Both in the *Republic* and in the *Sophist* there is a strong suggestion that correct thinking is following out the connections between forms as they are. The model is mathematical thinking (e.g. the proof given in the *meno* that the square on the diagonal is double the original square in area).

On the third question concerning the nature of definitions, many of Plato's dialogues take the form of a search for definitions, and according to Aristotle in the *Metaphysics* this interest in definitions is derived from Socrates' attempt to define ethical terms. For Plato, definition is concerned with the thing to which the word refers rather than with the word itself. What is defined is the form or common nature present in many particular things. This may be referred to as the 'realistic' theory of definition, and it is historically connected with the phrase, 'real definition'. Aristotle was undoubtedly influenced by it in his account of definition and in his thinking on logic in general in spite of the fact that he rejected the Platonic Theory of Forms. Because of his Platonic training, he expected to find as the ultimate object of intellect and the foundation of valid inference a system or chain of Forms whose interrelationships limit the possibilities of actual existence and determine the correctness or incorrectness of scientific thought. Furthermore, he tried always to obey the platonic injunction to look to the thing rather than to the word.

Boole and Frege, like Leibniz before them, presented logic as a system of principles which allow for valid inference in all kinds of subject-matter (i.e., as the theory of relations such as Aristotle had considered in his doctrine of syllogisms and Chrysippus on derivative patterns of inference) [cf. Goble, (2001: 1-8), Kneale, (1962: 742), Quine, (1974: 1-5),]. As Kneale (1962: 742) observes:

> ...our science is best defined as the pure theory of involution without regard to the special natures of the propositions contained in the classes between which the relation holds. This account of the science agrees, as we have seen, very closely with an epigrammatic pronouncement of Frege about the way in which the laws of logic are related to the laws of other sciences, and it may be regarded also as a very strict interpretation of Bolzano's suggestion that logic is the science of sciences. No doubt in practice logic as we define it will always be studied together with other subjects which are relevant to the organization of knowledge and in particular with those with which it has been associated by Aristotle, Chrysippus, Leibniz, Bolzano, and Frege.

The preceding shows the connection of logic with the sciences. The preceding also sheds light on the genesis of the tendency and celebration of the scientistic conception of rationality as logicality as discussed in the second chapter. This is founded on the position that since scientistic thinking (i.e., formal objective, controlled/regulated, 'rulistic'/procedural thinking) is logical, it is rational. The implication in this case is that

being logical is being rational such that logic defines rationality. Logic as so far discussed, is informed by the concept of reason, which when concretized is appreciated as the evidence or the basis upon which a proposition (which may be a belief, view or opinion) rests or that from which the other follows probably or certainly [Kant, 1965: 58].

As it is discussed in the second chapter, reason is the basis of rationality, at least in the western conception. By virtue of the tie between logic and reason, rationality has been defined in terms of logicality in this western conception. However, there are limitations to this conception to the extent that such a scientistic conception of rationality is fallacious (begs the question because the assumption is that scientistic reasoning which is based on logic is rational in the first place and so rationality in general is defined in terms of conformity to the model of scientistic reasoning). The limitation of this conception is also seen in the appreciation (as so far argued in the second chapter and in subsequent chapters) that rationality and emotionality are not diametrically, necessarily nor in principle opposed or mutually exclusive [cf. Russell (1994: 367-374), cf. Russell (1959: 1-120), cf. Kant (1965: 58, 94-100, 305-307, 666)].

The question that arises then regards the nature of the relationship between logic and rationality. As Haack (1979:238) writes,

> Kant's confidence in the universability of Aristotelian logic rested on the idea that logical principles represent 'the forms of thought', that we can't but think in accordance with them: an idea that raises a host of intriguing questions about just what logic has to do with the way we think.

The tying of logic to how people think or how they ought to think is what is referred to as psychologism. Strong psychologism is the contention that logic is descriptive of mental processes (it describes how people do or perhaps how they must think). Weak psychologism on the other hand is the contention that logic is prescriptive of mental processes (it prescribes how people should think) [Haack, 1979: 238]. The strong version of psychologism therefore underlies scientistic conceptions of rationality. This, of course, manifests itself in positivistic thinking that informs the scientistic conception of rationality. The outstanding characteristic in this regard is the presumption that logic is sufficient to define rationality.

For example, Evnine (2000: 335) in his paper *"The Universality of Logic on the Connection between Rationality and Logical Ability"*, argues for the thesis of the universality of logic, that there are certain logical abilities that any rational creature must have. He contends that opposition to the universality of logic comes from naturalized epistemologists who hold that it is a purely empirical question which logical abilities a rational creatures has. He notes that this opposition has been most forcefully advanced by Christopher Cherniack (1986) who has been referred to approvingly by epistemologists such as Alvin Goldman (1986) and Barry Stroud (1979). Cherniak's argument is that which logical abilities a creature has depends on natural facts about its psychology. That natural facts about a creature's psychology are contingent and knowable only *a posteriori*.

This implies that there are no *a priori* truths about what psychology a creature has. Chemiak's belief is that individuals or species are characterized by feasibility theories. That these theories essentially consist of feasibility orderings, orderings of inference types in terms of the ease and success with which inferences of those types are typically performed. So, different creatures may be characterized by different feasibility orderings such that it would be an entirely empirical question which feasibility theory best describes a given creature.

Evnine (2000: 335, 358) argues that any creatures meeting certain conditions (i.e., that the creature is located, has beliefs, is able to grasp theories, is able to make and understand inferences, deliberates, has concepts of truth and falsity) – plausible necessary conditions of rationality- must have certain specific logical concepts and be able to use them in certain specific ways.

The upholding of the significance of logic in the conception and definition of rationality in the positivistic realm (as is seen in the scientistic conception of rationality in the second chapter and as contended by Evnine) essentially emanates from the appreciation of the importance of systematicity in the acquisition and/or derivation of knowledge. In this regard David (1972:45-56) says that:

> The apparent thirst of the mind for unity and coherence is most persistent. The quest for (systematic) unity is of great intensity, and seems to lie at the very root... of intellectual activity of any kind. The quest of the mind for comprehensiveness is not, as some have

> suggested, pernicious, but rather is of the essence of the life of reason...The craving for a unified view of things is as real as any of man's physical cravings, and more powerful than many of them.

In this light, Rescher (1979: 29) contends that as a rational animal, man exhibits a deep need for understanding. That the facets of rational structure (which include unity, comprehensiveness and coherence) are constitutive components of systematicity through which alone understanding can be achieved. He goes on to ask the questions: "what is the legitimate grounding of the status of systematicity as a regulative ideal in cognition?" "What in short, does systematicity do for us?" For him, systematization is a point for action, and system is a functional category such that systematizing is something that has to have a purpose to it. The reasoning goes further that knowledge is organized with various ends in view – in particular the heuristic (to make it easier to learn, retain, and utilize) and the probative (to test and thereby render it better supported and more convincing).

The significance of systematization characterizes the history of western philosophy. This constitutes the belief that men do not genuinely know something unless this knowledge is actually systematic. This idea was certainly alive in classical antiquity, with the Euclidean systematization of geometry providing a paradigm for this conception. Plato in the *Theaetetus* held that a known fact must have a *logos* (rationale), Aristotle insisted in the *Posterior Analytics* that strict (scientific) knowledge of a fact about the world calls for its accounting in causal terms.

These positions instantiate the common, fundamental idea that what is genuinely known is known in terms of its systematic footing within the larger setting of a rationale-providing framework of explanatory order. As Rescher (1979: 4) says, the root idea of system is that of structure of organization, of integration into an orderly whole that functions as an "Organic" Unity. A 'system' is an order of mutual dependence. It is a whole in which every part has a definite relation of dependence upon every other and these relations show an orderly plan [Goodman (1976: 24), David (1972: 45-56), Mellone, 1950: 339]. In this regard, Rescher (1979: 4) says that the root idea of system is that of structure of organization, of integration into an orderly whole that functions as an " organic unity". Thus for Rescher (1979: 28, 121), the parameters of 'system' are coherence, consistency, uniformity and rulishness. 'System' is thus defined in terms of form rather than matter [Kant, 1992: 253]. In this light, a tendency towards the satisfaction of the qualities of 'system' (comprehensiveness or a unified view of things) is what is in this study referred to as systematicity.

Systematicity and systematization as can thus be appreciated inform logical thinking to the extent that logic holds on the basis of a presumed system. This is notable in especially valid deductive thinking in which from the already given what is not explicitly stated (what is not perspicuous) but merely implied or contained in a system is discerned or categorically stated. Even inductive thinking assumes a system to the extent that consistency, coherence and uniformity of a part with the whole is assumed and therefore provides the justification for making an assertion beyond what is actually stated or provided by the information on hand.

Since logic is architectonical (i.e., involves mental movement from proposition to proposition assuming a link between or among the propositions) it ideally and ultimately assumes and implies a system. It is in this sense that logic relates to systematicity and therefore how it (logic) has eventually been construed in western philosophy to define rationality if not construed to be imperative for rationality [cf. Evnine, 2000: 335].

As it can be appreciated thus far and in the light of the discussion on rationality in chapter two and three, rationality is often conflated, especially in the western world, with logicality. This stems from the development of science in terms of its aims and methodology. The point to be emphasized here is that because logic has provided a more reliable tool for science to achieve its objectives and science has been celebrated in this regard, logic has by extension been deemed to in fact define rationality in general. The reasoning in this case is that systematicity is necessary for any scientific account of the universe. But systematicity is founded on logic and since systematicity provides the basis for any reliable conception of rationality in science, (the argument goes that) logic is the basis of rationality in general. Along these lines, Rescher (1979:121) says that:

> This rulishness is basic to the very possibility of natural science. The aims of science – the description, explanation, prediction, and control of nature – would clearly be altogether unrealizable in a world that is sufficiently badly a systematic. A significant degree of ontological systematicity in the world is (obviously) a causal requisite for the realization of codificational systematicity in our knowledge of the world. Thus while the ontological systematicity of the world is not a

> conceptual presupposition for the success of systematizing inquiry, it is nevertheless – at least in some degree – a casual precondition for this success.

However, it should be noted that systematicity of knowledge is to be construed as a category of understanding, akin in this sense to generality, simplicity, or elegance. The immediate concern therefore is with form rather than matter [Kant (1965: 94-95), Kant (1992: 253)]. In this regard, the systematicity of knowledge bears upon the organizational development of knowledge rather than upon the substantive content of what is known and deals with cognitive structure rather than subject-matter materials. Systematicity therefore relates not to what is known but rather to how one would proceed in organizing the knowledge of the facts at issue in the items of information at one's disposal.

The scientistic conception of rationality by which rationality is conflated with logicality is however founded on the doctrine of systematicity as alluded earlier. But the very doctrine of systematicity, as can be noted, has its limitations. In this case, it is to be appreciated that the foundation of the scientistic conception of rationality characterized by systematicity (and by implication logic) is questionable. This casts doubt on the accuracy of the importance ascribed to logic in the conception of rationality in general. This is because the systematicity upon which that conception of rationality rests can be questioned to the extent that there is no rational basis for issuing in advance – prior to any furtherance of the enterprise itself – a categorical assurance that the effort to systematize one's knowledge of the world is bound to succeed.

The systematicity of factual knowledge is not something that can be guaranteed *a priori*, as having to obtain on the basis of the "general principles" of the matter. As Rescher (1979:28) says:

> The parameters of systematicity – coherence, consistency, uniformity, and the rest – represent a family of *regulative ideals* towards whose realization our cognitive endeavors do and should strive. But the drive for systematicity is the operative expression of a governing ideal, and not something whose realization can be taken for granted as already certain and settled from the very outset. There is no valid reason to assume from the very outset that systematicity is ultimately going to emerge at the constitutive level of how inquiry will ultimately picture the descriptive nature of things.

The bearing of cognitive systematicity is therefore viewed as regulative rather than descriptive in orientation, and accordingly, as lacking in substantive and ontological involvements. In this regard, Goodman (1976: 24) says that:

> Obviously enough the tongue, the spelling, the typography, the verbosity of a description reflects no parallel features in the world. Coherence is a characteristic of descriptions, not of the world: the significant question is not whether the world is coherent, but whether our account of it is. And what we call the simplicity of the world is merely the simplicity we are able to achieve in describing it.

The main concern of logic is structure and form rather than content and subject matter as such. The emphasis and upholding of structure and form as if they were a sufficient consideration of rationality is however argued to constitute a narrower conception of rationality and to explain the fundamental error of the theoretical foundation of legal positivism. This is what the next chapter seeks to prove by focusing on a really practical area, legal reasoning.

5.0.0 CHAPTER FIVE

LOGICAL FOUNDATIONS OF LEGAL REASONING IN THE LIGHT OF RATIONALITY

This chapter has as its objective, an analytic and evaluative exposition of the schools of thought on the concept of law and legal reasoning in the light of logic and rationality. Here, the main focus is on the various ways in which the concept of law has been construed particularly as it applies to civil society, the underlying assumptions and the justifications for such assumptions. The particular schools of thought in this case are the school of natural law and the school of legal positivism. It is the underlying intention in this chapter that such an exposition unearths the reasoning upon which the relevant schools of thought rest. The particular interest in this regard is ultimately the relevance of logic in the relevant assumptions and justifications, on one hand, and the implications of such relevance in the light of rationality on the other.

LEGAL POSITIVISM AND THE THEORY OF NATURAL LAW

Each of these schools of thought appears to be wholly convincing given certain assumptions. The basic difference is a conflict in intuition about the origin or source of law. In response to the question "what is law?", each of these schools answers in terms of where law comes from. Legal positivism highlights as a basis of law a human

convention. This means something decided or stipulated at a determinate time, by flesh and blood individuals, for a particular purpose, with a specific function in mind. Law is thus (in that sense) something that is not beyond human control. The law-giver is a person (s) in a position of power sufficient to impose his/her will on the community, and the rules thus put into effect might be implemented with or without consultation or consent. Thus what law is explained in terms of what has been decided and laid down as law. Whether or not the law reflects any interest or none, whether it is steeped in wisdom and justice or not, whether it is widely regarded as tyrannical or not, are irrelevant considerations at the stage of definition [Hart (1961:198-127), Raz (1996:195-210), Tebbit (2000: 10-14), Faurot (1971: 50-56, 136-194)].

For natural law theory, there is ultimately at the basis of law something beyond human control or arbitrary decision. It is binding irrespective of individual or group wishes or decisions. It thus derives from first principles or natural foundations and not mere human agreement. The value of law in this sense runs deeper than the usefulness or expedience of conventions. In this regard, laws are discovered rather than made. Human makers of positive law are therefore constrained in this regard by objective considerations that relate to the intrinsic nature of the laws. These are considerations of justice which are external to the will of legislators. If these constraints are ignored, then what the human "law-makers" make is not law at all [Tebbit (2000: 10-14), Raz (1996: 195-210), Patterson (1996: 59-71), Hart (1982: 21-40), Faurot (1971:50-56, 136-194)].

THE LAW IN ITS VARIOUS CONCEPTIONS

The notion law is associated with a diversity of subject matters. The meaning of the notion varies depending on the relevant context. The outstanding difference however rests in the way in which natural scientists use the term and the way it is used in the arts and morals or politics. Law is ordinarily thought of as a rule – a command or a prohibition – which is to be obeyed, though may be disobeyed. Although the duty or obligation created by a law is one of obedience, there would be no moral significance to discharging this duty if the law could not be violated [Hart, 1961: 123-206]. However, the laws of nature that scientists try to discover do not have this characteristic. They are inviolable. The rules of an art however may be violated unwillingly or intentionally. Grammatical errors for instance may be made both by those ignorant of the rules or by those who wish to disregard them. The "law of contradiction" (that something cannot be and not be at the same time under the same circumstances) in logic apparently is just like the rules of grammar or any other art [Adler & Gorman 1982: 962].

But there is the class of rules to which the word "law" is most commonly applied. These are rules of moral action or social conduct which, like the rules of art, are essentially violable. In his work, *The Spirit of Laws*, Montesquieu conceives laws in their most general signification to be the necessary relations that arise from the nature of things. In this sense, all beings have their laws. But he clarifies that law operates differently in the realm of physical nature and in the ream of intelligent beings like man. The latter does not conform to its laws so exactly as the physical world. The explanation for this is that,

on the one hand, particular intelligent beings are of a finite nature, and consequently liable to error, and on the other, their nature requires them to be free agents. Hence, even the laws of their own instituting, they frequently infringe.

The opposite of natural law is sometimes called "human law", "positive law", or "written law", sometimes, as with Kant, for whom the analysis of law derives from an analysis of right, the differentiation between natural and positive right is also expressed in terms of innate and acquired right, public and private right [Kant (1965), Kant (1992), Kant (1981)]. Thus for Kant, natural right rests upon the pure rational principles *a priori*, positive or statutory right is what proceeds from the will of a legislator.

The distinction between the state of nature and the state of civil society is also used by some scholars in differentiating natural from positive (or civil) law. Examples in this regard are Thomas Hobbes in his *Leviathan*, John Locke in his *Essays on the Law of Nature* and Montesquieu in *the Spirit of Laws*. Such theorists recognize that the law which governs men living in a state of nature is natural in the sense of being instinctive, or a rule of conduct which man's reason is innately competent to prescribe, whereas the civil law originates with specific acts of legislation by a political power, vested in a sovereign person, in a representative assembly, or in the whole body of the people. In this regard, Aristotle says:

> If the written law tells against our case, clearly we must appeal to the universal law, and insist on its greater equity and justice .... We must urge that the principles of equity are permanent and changeless and that

> the universal law does not change either, for it's the law of nature, whereas written laws often do change [Aristotle, 1924: 1.18.2].

Cicero (1928: Book 1) also says that:

> Law is the highest reason, implanted in Nature which commands what ought to be done and forbids the opposite. True law is right reason in agreement with nature. To curtail this law is unholy, to amend it illicit, to repeal it impossible.

In the same line of thought, John Locke says that:

> The state of nature has a law of nature to govern it, which obliges everyone and reason, which is that law, teaches all mankind, who will but consult it, that being all equal and independent, no one ought to harm another in his life, health, liberty, or possessions: for men being all the workmanship of one omnipotent and infinitely wise maker, sent into the world by his order and about his business; they are his property, whose workmanship they are, made to last during his, not another's pleasure [Locke, 1954: 111].

However, for Locke, the law of nature does not apply only to the conduct of men living in a state of nature. This law is a rule of common reason and equity, which is that measure God has set to the actions of men for their mutual security. It does not cease when men enter into civil society. In fact, according to him, men are drawn closer to this law when they enter into civil society. To him, the obligations of the law of nature have

by human laws known penalties annexed to them, to enforce their observation. In this regard, the law of nature stands as an eternal rule to all men, legislators as well as others. Therefore, Locke makes natural law the source as well as the standard of positive law (or man-made law or civil law).

Hitherto, it should be appreciated that to formulate a generalized formal definition of "law" is difficult. This notwithstanding, the question "what is law?" has very recurrently concerned legal philosophers and philosophically minded lawyers. Much of the difficulty in postulating such a generalized formal definition of "law" (at least in the context, not of natural sciences, but in the human moral and political context) is the fact that the unified and simply stated question about the nature of law obscures the reality that one or more of the several quite discreet questions are being asked. According to Harvey (1975: 209), these questions included:

(1) What is the appropriate subject matter of the study of law?

(2) What is the criterion or criteria for the validity of law?

(3) What is the nature of justice and is its content subject to human knowledge?

(4) What is the status of human rules sanctioned by public force which seemingly conflict with the standards of justice? And how is this conflict properly resolved?

(5) What is the source and limit of the obligation of obedience to law?

(6) To what source does one appropriately look for the creative, initiating impulses for the development of law?

Against the background of the questions raised above, any attempt to define the term law (particularly when used in reference to a civil society) requires that answers to the questions be clear first and foremost. Also important to emphasize is that whichever answer adopted with regard to the relevant questions requires and implies that one subscribes clearly to either of the two fundamental schools of thought in legal philosophy. These schools are the school of natural law and legal positivism. The central tenets of the school of natural law are echoed in the above quotations from Aristotle (1924: 1.18.2), Cicero (1928: Book 1) and Locke (1954: 111). Locke's conception of natural law is however further evident in his contention that:

> ...It cannot be said that some men are born free that they are not in the least subject to this law, for this is not a private or positive law created according to circumstances and for an immediate convenience; rather it is a fixed and permanent rule of morals, which reason itself pronounces, and which persists, being a fact so firmly rooted in the soil of human nature.... Since therefore all men are by nature rational, and since there is a harmony between this law and the rational nature, and this harmony can be known by the light of nature, it follows that all those who are endowed with a rational nature, i.e. all men in the world, are morally bound by this law. Hence, if natural law is binding on at least some men, clearly by the same right it must be binding on all men as well because the ground of obligation is the same for all men, and also the manner of its being known and its nature are the same [Locke, 1954: 199].

For Locke, this law qualifies as law because it has the requisite of a law to the extent that it is the decree of a superior will, wherein the formal cause of a law appears to consist. Secondly, it lays down what is and what is not to be done, which is the proper function of a law. Thirdly, it binds men, for it contains in itself all that is requisite to create an obligation. Though it is not made known in the same way as positive laws, it is sufficiently known to men (and this is all that is needed for the purpose) because it can be perceived by the light of nature alone [Locke, 1954: 111]. This, in a very sufficient way, exposes the essence and gist of natural law.

Legal positivism on the other hand consists in a theory which recognizes as valid laws only such enforceable norms as are enacted or established by the instrument of the state. This implies that only statute laws are laws indeed. This is by virtue of the mere fact that they (the statutes) have been enacted by an appropriate political authority. The view and stance of legal positivists is that a proposed piece of legislation acquires the force of law as soon as it has passed successfully through the technical process of legislation regardless of any other considerations [Hart (1982: 21-39), Hart (1961: 198-206, 123-127), Raz (1996: 196-209)].

With regard to the conception, birth, and growth of legal positivism, two figures are outstanding. These are Thomas Hobbes and John Austin in their works, *Leviathan* and *The Province of Jurisprudence Determined* respectively. Hobbes, in his theory of the state of nature and his concept of the social contract developed a foundation which his successors were to develop into modern classical legal positivism. Hobbes's thesis is that

in the absence of a sovereign to enforce the given laws, there are no laws at all for such laws would be merely words of no strength to secure a man at all. This would give rise to the condition in the state of nature in which man lives in continual fear and danger of violent death and the life of man, solitary, poor, nasty, brutish, and short. From this, Hobbes proceeds to develop a legal philosophy that failed to recognize the laws of nature as valid laws. This was a legal philosophy in which the sovereign power is the only source of valid laws. It is the mutual surrendering of the individual rights to self-government and the conferral of the same by all on one body, which Hobbes designated commonwealth, leviathan and mortal god, that has come to be regarded as Hobbes' social contract.

It is in this way that the legal and political philosopher, Thomas Hobbes, paved the way for modern classical legal positivism. His concept of law as a command, his theory of sovereignty or sovereign authority, and his definition of the position of the subject under the commonwealth have all been developed and used by his successors (e.g. Austin, Kelsen) in the propagation of legal positivism.

John Austin in his work, *The Province of Jurisprudence Determined*, was the most historically influential proponent of that theory (legal positivism). Austin clearly delineated the boundary of jurisprudence. His definitional boundary of jurisprudence, of those rules that can be properly called law, excluded everything which was not a command. Austin's propositions therefore exclude from the field of jurisprudence and from the concept of law, customary laws, positive international laws and even

conventional law. These propositions exclude from the province of jurisprudence all those laws which have been laid down by someone other than the sovereign or his representatives. This excludes divine laws as the general command of God and also laws laid down by private individuals and institutions [Okafor, 1984: 157-159]. This conception of law manifests itself in any definition of law which amounts to saying that law is a body of orders backed by threats or that law is a command of a government or a sovereign backed by sanctions or that law is what the courts and judges will consider as just.

It is also important at this juncture to emphasize that how one defines the law depends on the person's conception of justice, which essentially depends on how the person would respond to the six questions raised earlier by Harvey (1975: 209). Thus, Justice is also conceived and defined, broadly speaking, depending on the legal school of thought adopted (either the school of Natural law or the school of legal positivism) [Golding (1975, Ch. 2), Lyons (1984, Ch. 3), Haris (1980, Ch. 2), Rommen (1947), D'Entreves (1951)]. In conception and in practice, legal positivists exclude moral considerations from their legal criteria and contract the province of jurisprudence to narrow confines of positive laws.

Nearly every controversy in contemporary legal theory has as its basis the problem of how the law is to be understood in relation to moral values or to morality [Fletcher (1996: 111), cf. Nyasani (2001: 3-10), Lloyd (1964, Ch. 3), Lyons (1984)]. Often is the predominantly modern claim which any student of the subject will encounter almost

immediately, that a systematic and rigorous analysis of the law requires the separation of law and morality. This separation thesis is generally held to be the defining characteristic of legal positivism. However, despite the apparent clarity of this separation thesis, the thesis has been the source of much confusion and dispute. The confusion and dispute stems from the conceptions of what it means to say that the law and morality are separate, that the law is one thing and morality is another [Raz (1996: 195-237), Hart (1961: 199,203-206), Dworkin (1978)].

Nyasani (2001: 3-10) for example presents a very elaborate and rigorous argument as to why there cannot be a meaningful conception of the law in the absence of a moral foundation. In Nyasani's reasoned opinion therefore, serious talk about law necessarily implies an *ipso facto* (concomitant or concomitantly) conception of a moral foundation. This is to the extent that Nyasani himself says that:

> ... law and morality are intimately connected not as a matter of accident but often as a matter of necessity because of their purported claims to the promotion and advancement of the cardinal social ideals, to wit, harmony, tolerance, cohesiveness, compatibility, integrality and self-sustainability of a social unit. Furthermore, the relationship is invariably complementary and mutually reinforcing and revitalizing since it is true to affirm that where morality has firmly taken root and has become the driving force of the society, there also the entrenchment of the law must be said to take place and to do so by feeling or completing possible moral lacunae in so far as it may posit as a desirable compliment. In a way, this complementarity is to be expected

> because no one can resist or prevent the natural social drawing together of human beings and all for a purpose. This natural congregation or convergence for a purpose cannot subsist without regulatory rules bearing in mind the existence of diversities and perennial conflicts of social interests and individual assumptions and claims [Nyasani, 2001: 3-4].

Nyasani contends further that law is about some aspects of morality which it explicitly protects and promotes. In this case, he says that the existence of morality is effectively a *conditio sine qua non* (a necessary condition, an imperative) for the emergence of any legal regime anywhere. This, he argues, is because the legal regime cannot be conceptualized in the absence of a sort of moral regime no matter how primitive, rudimentary or unconventional. It is in the preceding lights that he says:

> .... Very sinuously and in a roundabout manner, law reaches out to morality through its deontological conditions and claims. Once again law, although not a morality itself, serves as a medium or vehicle for the promotion and preservation of certain public moral principles hence the intimate connection between morality and law.
>
> .... Neither can the law effectively operate where it is found to contradict or even to contravene obvious ethical and, by implication, moral principles in the society.
>
> .... In essence then, there is no viable public morality where there is no viable and effective legal regime in place, in a word, where there is no rule of law.
>
> .... Thus all good and just laws must ultimately be about the promotion and protection of basic positive values in the society and never against them.

> .... Law, civil order and public morality are therefore convertibles. ... it must be concluded that morality is always at the basis of all human legislations and, in fact, the natural agent for the revitalization, reinforcement and respect for the rule of law.
>
> .... Law or the existence of law is really nothing less than an outward expression of the natural moral impulse or the moral sting that is naturally inextricable from human nature [Nyasani, 2001: 5-6].

From the foregoing, it can be appreciated that morality and law may convincingly be argued to be intimately related as Nyasani rigorously attempts to expose. However, tying the law to morality may be argued to constitute a restrictive or narrower conception of the law [cf. Hart, 1961: 198-206]. This is because, then, such regimes as the Nazi Germany, apartheid South Africa or any state that (by conventional standards) is guided by morally odious or outrightly iniquitous 'law' would not, in the strict sense of the term, be said to be guided by law. This is however a debatable conclusion. This is because such a conclusion implies an exclusion from the realm of law any law which is not derived from moral precepts. The wider conception of the law however acknowledges as law all law regardless of morality or moral foundations.

Notwithstanding the wider conception of the law, Nyasani's position echoes a conviction which cannot be taken lightly. This is because it would be impossible to justify the existence of the law without invoking such considerations as the regulation of human behaviour for the common good, harmony and justice in society. As it can be noticed, such considerations have moral or ethical overtones. In other words, the ultimate goal or ideal of the law is of a moral or ethical nature. It is in the preceding regard that therefore

Nyasani's sentiments and any subscription to the school of thought that pegs the law to morality should be appreciated as valid and of utmost practical import. The failure to acknowledge and to take cognizance of the moral or ethical ideals of the law implies the undesirable eventuality that the law constitutes an arbitrary conglomeration of rules and procedures or that the law constitutes rules and procedures whose foundation is mere utility. The first alternative is rather absurd given the general effort and insight entailed in making law. The second alternative is rather myopic in the sense that an elaboration of utility in the sense alluded boils down to such ends as harmony, order, security, relative equality, fairness and justice in general. This means that the existence of even the most morally odious or iniquitous law can only be justified or at least claimed to be justified on the basis of morality however remote or controversial. At least that is the implication of the gist of Nyasani's concern.

It is against the preceding background that Nyasani (2001:10) validly says that:

> All said and done, there is hardly any need to undertake an unnecessary exercise of justifying the relationship between law and morality except perhaps in so far as we may want to explicate the nature and extent of that otherwise obvious connection. This, in itself, is really both an awkward circumlocution and a diversionary sidetrack. The truth of the matter is that law and morality share an intimate relationship and actually converge in many respects both functionally and in their material object. Thus to understand the purpose, social utility and function of the law in the society, it is imperative to understand and

appreciate the aim and role of embracing and practicing morality within the society.

However, there are ways in which the law and morality appear to intersect and overlap, and other ways in which they clearly diverge. For instance, there is often a general expectation that the written law and legal judgment will at least roughly approximate prevailing moral values and moral judgment. A victim of a fraudulent contract or a libel, for instance, seeks legal redress in the expectation that the court will adjudicate in the same manner as would any fair-minded individual independently of the legal context. In this case, morality and the law have a common purpose. In the same breath, the system of criminal justice is expected to reflect popular norms of approval and disapproval. For example, the primary function of the criminal law is commonly taken to be the protection of people from those who threaten or violate the interests of others and the most characteristic criminal offences are those which are regarded as morally wrong (e.g. assault, murder, theft, burglary, fraud, criminal damage and so on). It is to this extent also that the law is no more than the enforcement of a moral code, distinguishing right from wrong in much the same way. In short, if it is wrong, it must be illegal and if it is legal, it must be morally required or at least morally acceptable. In so far as this position is accurate, it can be said that there is a large area of overlap between morality and the law [Tebbit (2000: 3-6), Hart (1961: 199), Raz (1996: 21)].

However, there are ways in which the legal norms substantially diverge from the moral norms. In many respects for instance, the law is less demanding than any serious moral code. For example the law generally does not require acts of charity or assistance which

might be thought morally obligatory. In this sense, the law operates a minimal morality based primarily on the need for restraint. On the other hand, the law is in some senses more demanding than morality. For example, in the case of the requirement of bureaucracy or non-life-threatening traffic offences, one can break law without doing anything morally wrong. An extension of the area of liability as is generally the case in legislation in the twentieth century for harmful acts or omissions which are not directly intended and for which one would not normally be blamed is an illustration of the more serious senses in which the law may be more demanding than morality. On the face of it therefore, the law has been ahead of popular perceptions of moral responsibility in this context [Tebbit, 2000: 3-6].

Law and morality may also be said to be difficult to harmonize in the light of a number of contemporary disagreements over such issues as the right to own firearms, the hunting of various kinds of animals, the stage of pregnancy at which abortions become unacceptable and the illegality of nearly every form of euthanasia. All these echo an uneasy relationship between morality and the law. On such matters, the law cannot reflect the prevailing moral code, because there is no general agreement on the rights and wrongs at stake. In these contexts, the law must be out of step with morality in the specific sense that it cannot match the prevailing moral beliefs of society as a whole [Hart (1961: 204-205), Tebbit (2000: 3-6)].

The 'myth' of the congruence between morality and law is also exposed by any reflection on the history of institutionalized injustice and the struggles for equality and human

rights. Penal codes sanctioning excessively cruel or inappropriate punishment, the legal endorsement of slavery and the slave trade, the barring of religious and ethnic minorities from the professions, and the denial of civil rights to women have all been opposed primarily through pressure for legal reform. The segregative and oppressive laws in the Nazi Germany, the laws establishing and upholding apartheid in South Africa and the US racial segregation laws have all been taken as outstanding examples of manifest incongruence between morality and the law [Tebbit (2000: 3-6), Raz (1996: 195-237), Dworkin (1986: 101-108), Hart (1961: 198, 200, 203-206), Hart (1958: 593-629)]. As Tebbit (2000: 5) writes:

> .... Many of these, of course, have been in step with the prevailing local morality of the day, and hence there is no necessary antagonism between the state of the law and the demands of contemporary moral perceptions or sense of justice. It is only from the standpoint of moral objectivism that it can be argued that the demands of justice rise above any particular social belief system and that such laws can be judged in absolute terms as right or wrong. Moral relativists tend to argue that what usually happens is that with the advance of civilization, the law comes into conflict with evolving moral norms as these practices are increasingly perceived to be wrong: and that the law continues to protect outdated moral beliefs until it is reformed. Either way – moral objectivists or relativists – these examples show that there is at least a permanent tension between morality and the law, and that moral values never rest easily with the state of the law at any given stage of its development.

However, the central contention of the positivists' separation thesis is that the law is one thing and morality, or the moral evaluation of the law is another. This means that the connection between law and morality is contingent, that laws do not always coincide with moral values or moral codes. In effect, the contention is that there is no necessary connection between morality and the law such that a law does not have to conform to any moral standard to be counted legally valid. The separation thesis does not, however, mean that legislators and judges are concerned exclusively with legal matters and should be quite indifferent to the moral rights and wrongs of the law. This however may be true up to a point, if the administration of a specific law is concerned more with the protection of sectional interests than with promoting justice, or if a judge believes that he or she is obliged to apply the letter of the law even when it is morally counterintuitive [Hart (1961: 199,202), Harvey (1975: 118-119, 210-219, 748-752)].

At this juncture, it is also imperative to highlight that the cardinal distinction between natural law theory and legal positivism revolves around the conception of justice in the two schools. The conception of justice however is influenced by the conception of how the law relates to morality. Natural law theorists such as Plato, Cicero and Locke built their conception of justice on an absolutist interpretation of the concept. On the other hand, legal positivists such as Hobbes, Austin and Kant build their conception of the concept on a rather moderate interpretation.

In the school of natural law, justice is conceived in terms of action or behaviour that is in accordance with the precepts of the law of nature as dictated by objective human reason

(i.e., the rationality of man) in line with nature or by the will of God through the scriptures or by the nature of things. In the positivists' school however, justice is conceived mainly in terms of the adherence of action or behavior with the actual legal provisions. It is in this latter case that morality is seen not to be the prime consideration while in the earlier case morality is in fact the foundation of law. For example, Plato and Aristotle deal with the concept of law as if it were an aspect of morality. On the other hand, Hobbes, Austin, among others, do not immediately focus on the significance of morality. Hobbes's general position is that it is the law through the ruler that injects morality in society such that morality cannot be conceived in the absence of the law, that the law precedes morality and by implication it is inappropriate to evaluate the law (as prescribed by the law-giver so long as in such prescription the law giver guarantees order and security for the commonwealth) against the yardstick of morality. This is just the opposite of what Plato and Aristotle and other natural law theorists contend of the relation between law and morality and (by extension therefore) their conception of justice.

For natural law theorists such as Aristotle, Plato, Locke, Cicero among others, and in fact generally ancient Greek philosophers, justice is tied to morality and ethics. Plato in his socio-political philosophy of Aristocracy, and Aristotle in his socio-political philosophy, polity, contend quite categorically that the state be founded on ethical and therefore moral principles. In effect, Plato (1982a), (1982b), (1987) and Aristotle (1985), (1943) address the law and justice as if they were an aspect of morality.

In the preceding regard, there is no sufficient ground to doubt the harmony that exists between the school of natural law and rationality conceived in the wider sense as discussed in this thesis (see chapter 1, 2, 3 and 4). This position is taken on the basis that natural law is informed by morality and sentiments to the extent that it echoes good conscience, insight and good faith [Aristotle (1924: 1.18.2), Cicero (1928: Book 1), Rommen (1947), D'entreres (1951), Golding (1975, ch.2), Lyons (1984, ch. 3), Harris (1980, ch. 2)]. These are features that inform rationality conceived in the wider sense. On the other hand, it is not sufficiently clear and evident that legal positivism would essentially or fundamentally be reconciled or harmonized with rationality conceived in that wider sense. This disharmony is principally attributed to the mechanical and logical requirements imbibed in legal positivism following the separation thesis [cf. Adams, 1992: 138]. The rigid and mechanical reasoning that informs legal positivism is for instance echoed and illustrated by the contention that:

> The reason coherence functions as the criterion of truth is that legal form is concerned with immanent intelligibility. Such an intelligibility cannot be validated by anything outside itself, for then it would no longer be immanent. Formalism thus denies that juridical coherence can properly be compromised for the sake of some extrinsic end, however desirable. The sole criterion is an internal one. Form is the principle of the unity immanent to an ensemble of legal features, and judgment about intelligibility can flow only from this unity. Because the intelligibility of form is immanent to its content, no other criterion is available; and if immanent intelligibility is ... the most satisfactory mode of understanding, no other is needed.

> Not only can no point outside the form vindicate the truth of formalism, but no point or points, atomistically viewed, located inside the form can do so either. Because form constitutes the unity of a set of legal phenomena, no single element has a significance that is independent of its interplay with the others. Therefore, it is not the presence or absence of this or that desirable feature that is decisive for judgment about a juridical relationship, but the extent to which all of its features cohere [Weinrib, 1988: 73, 972].

The cardinal point is that legal positivism is in this study construed to rest on a narrower scientistic conception of rationality while natural law theory rests on a wider and more comprehensive conception of rationality. It is in fact the argument of this thesis that due to the fact that legal positivism is based on the narrower scientistic conception of rationality (mainly informed by logical and therefore mechanical reasoning as is evident in the above quotation), there has been need to complement or supplement legal positivism with such principles as equity and prerogative powers of the executive (at least as propounded by Locke as the powers of the sovereign to act according to his/her discretion for the common good without the prescription of the law and even against it). This is requisite for any legal system to be perceived to be founded on rationality in a sustainable way, fundamentally and essentially capable of enhancing or guaranteeing justice in the ultimate sense as conceived in the school of natural law.

However, it is imperative for the purpose of sustaining this thesis to highlight the gist of legal positivism in order to provide even stronger grounds for the assertions levelled above with regard to the fundamental source of the apparent irrationality or theoretical

insufficiency (or inaccuracy) of legal positivism on grounds of conflating logical reasoning with rational reasoning. It is the position of this study that while legal positivism is founded on an emphasis on authority and the mechanisms of power (and this can be appreciated in the light of the ideas of Hobbes & Austin), Natural law theory is founded on an emphasis on authority and legitimacy.

Emphasis on authority and legitimacy is geared towards the attainment of the higher form of justice and is more in harmony with the wider conception of rationality where logic plays a secondary role of ensuring internal consistency and coherence. An emphasis on authority and the mechanisms of power breeds mechanical reasoning informed by logic and this enhances and only guarantees justice in a narrower formal sense [cf. Sunstein (1996: 6-36, 50), Dworkin (1986: 412), Finnis (1987: 375)]. Such emphasis on mere authority and mechanism of power can only propagate a scientistic, narrower rationality. Such logical and scientistic reasoning cannot invariably guarantee a manifestation of good conscience, insight and good faith in decision making in the legal realm. But good conscience, insight and good faith (as generally echoed in the second chapter) are argued in this thesis to be requisite for a wider and more comprehensive rationality.

Natural law theorists and legal positivists conflict in intuition about the origin or source of law. Each confronts the question, 'what is law?' and each answers it in terms of where law comes from. Legal positivism has as the basis of law a human convention, something decided or stipulated at a determinate time by the flesh and blood individuals, for a particular purpose, with a specific function in mind. In that sense, law is an

agreement because it is an outcome of decisions, rather than the issue of something beyond human control. The makers of these laws are individuals in a position of power that is sufficient to impose their will on the whole community and the rules and sanctions thus put into effect might be implemented with or without consultation or consent. What law is therefore can be explained in terms of what has been decided and laid down as law. The laws thus created might reflect any interest or none, they may be steeped in wisdom and justice, or they may be widely regarded as tyrannical. However, such considerations are irrelevant at the stage of definition of law in legal positivism. The question as to how good or bad the laws are has no bearing on their status as laws in legal positivism [Tebbit (2000: 1-34, 36-64), Raz (1996: 195-238), Hart (1961: 202-206), Hart (1994), Kelsen (1967), Raz (1979), Raz (1994)].

On the other hand, the school of natural law has as the basis of law something which is beyond human control or arbitrary decision. It is something which binds law-makers quite irrespective of what any individual or group wishes or decides. To this extent, law is the outcome, not of human agreement, but of first principles of natural foundations, the value of which runs deeper than the usefulness or expedience of conventions. In this regard, laws are discovered rather than made. Thus, actual human makers of positive law are constrained by objective considerations relating to the intrinsic nature of the laws, considerations of justice which are external to the will of the legislators. If they ignore these constraints, they are not making law at all [Hart (1961: 206), Raz (1996: 210-237), Tebbit (2000: 1-34, 36-36-64)]. Following from the basis of natural law is the common belief that legal officials, councils and governments cannot or should not act in a way

which is contrary to natural justice or reasonableness. The idea is more serious in the further belief that when they do in fact act in such ways, it is within the power of judges of the higher courts to rule them illegal, or – for example, in the USA – unconstitutional [cf. Maguire, 1980: 121-122].

The greatest problem with regard to natural law theory however is epistemological to the extent that a clear, distinct, and categorical answer to the following three questions is often not attainable. The questions are:

(i) Can we know such a law with certainty?

(ii) What is the means of knowledge of such a law?

(iii) What is the criterion for such a law?

Although any natural law theorist would attempt to answer these question often answering the first question in the affirmative, postulating reason or the rationality of man as the proper means in response to the second question and basing the validity of such a law on the conformity of the law with what nature dictates as the answer to the third question, such attempts and answers do not really dispense with the epistemological difficulties as can be appreciated. But it is such primordial openness and the relative lack of fixity that renders the school most harmonious and reconcilable with rationality construed in the wider sense as discussed and evolved in the first, second and third chapter. It is the argument of this thesis that the wider conception of rationality that incorporates such considerations as morality, legitimacy and emotion (under which

sympathy, mercy empathy among others fall) fits well with this more comprehensive conception of law and by extension justice. It is only in this natural conception of law (it is argued) that the outstanding precepts of justice (good conscience, good faith and insight) can be guaranteed.

On the other hand, the positivistic conception of law (and by extension, justice) can only be sustained on the plane of a narrower scientistic, positivistic conception of rationality. This is because it is only in such a positivistic conception of rationality that the mechanical jurisprudence and fixed/rigid logical reasoning can be sustained. The dictates of justice in the ideal sense (good conscience, good faith and insight) cannot be guaranteed on the foundation of any fixed system, as is characteristic of legal positivism and rationality in the positivistic sense. This is because justice and rationality are construed in this thesis to be informed by the need to particularize events or reality while logic and the positivistic thinking that is founded on it attempts to perceive reality or events in universal and generalized terms. Thus logic and the positivistic thinking that is founded on it are to this extent argued to be unable to invariably satisfy the expectations of justice and rationality in such ultimate and immutable terms as evolved and construed in this thesis.

In the preceding regard, laws which conform to nature are inherently just laws, because they embody moral principles and prohibit actions which are unjust in the sense that they are contrary to the enjoyment of natural goods. Thus, for Aquinas (1948), (1988a), (1988b), the highest moral precept, to do good and avoid evil, is the source from which

all the primary and secondary precepts are derived. Secondary precepts such as norms governing fair trade or the exchange of contracts are derived from the more fundamental precepts relating to the natural value of self-preservation. In this way, the entire body of positive law, enforcing sanctions against actions such as violent assault, theft and fraud, can be justified by reference to first principles which are self evident to reason. In other words, the meaning of law and the meaning of justice are completely interwoven. This is the conception of law and justice in the school of natural law.

The preceding discussion provides a foundation for discussing legal reasoning so that it would then be possible to evaluate the extent to which such reasoning is justified or sustainable in the light of rationality conceived in the narrower and in the wider sense (as discussed in the second chapter). By so doing, the relevance of logic thus far will be exposed. The exercise will therefore lay foundation for a reasoned articulation of the ultimate nature of the relationship between logic and rationality. This is the gist of the study.

LEGAL REASONING

By legal reasoning, legal theorists could mean three things. They could mean reasoning to establish the existing content of the law on a given issue. They could also mean reasoning from the existing content of the law to the decision which a court should reach in a case involving that issue which comes before it. By legal reasoning, legal theorists could also mean reasoning about the decision which a court should reach in a case, all things considered [Raz (1996: 238-253, 277-325, 326-340), Dworkin (1986: 101-108), Finnis (1987:357-380), Sunstein (1996: 6-36), Hart (1958), Hart (1994), Raz (1994)]

The three positions are the possible senses in which legal theorists may use the phrase legal reasoning. These are more specific and clearer descriptions of legal reasoning compared to the rather ambiguous and vague descriptions of legal reasoning as reasoning about the law and reasoning about how judges should decide cases. In this thesis however, the phrase legal reasoning has ultimately been used in the third sense. This is because the phrase construed in this sense circumvents some of the nagging but valid intractable questions that arise when the phrase is used in the first and second senses (as is exposed in the body of the thesis) [c.f. Hart (1994), Kelsen (1967), Raz (1979), Raz (1994)]. Thus, this thesis construes legal reasoning to ultimately mean reasoning about the decision which a court should reach in a case, all things considered. The adoption of this conception of legal reasoning serves to avoid and even resolve the conceptual problem that arises from the positivistic criterial conception of legal reasoning as echoed in the first sense and in the second sense. This is the problem of conflating the nature of

the law with the theory of adjudication. This fails to take cognizance and to appreciate that a more consistently tenable and comprehensive conception of legal adjudication is one which provides for extralegal considerations (morality, sentiments and ethics) in adjudication. This is a theory of adjudication which goes beyond the relevant legal provisions (as is seen in the "gray areas" of the law, in "hard cases" in particular). In these circumstances and sense, the theory of adjudication goes beyond the theory of law.

Legal reasoning often rests on presenting a case, analyzing arguments, assessing evidence, determining the credibility of witnesses, spotting fallacious reasoning and being able to write and speak clearly and defensibly (Teasy, 1996: 412]. However, reasoning within the law is not simply a subcategory of any other form of reasoning. It combines different kinds of reasoning. No particular feature of reasoning within the law is distinctively and uniquely "legal" but the context of legal decision colours the force of reasons that matter. However, reasoning relevant to reaching legal decisions, in its entirety, is not fully autonomous. Some elements of reasoning within the law are forms of reasoning common to non-legal inquiries.

Like moral reasoning and prudential reasoning about how to achieve given objectives, reasoning within the law is practical reasoning about what should be done. But reasoning within the law is largely about the meaning of authoritative materials and their implications for practical issues that arise in social life [Greenawalt (1992: 198), Teays (1996: 412-413), Lloyd (1981: 284-299)]. This aspect does distinguish law from techniques of determining efficient outcomes and from typical modern secular thought

about moral and political philosophy, which does not rely on previously made and recorded normative decisions. It also distinguishes law from ways of ascertaining cultural morality, mainly sociological and psychological inquiries [Greenawalt. 1992: 198]. Any "autonomy" of legal reasoning rests on the distinctive mix of relevant reasons within the law. The mix derives from the special functions of law, the richness and complexity of legal materials, the institutions that make legal judgments and other aspects of legal systems [Sunstein (1996: 13-34), Lloyd (1981: 299), Greenawalt (1992: 202)].

There are at least three ways in which the mix of reasons is distinct. First, the blend of reasoning from authoritative sources with threads of other kinds of reasoning is not exactly replicated elsewhere. The second way is in how the broader reasons combine. The respective places of sociological inquiry and moral analysis are not quite the same for reasoning within the law as for reasoning towards other social decisions. For instance (as already discussed on how law relates with morality), the law may sometimes demand more than morality would while in other times morality may demand more than the law would. Finally, reasons that look very similar may have a different weight within and without the law [Greenawalt 1992: 202]. This is especially exemplified in the caution to conflate the law with morality. This is because the demands of morality may go beyond the provisions of the law and at the same time the requirements of the law may be ahead of moral expectations. Thus, distinctive legal reasoning is not a subcategory of any other single kind of reasoning, nor is it any neat, easily explicable combination of various forms of reasoning [Sunstein, 1996: 17-19]. As Greenawalt (1997: 70) notes:

> Chaos theory, which concerns highly complicated causal relationships that do not repeat themselves exactly as with weather patterns, may have more obvious relevance for problems of human choice, including legal choice. The way legal doctrines develop by incremental decisions themselves affected by a wide range of variables may resemble other patterns described by chaos theory. Shifts in social conditions, attitudes, or legal material not closely related to the issue to be decided can alter predictions of outcomes.

Legal reasoning may simply be defined as reasoning about the law or about how judges should decide cases [Raz (1996: 326-340), Sunstein (1996: 13-17)]. However, defining legal reasoning as such is ambiguous, at least due to the differences that there are in the conception of the law particularly between legal positivism and the theory of natural law. This is because the fundamental questions, "what is the law", and "how should judges decide cases?" have been regarded as distinct questions with distinct answers [Hart (1961), Kelsen (1945), Kelsen (1967), Raz (1996), Raz (1979)]. In other words, in such separation of the two questions, the understanding is that the account of the law and the account of adjudication are not one and the same thing. The contention in this regard is that in settling disputes presented to them, the remit of judges is wider than merely trying to establish what the law is as regards the issues in the case at hand. In this case, extra-legal considerations can come into play in adjudication. Judges may thus have discretion to modify existing law or to fill gaps where existing law is indeterminate [Hart (1961: 2-143), Raz (1996: 326-340)].

In the preceding light therefore, to define legal reasoning as reasoning about the law is ambiguous between reasoning to establish the content of the law as it presently exists and reasoning from that content to the decision which a court should reach in a case which comes before it. The second formulation, where legal reasoning is defined as reasoning about how judges should decide cases, is also ambiguous on some approaches to legal theory. This is because of a distinction between the answers to the questions "how should a court decided a case, reasoning from the existing law applicable to it?" and "how should a court decide a case, all things considered?" [Jackson, 1970: 2]. A good example to illustrate this position is a situation where the law on some issue is so morally odious that, all things considered, the judge should not decide the case according to the law at all, but rather should refuse to apply the law [cf. Dworkin, 1986: 101-108]. This example is intellectually very stimulating in considering the question whether the Nazis had law, whether the law in Apartheid South Africa was law and the same applies to segregatory laws in USA at the time of the struggle for the equality of the 'Blackman' with 'the whites'.

Thus, legal reasoning could mean three things:

(i) Reasoning to establish the existing content of the law on a given issue,

(ii) Reasoning from the existing content of the law to the decision which a court should reach in a case involving that issue which comes before it, and

(iii) Reasoning about the decision which a court should reach in a case, all things considered.

Imperative to emphasize here is that the conception of legal reasoning in the realm of legal positivism is captured by a combination of the first two possibilities. This implies reasoning that is founded on systematicity and systematization and therefore clearly and distinctly predictable, thus justifying rigid logical reasoning [cf Paton, 1964: 74-173]. In other words, legal reasoning defined in such a positivistic sense is justified on the basis of rigid logical requirements. This is what characterizes legal positivism and is echoed by Gordon (1993: 239-292), Geffner and Pearl (1992: 44-209). Therefore, legal positivism essentially provides in its construct, a basis for rigid deductive and inductive reasoning.

In his description of legal reasoning, Sunstein (1996: 17) applies the notion of "reflective equilibrium", borrowing from John Rawls (1971: 19-22, 46-51). In this regard, Sunstein holds that ethical, political and legal reasoning can be understood to constitute "an effort to engage with general principles and with considered judgments about particular cases with all possible principles and judgments in between". Sunstein says that there are a number of abstract, concrete and intermediate things that individuals hold to be true, and he calls such things provisional "fixed points" because of the high degree of confidence ascribed to them. He holds that reflective equilibrium can be realized when what is thought to be the general theory is adjusted to conform to what is thought to be considered views about particular cases. That the particular views are adjusted to conform to the general theory and vice versa. He further emphasizes that neither the particular nor the general ought to suffice since neither is foundational.

The main point that is emphasized here and that needs to be seriously highlighted is the relative indeterminacy and incompleteness of the law or legal provisions. This renders inappropriate if not dangerous the theoretical assumptions of legal positivism, the reality of the ideals of logic. In this regard, just as already echoed by Sunstein, Lloyd (1981: 298-299) contends that the law is not just a static collection of ascertainable rules by means of which one can at any given moment analyze all the legal implications and relationships which a given concept may entail (as would be expected from the point of view of logic and as legal positivism assumes, following the ideals of logic that it rests on). An instance of this sort of thinking is however seen in Nyasani (2001: 134-136) where he shows how inevitable the deductive and inductive (hypothetical, analogy-based or simply probability-based arguments or reasoning) models of reasoning are absolutely inevitable in legal reasoning.

Lloyd's position is that on the contrary, the law is a great complex of rules, precepts, standards, and principles in a process of continuous though slow-moving flux. Among the central features of this complex are certain key-concepts, not rigidly fixed in character nor finally determined in number – for new concepts may emerge, such as the right to privacy. No doubt these concepts can at any given moment be reduced to a large extent to a pattern of rules and principles, but still, he says, there is always a certain area of indefiniteness, a sphere within which the concept may be put to fresh and not altogether predictable uses and applications. For this purpose, the concept has a certain symbolic function within the law as the focal point for a certain type of attitude or approach, and its significance therefore goes beyond any particular pattern of rules ascertainable at any

given moment. Lloyd says that moreover, this symbolic ganglion in the legal system is not and can never be a fully-grown and finally developed organ. He says that in this incompleteness lies its (the ganglion's) fundamental utility as a tool of legal development.

It can therefore be appreciated and noted that the law and by extension legal reasoning perceived and conceived as such (incomplete and in a slaw but certain flux) echoes the primordial openness and relative indeterminacy articulated in chapter two and echoed throughout this thesis as requisite for a comprehensive conception and observance of rationality. This also means that the systematicity, certainty, predictability and completeness that characterizes logic and which legal positivism essentially assumes [cf Dworkin, 1986: 101-108] cannot be reconciled with legal reasoning construed as such.

However, legal reasoning construed as such is not to be misunderstood to imply wild arbitrariness and unpredictability. In fact, accurately interpreted, legal reasoning in the sense alluded does not at all lead to arbitrary decisions or judgments. As already mentioned, this kind of reasoning is guided by certain and definite starting points, remote (as is the case of analogical reasoning in precedents) or proximate (in the case of statutes). But these starting points are not conceived to be absolute. This means that adjustments are made in accordance with the practical dictates.

As Kekes (1976:133) highlights;

> A man demonstrates his rationality, not by a commitment to fixed ideas, stereotyped procedures, or immutable concepts, but by the manner in which, and the occasions on which he changes these ideas, procedures and concepts.

It is in the preceding regard that legal reasoning should thus be appreciated as reasoning about the decision which a court should reach in a case, all things considered. It should also be noted that such a conception of legal reasoning is founded on a wider conception of rationality and a tendency away from the restrictive, positivistic and narrower conception of legal reasoning and rationality implied by legal positivism [Dworkin, 1986: 101-108]. It is in the endeavour to elaborate, demonstrate and concretize the preceding propositions that the next subsection follows.

THE IMPORT OF LOGIC IN LEGAL REASONING AND THE COMPATIBILITY OF SUCH IMPORT WITH THE WIDER CONCEPTION OF RATIONALITY.

The importance and inevitability [to some extent as argued by Paton (1964) and Nyasani (2001)] of deductive and inductive reasoning in legal reasoning notwithstanding, the bone of contention arises from the rigidity that essentially characterizes legal positivism. In this regard, legal positivism assumes a complete and sufficient system that can address all the problems that are presented (in terms of litigation) [cf. Dworkin (1986: 52), Fish (1989: 133), Dung (1995: 321-357), Prakken and Sartor (1998: 231-287), Skalak and Rissland (1992: 3-44)]. Thus, legal positivism does not provide room for extra-legal considerations, an assumption which relegates legal reasoning conceived in a positivistic sense to the narrower scientistic conception of rationality. This is argued in this thesis to be the source and a basis for criticism and the insufficiency and limitation of legal positivism to enhance and guarantee justice as construed in the theory of natural law [cf Jackson, 1970: 2].

The spontaneous question one may ask at this point is "why must legal positivism be evaluated on the yardstick of natural law theory?" The answer rests in the second and third chapter (on rationality) and the fourth chapter (on logic). In these three chapters, the two levels of rationality (the narrower and the wider) are discussed to the extent of their tenability. Also, in the light of the tenability of the two levels of rationality, one would appreciate from the three chapters that natural law theory harmonizes, fits, reconciles and measures to the standard of the wider conception of rationality, what is

argued in this thesis to be the more accurate conception of rationality. However, given its positivistic foundation and its strict adherence to the ideals of logic, legal positivism has no place for considerations such as morality and mercy as such while the theory of natural law provides for a modicum of morality and mercy for true justice. As is evident in the second, third and fourth chapter, a minimum of emotions such as mercy, sympathy and empathy are argued to be of necessity in the more comprehensive conception of rationality (the wider conception of rationality that retains the human element) and also justice. It is in this regard that it is contended that:

> Justice untouched by mercy is minimalistic and stinting in its response to persons. Justice is incipient love and thus has some native ties to generosity and enthusiasm .... True justice must have at least a spark of great-souled appreciation of the persons to whom it attends. Where this is not present in a society, the extremes of poverty and wealth will co-exist, exploitative power will wax strong, and the poor will wax weaker and poorer.... This link to mercy and enthusiasm is true for all forms of justice but is especially true for social-distributive justice which would direct powerful societal patterns of redistribution [Maguire, 1980: 123].

Also in the same line of thought that upholds a minimum of emotional and moral considerations for real justice to be observed and a wider, and therefore more comprehensive rationality to be exhibited, is the contention that:

> By ignoring facts relevant to moral rules and principles, a court would cut itself off from much of the total setting of a case, with the

> detrimental effects already noticed in trials by chance. A rational decision – and this requires repetition – must be a decision of the total situation in which it occurs. Facts which have moral or ethical significance, form part of this 'total situation' [Gottlied, 1968: 59].

Hence, legal positivism has to be evaluated against the yardstick of natural law theory and the wider conception of rationality.

Just to illustrate the assumed sufficiency and completeness of legal reasoning in the realm of legal positivism, the assertion of complete determinacy justified by logic, Dworkin (1978, 1986, 1991) argues that when judges decide a case according to law, in effect they simply and merely ascertain the content of the law and apply it to the facts of the case (as echoed by the first and second possible conceptions of legal reasoning). This means that judges never resort to extra-legal considerations in deciding cases according to the law.

Although it may be cautioned that judges do in fact take account of the findings of the jury, matters which are fact-related, it is important to note that in the thoroughgoing conception of legal reasoning as echoed by Dworkin, even what are admissible as 'facts' or 'relevant facts' on the basis of admissible evidence (in the eyes of the law) are by implication expressly and very categorically defined and prestated. This phenomenon is very restrictive to the extent that what, as a matter of fact may constitute the relevant fact(s) may not, in the eyes of the law, pass as relevant fact(s). Moreover, such inadmissible evidence and by implication fact(s) may however be the ones that ought

actually to be given emphasis in the relevant case [c.f. Gottlied, 1968: 59]. However, in such a thoroughgoing positivistic conception of the law and legal reasoning, all considerations which the judges are entitled to take into account are understood to be part of the law [Kelsen (1970: 201-204), Raz (1996: 252-253), Dworkin (1986: 52, 101-108)]. It is in this light that it has been contended for example that:

> The judge is not called upon to determine what course would be intrinsically the most advisable in the particular case in hand, but only within what rule of law it falls; what the legislator has ordained to be done in the kind of case, and must therefore be presumed to have intended in the individual case. The method must here be wholly and exclusively one of ratiocination or syllogism: and the process is obviously what in our analysis of the syllogism we showed that all ratiocination is namely, the interpretation of the formula [Mill, 1956: 616].

It is this kind of thinking that justifies and invokes the relevance of logic in legal reasoning especially as construed in the realm of legal positivism. Deductive and inductive reasoning in this sense become the cornerstones upon which legal reasoning rests. Echoing this school of thought is the contention that:

> ...The human mind still functions according to the rules and laws of logic and invariably approaches issues using analytical tools, techniques and procedures. Prominently featuring in the category of techniques and other innovative skills, are inevitably the application of

> the syllogistic procedures and specifically the use of deductive and inductive modes of reasoning.
>
> In my other book: Introduction to Traditional Logic, I have attempted to clarify such concepts as deductive and inductive modes of argument and stressed the key role these two types of reasoning models play in the life of all analytically-oriented thinkers. Equally, I have made a rather subjective and possibly judgmental statement to the effect that the best trial lawyers and judges may be people who are well-versed in the art and technique of the use of logic. I still stand by this contention considering the immortal and perennially imperishable legacy by the master of traditional logic, Aristotle, in the invention and the versatile use of the syllogism. The truth of the matter is that no human mind can escape the use of the syllogism in all simple inferences nor can it dispense with it entirely no matter the pressure of the complexity, supremacy and intricacy of the new technological substitutes or other revolutionary inventions of modern era [Nyasani, 2001: 93].

The emphasis put on the logical foundation of legal reasoning especially construed in positivistic terms is also articulated by Brewer (1996: 995 - 1001) when he says that:

> What is not perspicuous in the manner of presentation of an informal argument, and what therefore calls for theoretical explication, is its logical type (inductive, deductive e.t.c.).
>
> In Anglo-American legal practice, judges do not – indeed, cannot – state all the necessary and sufficient conditions for a legal concept. But they may logically evolve a concept that begins abstractly with perhaps only a few clear (non vague) applications into one that moves

> asymptotically toward a complete definition that specifies all of the concept's necessary and sufficient conditions. Although the idea of logical evolution may be something of a philosophical fiction, many of the most famous of the highly open-textured analogical opinions immediately move to offer precise (non vague) necessary or sufficient conditions which are then applied deductively in the final step of the opinion.

But the upholding of the logical foundations of legal reasoning especially in the realm of legal positivism notwithstanding, it is the argument in this thesis that there has to be some caution about that kind of thinking. In this regard Gottlied (1968: 15) says that:

> We have in England a deep distrust of logical reasoning: and it is for the most part well-founded. Fortunately, our judge-made law has seldom deviated into that path; but on some of the rare occasions when it has done so, the results have been disastrous.

Gottlied (1968: 18) substantiates his caution by saying that more often than not, there are usually many competing major premises (rules) advanced, but syllogistic reasoning cannot enable one to determine the appropriate one to be adopted or the applicable one. That the selection of the relevant facts, which make up the major premise from the total situation in which a choice or judgment is required cannot be resolved by reference to the deductive syllogism nor can questions about factual situations not contemplated in the major premise of the syllogism such as questions involving novel factual circumstances

be deductively resolved by resort to premises antecedent to such circumstances. In this light, Hart (1961: 125) says that:

> If the world in which we live were characterized only by a finite number of features, and these together with all the modes in which they could combine were known to us, then provision could be made in advance for every possibility. We could make rules, the application of which to particular cases never called for a further choice. Everything could be known, and for everything, since it could be known, something could be done and specified in advance by rule. This would be a world fit for 'mechanical' jurisprudence.... Plainly this world is not our world; human legislators cannot have such knowledge of all the possible combinations of circumstances which the future may bring. This inability to anticipate brings with it a relative indeterminacy ....

The limitation of the applicability of logic in the realm of human social behavior especially in the legal arena lies to a great extent in the difference between physical nature and human social life. In this respect Mill (1956: 546-548) says that:

> Concerning the physical nature of man as an organized being ... there is, however, a considerable body of truths which all who have attended to the subject consider to be fully established; nor is there now any radical imperfection in the method observed in this department of science by its most distinguished modern teachers. But the laws of mind, and, in even greater degree, those of society, are so far from

having attained a similar state of even partial recognition, that it is still a controversy whether they are capable of becoming subjects of science in the strict sense of the term; and among those who are agreed on this point there reigns the most irreconcilable diversity on almost every other.

Are the actions of human beings, like all other natural events, subject to invariable laws? Does that constancy of causation, which is the foundation of every scientific theory of successive phenomena, really obtain among them?

... given the motives which are presented to an individual's mind and given likewise the character and disposition of the individual, the manner in which he will act might be unerringly inferred; that if we knew the person thoroughly, and knew all the inducements which are acting upon him, we could foretell his conduct with as much certainty as we can predict any physical event.

No one who believed that he knew thoroughly the circumstances of any case, and the character of the different persons concerned, would hesitate to foretell how all of them would act. Whatever degree of doubt he may in fact feel arises from the uncertainty whether he really knows the circumstances or the character of some one or other of the persons, with the degree of accuracy required; but by no means from thinking that if he did know these things, there could be any uncertainty what the conduct would be.

Against the foregoing background, it is opportune to quote Gottlied (1968: 20) thus:

To pretend that inductive reasoning can guide the making of judicial decisions overlooks the objection that induction can be used only when

> the observables and propositions under which they fall are beyond our power to change. The borrowing of the language of natural science to describe normative processes serves merely to blur irreducible distinctions between separate universes of discourse.

The point that is being highlighted so far is that although logic may be 'perfectly' applicable in the realm of natural sciences hence the appropriateness of the positivistic, criterial conception of rationality (in science and in the world of physical nature in general) as logicality, there is a significant limitation with regard to its (logic) applicability in the realm of human social life. This limitation is explained in terms of the fact that logic rests on systematicity (coherence and consistency), completeness of system, clear and distinct form, clear definition and certainty of concepts and their applications, all of which guarantee absolute predictability (at least in logical terms), features which do not however invariably hold in the realm of human social life. In the realm of human social life, such certainty, completeness, systematicity and therefore predictability is not invariably observable and could only be experienced relatively so.

In the evaluation of legal reasoning as construed in legal positivism, it is imperative to as well focus attention on 'hard cases'. Here, the central problem revolves around the issue of what judges are entitled or obliged to do when faced with a case for which there is no clear judicial precedent or upon which there appears to be no definite and unambiguous statutory guidance.

It was clear to Austin (1955) that in practice – even if the legal system has been thoroughly reformed and purged of the irrational elements in common law – the sovereign could not allow for every eventuality, every case that comes before its courts. In Austin's thinking, for the purposes of cases not covered by posited law, the sovereign delegates powers of discretion to its judges, powers which are only to be used when there are no appropriate general rules to apply to the particular case (this is to say that when the law runs out). Austin believed that the inevitability of unforeseeable cases was based on the inherent vagueness or lack of perfect precision in the wording of the law. The delegation of powers of discretion was inevitable because of what he called 'fury edges' of the law (what is ordinarily referred to in legal philosophy as "the gray areas of the law"). On this account, one of the most important functions of a judge is to act as a subordinate deputy legislator to create new law by clarifying these 'fury edges'.

From the point of view of Hart (1961: 2-143), the nature of law is such that some degree of discretion is unavoidable. This is because no matter how well drafted the legislation and how wide-ranging existing precedent in case law, the established rules cannot cover every eventuality. In this regard, nearly all rules lack certainty in their range of reference. For him, there is often in hard cases what he calls a 'penumbra of uncertainty' surrounding the application of a rule. This penumbral quality of a rule is explained by the language in which any kind of rules- legal or otherwise- are invariably expressed.

Sometimes it is possible to express a rule so precisely as to avoid any ambiguity or vagueness but this is often impossible because of the open texture of language. The

example that Hart gives in this regard is the word 'vehicle' in a bye-law banning vehicles from a public park. Although there is an undisputed core meaning of the word (applying to cars and motorcycles), the application of the word to such things as bicycles, pedal cars, roller skates, skateboards or even prams is not certain. Unless they are specified by the rule, these cases are, according to Hart, left to judicial discretion as to what is to count as a vehicle.

For Hart therefore, it is not always easy or even possible to apply existing law. This is because the indeterminacy of rules makes it inevitable that a certain amount of strong discretionary judgment has to be made in court. According to him, without some degree of discretion, there would be engendered a repressively rigid legal system as is the case with the implication of Dworkin's (1986: 52) complete determinacy.

An example of a 'hard case' is Riggs v. Palmer (New York, 1889) [Adams, 1992: 138]. In this case, the relevant facts were as follows. Elmer Palmer was a sixteen-year-old who successfully prevented his grandfather from changing his Will (of which he himself was the main beneficiary) by murdering him. After serving a prison sentence, there did not appear to be any legal obstacle to prevent Palmer from claiming his inheritance. This was challenged in court by relatives (who were minor beneficiaries), but Palmer's claims were upheld by the judge on the basis that the formalities of the law in relation to the will had been satisfied. The decision by the judge was overturned by a majority decision in the court of appeal, depriving Palmer of his inheritance on the grounds that no one should profit from their own wrong doings. The main conflict in this case was between the

black-letter legal rules relating to the validity of Wills and legal inheritance and the unwritten principles of the common law.

In the light of the above example, it appears intuitively obvious, given the prevailing moral views on such cases that anyone who murders for profit thereby forfeits their right to the proceeds. That nobody would agree that a man convicted for armed robbery should keep the money which he had hidden before serving his sentence. However, the difference with Palmer, of course, is that he appeared to be legally, even if not morally, entitled to it (the inheritance). In fact, two judges did not find it intuitively obvious that he should forfeit the right to inherit, or at least not obvious enough to find against Palmer. One dissenting judge declared that it would be bad social policy to punish someone twice for the same crime. There had also been earlier cases similar enough to Riggs v. Palmer to be cited as precedent, in which apparently shocking judgments had not been appealed. In Owens v. Owens, for example, a widow convicted of being accessory before the fact to the murder of her husband was nonetheless granted entitlement to the legally specified portion of his estate.

In cases such as these, it is easy to appreciate the distinction between a positivistic conception of legal reasoning and procedural or formal justice on one hand and a naturalistic conception of legal reasoning and natural justice or moral justice on the other. This is a distinction, in a nutshell, between the school of natural law and legal positivism. It is unlikely however, given their standpoint on the necessary connection between law and morality, that any traditional natural lawyer adhering to the higher law would

countenance such a manifest injustice as awarding inheritance to Palmer or the widow in the above cases. In the context of the theory of natural law, good law is derived from moral precepts rather than a literalistic reading of the law. A decision for Palmer would be contrary to the requirements of good conscience, good faith and insight. But it is interesting to highlight in this regard (against legal positivism) that the ruling in favour of Palmer though would be repugnant in the eyes of natural law and morality, would not be legally invalid. This is to say that a natural law judge would have been more inclined to apply the principles of natural justice.

In the above case, the dissenting judge Gray justified his rejection of the appeal with the opinion that:

> The matter does not lie within the domain of conscience. We are bound by the rigid rules of law, which have been established by the legislator (which) has by its enactments prescribed exactly when and how wills may be made, altered, and revoked, and apparently, as it seems to me, when they have been fully complied with, has left no room for the exercise of an equitable jurisdiction by courts over such matters [Adams, 1992: 138].

Against Palmer in the appeal, judge Earl, acting on the principle of 'equitable construction' stated that:

> It was the intention of the lawmakers that the donees in a will should have the property given to them. But it could never have been their

> intention that a donee who murdered the testator to make the will operative should have any benefit under it [Adams, 1992: 136].

The doctrine underlying Earl's position goes beyond positivism, especially as implied by Dworkin (1986: 52, 101-108). For Hart, it is in cases like these where judges have genuinely free discretion to formulate an appropriate rule and create new law. For Hart therefore, the 'noble dream' of complete determinacy breaks down on cases like these, leaving judges to their own best devices. What this means is that the discretion they (the judges) exercise is a freedom to apply their own moral beliefs or values, rather than merely discretion to interpret the law in their own way. But in the thoroughgoing Dworkinian sense of positivism, there was a real solution to be discovered, rather than a workable decision to be taken. However, against such thoroughgoing positivism, the Aristotelian 'equity', the ability to individualize general principles of justice to a particular case, is apparently in the hands of the judges, not the legislators.

The decisive principle of common law in this case was the principle that no one should profit from their own wrongdoing. This is why the relevant rules did not prevail. For judge Earl:

> All laws, as well as contracts, may be controlled in their operation and effect by general, fundamental maxims of the common law. No one shall be permitted to profit by his own fraud, or to take advantage of his own wrong, or found any claim upon his own iniquity, or to acquire property by his own crime [Adams, 1992: 137].

In this regard, judge Earl believed that unless the principle he invoked were morally sound, it could not have become the embedded feature of the common law. Here, the relevance of morality to the question of justice and a wider conception of rationality is echoed. It is clearly echoed that a modicum of morality is requisite for a reasonable decision to be arrived at in cases that have moral overtones such as the ones cited. What this ultimately means is that morality is sometimes needed or that moral considerations are sometimes necessary to regulate the extents to which decisions which would be logically consistent and coherent with the provisions of the law may be allowed to suffice. To this extent, it is revealed that logic is insufficient to define rationality. That moral and emotive considerations may sometimes inform a rational decision, contrary to what logic can allow and thus meaning that rationality transcends logic.

Another example of a hard case is the historic Donoghue v. Stevenson (1932) case [Baker, 1991: 90]. This is a case that changed the course of English law on negligence. The salient facts of the case were that a customer in an ice cream parlour had bought her friend Mrs. Donoghue a bottle of ginger beer, the contents of which she had partially consumed before discovering the remains of a decomposed snail. On account of the distress and subsequent illness suffered, she sued the manufacturer Stevenson for compensation. Her first action failed, because the manufacturer was only legally liable to the person with whom he had a contract, the one who had actually purchased it. When the appeal was heard by the House of Lords, however, the decision went in her favour, by a majority of three to two. The important point established here was that there existed in law 'a general duty of care'. This was expressed by the 'neighbour principle' expounded

in Lord Atkin's ruling, according to which every person has a legal duty of care towards his neighbour, who is defined as anyone who it might reasonably be foreseen will be affected by that person's acts or omissions, not merely as those with whom one has a contract. This majority ruling was disputed by two judges, whose main arguments rested on the prediction of disastrous implications for the manufacturing industry.

The main issue here is whether this principle was already present in English law. The question is whether the prevailing opinion was a new departure, or whether it was a recognition of what was implicitly there. While generally in the context of positivism such land mark rulings quite clearly signal new departures, a Dworkinian interpretation is that positive law on this matter did indeed change in 1932, but that this change was superficial compared with the deeper continuity in terms of its emergence from earlier principles and rulings from which the neighbour principle was inferred. In the Dworkinian conception, the decision was already implicit in the law by virtue of the precedent from which the neighbour principle was inferred. However, it is clear that the completeness of the law that is upheld by legal positivism as illustrated by Dworkin, a completeness on which the supremacy of legal validity, basing on logical coherence and consistency within the law is founded, is mistaken and is not consistently tenable. Hard cases as illustrated above echo the limitation of logical consistency and coherence with regard to ensuring practical, reasonable and rational decisions in the law.

MacCormick (1978), however, uses the Donoghue case to undermine the one right answer thesis. He sees the legal disputes in such cases as distinguishable into two kinds

of disagreement, speculative and practical. He concedes to Dworkin that the principle recognized in Donoghue may well have been implicit in the law before 1932, by virtue of earlier decisions, and that disputes of this nature do not admit of an objectively right answer. Against Dworkin, however, he argues that once such speculative disagreement has been settled, one finds one self beyond that which can be reasoned out. One is confronted with a choice between what are often equally plausible alternatives. When all speculative disagreement is resolved, the practical question remains: which right do the courts, speaking for society, prefer to support? In the practical sense, there was no one right answer to which of the equally tenable rights (of the manufacturer's right of contract, or the customer's right to compensation) should be upheld. In the event, a narrow majority endorsed the neighbour principle and significantly changed the way of life. The matter was resolved by mixed considerations of public interest, corrective justice and common sense. The overall point here is that on this interpretation, while it might be true that there is in principle a right answer to the question about fitting precedent, the same cannot be said about the moral soundness of the adjudication between competing rights [MacCormick, 1978: 8-15, 108-251].

The problem of incommensurability has been raised against Dworkin by a number of critics including Mackie (1977), Finnis (George, 1992), MacCormick (1978) and Bix (1996). The general thrust of this criticism is that opposing rights cannot be weighed against each other, because there is no common standard by which to measure the respective value of, say, the rights based on contract and the right to compensation. It is a problem of finding a neutral standpoint from which to judge the competing claims. If the

situation is that one of the rights has to give way, then it is a matter of public policy for judges, legislature or society to decide which of the rights is to be preferred. Hard cases cannot be resolved by declaring which right 'scores' higher than another.

Finnis's criticism is quite different. As a natural lawyer, his quarrel is not with Dworkin's moral objectivism. Finnis argues that Dworkin's mistake is that he has failed to understand the real complexity of the tension between the technical requirements of law for providing the means for unequivocal dispute resolution, and its character as an instrument of justice. This failure, he argues, is reflected in Dworkin's theory of the relation between the dimensions of best fit and best light, which he assumes to be commensurable. According to Finnis, commitment to moral objectivism does not entail the one right answer thesis in law because looking for one right answer to a hard case is like looking for the single English novel which is both 'the funniest' and 'the best'. Similarly, one answer might provide the best fit, but another answer the soundest morally speaking. In other words, the scales of moral soundness and of fit are incommensurable, a fact which is obscured by Dworkin's assumption that the right answer can always be found on each scale with interpreting law in its best light by selecting the morally soundest from the range of those which fit the best. Dworkin's awareness of this problem is apparent from his change of strategy in his later writings. Moving away from the intuitively plausible argument in *Taking Rights Seriously*, that the right answer is the morally soundest with sufficient fit, to the vaguer argument in *Law's Empire*, that it is only a question of striking the right balance, he implicitly admits that the problem is not easily solved.

From the foregoing, there is the possibility of two extremes. On the one hand is the possibility of regarding the law as wildly arbitrary and unpredictable, and on the other hand the law may be regarded as a fully explicable, wholly determinate and certain process. On the one hand, one can see that in spite of pretensions to the contrary, judges make the law they apply to litigants and are not impartial objective declarers of existing law. That in contrast to the surface appearance of impartiality, the judge is in reality a legislator, indistinguishable from a politician. This is contrary to the popular expectation of litigants or defendants that judges apply the existing law even handedly, rather than to have new law made for every occasion. On the other extreme is the position that judges never determine what the law shall be. In this case, judges are confined to saying what they believe the law consisted in before their decision, which is the mere application of it. This latter extreme basically represents the thinking underlying legal positivism.

By extension, it is notable (following from the implications of Dworkin) that the very fundamental assumption of completeness, sufficiency and determinacy upheld by legal positivism is consistent with the latter extreme of the conception of legal reasoning. This conception of legal reasoning is theoretically justified in the light of logic. This is because legal decisions in this regard are determined by the force of logical requirements that the facts of the case be fitted in the system of the legal provisions such that the ultimate decision is characterized and dictated by the impersonal and impartial dictates as envisioned and envisaged in the relevant legal system and legal provisions. This provides for very rigid deductive and inductive reasoning which cannot be reconciled with the

wider conception of rationality and justice that calls for relative flexibility dictated by the uniqueness of some events, uniqueness that could not have been envisioned in the law and therefore not envisaged in the law.

However, the other extreme of regarding the law and legal reasoning as wildly arbitrary and unpredictable, suggests an 'anarchistic' and relativistic conception of rationality. Put in other words, such a conception of legal reasoning would only be justified on account of an 'anarchistic' conception of rationality. But such an absolute indeterminacy is also not consistently tenable as sufficiently accounting for rationality according to this thesis and in the light of a consistently tenable conception of legal reasoning in the realm of natural law theory. Rationality, as overally argued in the first, second and third chapters, requires a modicum of determinacy and consistency of position, a starting point which is echoed throughout the process of reasoning and reflected at the end. However, the determinacy and consistency is limited to the elimination of internal contradictions. The only evil in this regard is the denial of a varied manifestation of such a starting point and a rigid maintenance of the same, regardless of the changing and varying circumstances. Thus, this extreme view of legal reasoning as wildly arbitrary and unpredictable leads to an anarchistic conception of rationality which is not tenable in the light of the wider conception of rationality (as discussed in the first, second, third and fourth chapter).

The cardinal point to be noted with regard to the two extremes of conceiving the law and legal reasoning (either as wildly arbitrary and unpredictable or as fully explicable, wholly determinate and certain) is that neither of the two is appropriate or accurate in the light of

the more accurate and comprehensive conception of rationality (the wider conception) as discussed in this study. However, legal positivism essentially rests on and assumes one of these extremes, the conception of the law and legal reasoning as fully explicable wholly determinate and certain, as echoed by Dworkin. But this conception as already shown is erroneous especially in the light of an insight into hard cases as eluded in the preceding examples.

On the other hand, the school of natural law may be misconceived and misinterpreted as implying or tending towards the other extreme of conceiving the law and legal reasoning as wildly arbitrary and unpredictable, following from the epistemological difficulty of discovering the law (which has the unfortunate loophole for relativism and the absurdity of solipsism). This is because the epistemological problem may be perceived to lead to relativism, which implies 'anarchism' or an anarchistic conception of rationality. Hence the untenability of such a conception as well.

Setting aside legal positivism on the basis of its weak and unsustainable foundation (the strive for systematization and systematicity to the extent of guaranteeing and enhancing accurate inductive and deductive legal conclusions with the hope that such conclusions, decisions or judgment would also be appropriate from the practical point of view) and also setting aside natural law theory on the interpretation that implies that the law and legal reasoning are wildly arbitrary and unpredictable, the question arises as to which school of thought is the more consistently tenable.

The answer to the above question according to this thesis is that natural law theory is the more consistent candidate in the light of the wider conception of rationality. However, natural law theory is not to be interpreted as leading to the anarchistic conception of rationality. Natural law theory is in this regard to be interpreted as reconciled and therefore in harmony with the wider conception of rationality. What this means is that there is a starting point that is clear and distinct. This clear and distinct starting point is the law and all the legal provisions as articulated by authority. However, this law or the legal provisions are applied to particular cases with a distinct emphasis and consideration of the unique circumstances of the relevant case. The legal decision, conclusion or judgment therefore is in this case made on the basis of either a proximate or remote prescription of the law or the relevant legal provisions but not in absolute terms. In this case, it is ensured that the evils of conceiving the law as wildly arbitrary and unpredictable or as fully explicable are avoided [cf Sunstein, 1996: 6, 36, 50]. This is because:

(i) There is a starting point, a frame of reference, remote or proximate, which is clear and distinct, which is the law or the legal provisions.

(ii) This clear and distinct starting point or frame of reference is applied in such a way that is flexible to the extent of capturing the greatest possible number of situations or possibilities.

(iii) There is an appreciation of the fallibility and finitude of human foresight, prediction and imagination such that hard cases can also be resolved in a manner that does not imply wild arbitrariness, but reflect a recognition of a lack of complete systematicity, complete sufficiency or full explicability of the law.

It is the argument of this thesis that a combination of statutes and precedents on one hand and such constitutional provisions as prerogative powers (or executive powers or orders) of the sovereign manifested in powers of commutation and presidential pardon (as for instance in the case of Kenya and the USA) on the other is a clear and outstanding safeguard against the two extremes, wild arbitrariness and unpredictability on one hand and complete or full explicability of the law, and, by extension, legal reasoning (at least in the context of legal positivism) on the other.

The preceding means that fundamentally, legal positivism in itself and on its own is inconsistent with the nature of human social life. That applied consistently in reality, it is insufficient and inappropriate as a school of thought in the light of a wider conception of rationality. This is because legal positivism is founded, informed and thrives on the ideals of logic (systematicity, completeness of system, consistency of reality, impersonality and absolute objectivity and therefore complete predictability, innocence of the possibility of the evolution or change of morality) which ideals cannot be harmonized or reconciled with the ideals of the wider conception of rationality (the appreciation of the possibility of the lack of systematicity in reality, the possibility of incompleteness of

any system, the possibility of inconsistency of reality, the relative impossibility of complete impersonality and absolute objectivity in the context of human beings and, therefore, the recognition of the dream or myth of complete predictability).

The foregoing has a backing with regard to especially the principle of equity and as already noted, the prerogative powers of the sovereign. The principle of equity has its foundation in the natural law theory and is incompatible with the rigidity within legal positivism. For instance, Aristotle (1924), who was writing both about the ideas of law and justice as such and also about the realities of justice in the highly evolved legal system of ancient Athens recognized the problems created by the systematization of 'justice'. While the strict application of general rules furthers the cause of judicial impartiality, its inflexibility does little for the adaptation of justice to individual cases which do not fall easily under such rules. To counter the danger of 'justice' (legal justice, formal justice or procedural justice) becoming over-severe, Aristotle introduced the concept of equity, which he regarded as a quality intimately connected with, but distinct from and more precise than, 'justice'. The equitable approach in law, for Aristotle, is aimed at the prevention of the unfortunate consequences of applying a general rule to a particular case which it does not, at a deep moral level, really cover [Aristotle, 1924: 1.18.2]. The point is that while it is right in general that rule X should be applied, it does not really apply to this particular case Y, despite the formal requirements being fulfilled. For Aristotle then, the function of the appeal to equity was to allow judges to temper the severity of legal justice.

It is the idea of equity as a quality integral to law, rather than its place in the history of legal doctrine and practice, which is significant to disputes in the philosophy of law. It is not however the chequered history of its evolution, through Roman law and English common law, as the defining purpose of a higher court presided over by the Roman *praetor* or English Lord Chancellor, rendering 'equitable relief' to the victims of harsh justice in the lower courts, which is to be recounted here. What is to be emphasized is the particular importance of the role of conscience. The rationale behind the Chancellor's judicial intervention was to annul specific decisions, the outcome of which was unconscionable, or contrary to conscience. But as Tebbit cautions:

> If the spirit of equity is captured by the idea of an *ad hoc* overruling of an unconscionable, in what does an 'equitable solution' consist? Does it imply that the equitable judge-for the specific purpose of this one case - casts aside the law in favour of a morally preferable standard? Or can this individualization of justice be found within the ambit of law? This will ultimately depend, of course, on how we are to understand the concept of law. Does it exclusively consist in the explicit rules of 'black-letter law' as posited by a valid legal authority, or should it be taken in a wider sense to include the notoriously vague but irrepressible idea of 'the spirit of the law'? Those who are tempted to endorse the latter without further ceremony should bear in mind the conceptual problems here. 'Spirit' can be identified either with the justice with which the law is expected to be infused, or with the spirit of equity, which is to say that it can be contrasted either with a system of law which is indifferent to the requirements of justice, or with a rule-obsessed conception of justice which produces a repressively literalistic

> legal system. These are clearly two quite different senses in which 'the spirit of the law' can be interpreted [Tebbit, 2000: 9-10].

To that extent, legal positivism on its own and in itself (without being complemented with the principle of equity on the basis of which prerogative powers can be justified and hard cases decided) is insufficient in the light of a wider conception of rationality. This is to a significant extent because of the exclusion of moral and emotional considerations from the theoretical construct of legal positivism, considerations which are argued in this thesis to constitute part of the building blocks of the edifice of rationality in the wider, more comprehensive sense. The doctrine of prerogative powers is usually a constitutional provision which in theory cannot be said to be invariably consistent with legal positivism due to the flexibility that informs it and the rigidity that is dictated by and informs legal positivism. In fact, for Locke, prerogative powers include the power to act without the prescription of the law or even against it by a legitimate sovereign so long as such action is in good faith and the spirit imbibed is the common good. This means that the principle of equity and the doctrine of prerogative powers can only be sustained and therefore justified in the context of the theory of natural law and not legal positivism. Thus, the necessity of the principle of equity and the doctrine of prerogative powers for the guarantee of rationality in the wider sense reiterates the insufficiency of legal positivism and the supremacy of the theory of natural law.

The preceding arguments are grounded in the light of the comments and arguments on legal reasoning as postulated by Lloyd (1981: 284-299), Sunstein (1996: 3-34), Teays (1996: 316-371, 412-413), Greenawalt (1992: 45-47, 70-74, 100-202), Olivecrona (1971:

261-265), Kekes (1976: 114-133), Nyasani (2001: 93-96) among others already cited or quoted in this chapter and the earlier chapters. Sunstein is particularly outstanding for purposes of sustaining the position that to the extent that legal positivism assumes the ideals of logic, it cannot measure to the expectations of rationality conceived in the wider sense. That logic therefore is to be relegated to a secondary function in legal reasoning (that of ensuring internal coherence and consistency assuming the sufficiency and completeness of the relevant system, an assumption that is shown in the second and third chapter to be wanting).

From Sunstein's (1996: 17) point of view, it should be appreciated that the logical ideals which legal positivism assumes are not applicable in real life situations. This is shown by the need to adjust the general rule to either capture or be in harmony with the practical dictates of a particular case or to adjust the perception of the particular case such that the particular case could be understood to be incompatible with the framework of the general rule such that another general rule or rules would have to be instituted. Analogical reasoning in precedents where similarities and dissimilarities are usually sought by the defense and the prosecution in order to support the desired conclusion is a good example of how views about a particular case may vary or may be selectively presented so that the particular case may be seen to fall under a certain general rule or not so that the intended conclusion could be adopted. The fact that two contradicting or competing positions may be convincingly and accurately (from the point of view of logic) argued with equal logical strength (as in the case of precedents) indicates that the rationality of a legal

decision could not be sufficiently explained in terms of logical consistency and coherence only (as implied in legal positivism). That the rationality goes beyond logic.

Kekes (1976: 114-133) indicates that while rationality is tied to logic to the extent that internal coherence and consistency (which is guaranteed by logic) is imperative for rationality to be observed (a position held by this thesis with regard to the wider conception of rationality as derived in chapter two and three), conformity to logical rules is not sufficient for rationality. When this position is related to legal positivism and legal reasoning, it follows that logical consistency within the provisions of the law and the reaching of a legal decision or conclusion on the basis of such logical consistency and coherence within the law does not (in reality) invariably satisfy the criteria of rationality in the wider, more comprehensive sense.

However (and this is imperative to note at this point), legal positivism (as especially illustrated by Dworkin and echoed by Kelsen) operates on the assumption that judgments, conclusions or decisions arrived at on the basis of logical coherence and consistency within the law or legal provisions are rational or that it is rational that that be the case. Such an assumption (as it is to be appreciated in the light of what has been derived to constitute the wider and more comprehensive conception of rationality) is defective and inappropriate. Such an assumption rests on a narrower positivistic and criterial conception of rationality. The alternative for grounding legal positivism on such a narrower conception of rationality is a denial of rationality to legal positivism all together (i.e., expose the contention that legal positivists or legal positivism as such has never

proclaimed any claim to rationality at all anyway). Either way, these are both undesirable, if not absurd conclusions, but the inevitable theoretical implications and consequences of legal positivism. It simply (legal positivism) cannot be reconciled, harmonized or fitted into the wider conception of rationality due to its assumption of the ideals of logic.

Kekes argues that the temptation to account for rationality entirely in formal terms (which is what positivism in general and legal positivism by extension does [cf. Dworkin (1986: 52), Hidebrand (1960: 4), Fish (1989: 133), Raz (1994: Ch. 10), Raz (1979)]) requires the postulation of some criteria (which positivism does in form of the verification or verifiability principle, or falsifiability according to Popper, and in the case of legal positivism, conformity, coherence and consistency with the legal provisions or the law which is assumed to be complete and thus completely predictable i.e., legal validity). But Kekes argues that that would amount to treating rationality much like validity which is a timeless property of arguments. Kekes cautions that if the theory of rationality were entirely formal in the sense alluded, then the nature of the situation would have as little relevance to judgments of rationality as the content of propositions has to the validity of the arguments of which they form part. However, Kekes maintains that the preceding notwithstanding, it ought to be recognized that a belief or theory may be rational in one situation and fail to be rational in another.

Kekes echoes the minimum for an accurate theory of rationality. Two features are presented in this regard and these are:

(i) A better way of getting on in the world

(ii) A better chance of ensuring the truth or of corresponding to what there is.

Basing on these requirements for a more accurate and comprehensive conception of rationality as reflected by Kekes, it is to be noted that first, logical positivism and legal positivism do not invarianbly satisfy the first requirement. It is in this failure (as is argued in this chapter), that there is need for complementing the provisions of the law with such constitutional provisions such as the principle of equity and the doctrine of prerogative or executive powers. Ideally, this is to guarantee that legal and constitutional provisions envision and envisage justice in the wider and more ultimate sense (as echoed in the theory of natural law). The second point to note is that positivism in general and legal positivism in particular do not in theory guarantee the satisfaction of the second requirement, that of enhancing and guaranteeing truth. This is because legal positivism, resting on the ideals of logic and therefore only guaranteeing internal coherence and consistency implies that legal decisions, judgments or conclusions be evaluated only in terms of legal validity, a concept which is indifferent and has nothing to do with the truth as such. This setback and anomaly in the theoretical conception of legal positivism and positivism in general is in fact in practice illustrated by the celebrated requirement that the jury, judges or magistrates (as the case may be) draw their conclusion or base their decisions strictly and only on the evidence adduced before the court. This is in total

disregard of what they may in person and in their minds and conscience know to be true. It is in this breath that it has been said that:

> If a witness is prepared to swear that black is white and no evidence to the contrary is offered, the evidence before the court is that black is white, and the court must decide accordingly. The judge and the jury may think otherwise – they may have even private knowledge to the contrary – but they have to decide according to the evidence [Latta, 1956: 305].

The preceding quotation serves to illustrate the absolute impartiality, absolute objectivity and impersonal status that legal positivism strives to achieve, that which constitutes its ideal. But it is the argument of this thesis that it is that ideal, grounded on logic, that ultimately renders legal positivism irreconcilable with rationality in the wider sense. This is because as such, legal positivism fails in reality to invariably guarantee the attainment of the important feature, truth, by only emphasizing validity and such objectivity and impartiality as ensues therefrom. Logic cannot even in theory or in principle guarantee the truth of conclusions, a phenomenon which renders any theoretical formulation which is based on it (logic and the subsequent positivistic conception of rationality) irreconcilable with the wider conception of rationality. To appreciate this contention is the assertion that:

> Logic cannot guarantee useful or even true propositions dealing with matters of fact, any more than the cutler will issue a guarantee with the surgeon's knife he manufacturers that operations performed with it will be successful. However, in offering tribute to the great surgeon we must not fail to give proper due to the quality of the knife he wields. So, a logical method which refines and perfects intellectual tools can never be a substitute for the great masters who wield them: nonetheless it is true that perfect tools are part of the necessary conditions for mastery [Cohen, 1963: 23].

It is in this regard that Toulmin (1964: 169-170, 184) says that logical considerations can only reliably serve as preliminary formalities of argument stating, that the arguments we encounter are set out at a given time and in a given situation, and when we come to assess them, they have to be judged against this background. Toulmin further says that:

> ... People with intellectual capital invested in them should retain no illusions about the extent of their relevance to practical arguments. If logic is to remain mathematical, it will remain purely mathematical; and when applied to the establishment of practical conclusions it will be able to concern itself solely with questions of internal consistency [Toulmin, 1964: 185].

It is also in the same line of thinking that Mill (1956: 2, 4) says that:

> Even in ordinary conversation, the ideas connected with the word logic include at least precision of language ... and we perhaps often hear persons speak of a logical arrangement, or of expressions logically

> defined, than of conclusions logically deduced from premises. Again, a man is often called a great logician, or a man of powerful logic, not for the accuracy of his deductions, but for the extent of his command over premises.
>
> With the original data, or ultimate premises of our knowledge: with their number or nature, the mode in which they are obtained, or the test by which they may be distinguished; logic, in a direct way at least, has, in the sense in which I conceive the science, nothing to do. These questions are partly not a subject of science at all, partly that of a very different science.

Logic does not teach that any particular fact proves any other, but points out to what conditions all facts must conform, in order that they may prove other facts. To decide whether any given fact fulfils these conditions or whether facts can be found which fulfill them in a given case, belong exclusively to the particular art or science, or to our knowledge of the particular subject. Logic, however, is not the same thing with knowledge, though the field of logic is co-extensive with the field of knowledge. Logic is the common judge and arbiter of all particular investigations. It does not undertake to find evidence, but to determine whether it has been found. Logic neither observes, nor invents, nor discovers, but 'judges' [Mill, 1956: 3-5].

Although it is noble that judges base their decisions strictly on the evidence adduced before the court because this ensures impartiality and objectivity (thus emphasizing validity and objectivity at the subsequent downplaying of the truth), this, in effect, implies a contradiction to the extent that all said and done, the law ought to strive to

unearth and postulate 'the good' and 'right' both of which are founded on the real truth. No matter how illusive these ideals may appear to be, no theoretical framework can be justified to disregard these ideals in essence and at the same time purport to be rational in any sustainable way. That cannot be justified merely for convenience sake or for the sake of simplicity or efficiency. Such a disregard implies a serious self contradiction and inconsistency to the extent that what is initially sought as the ideal is 'the good' and 'right' on the basis of truth but in the same context the truth (not as mere coherence and pragmatism but correspondence as well) is disregarded for the sake of objectivity and formal consistency. It is in line with this concern that it has been said that:

> Law and right can and must always be sought for less in the detailed rules of the laws than in their foundation, that is, in the intrinsic nature of things, which is the perennial and inexhaustible source. It is in this philosophical orientation that the superiority of Roman jurisprudence lies as compared with the modern positivist schools [Vecchio, 1952:73].

In fact, the caution is more emphatic and categorical in the contention that:

> Those who are deemed great justices have not been those clever dickerers who with exegetical wizardry, made patchwork solutions from the decisions of the past [Maguire, 1980: 121].

The preceding is the case because legal reasoning understood in the positivistic sense is essentially debaters reasoning and debaters reasoning cannot solve fundamental clashes

of value or difficult empirical questions. This is because legal reasoning construed as such does not equip lawyers with the tools they need to understand the social consequences of law [Posner, 1993: 45].

As has been reckoned, truth cannot be guaranteed by mere validity. However, legal positivism has validity as its guiding principle. The implication is that the questions that are asked in this regard are "is the behavior or act legally valid?" "Is the decision legally valid?" As opposed to "is that the truth?" "Is it right in itself?" "Is it good in itself independent of the legal framework?" But it is to be noted that:

> Justice will never be fully captured in the crust of words. Particular laws are always approximations and unprofitable servants of justice. There is need in society for the 'living intellect' to press beyond imperfect formulations to the sources of meaning [Maguire, 1980: 121].

It is in the preceding regard that it has also been said that:

> Every decision is a choice between different rules which logically fit all past decisions but logically dictate conflicting results in the instant case. Logic provides the springboard but it does not guarantee the success of any particular dive [Brewer, 1996: 932].

Thus far, it can be seen that logic cannot guarantee the truth of propositions or conclusions. The only thing that logic can do is to enhance the validity and cogency of

arguments. The greatest approximation to truth, a necessary consideration for rationality at least as postulated by Kekes and upheld in this thesis, unfortunately escapes the reach of the jurisdiction of logic. This can be appreciated in the light of the conception of logic as a theory of consequence relations of valid inference. This means that the domain, competence and authority of logic merely rest in implication and not truth. Logic is only an instrument that can be used to reach the truth but it cannot guarantee that truth would be reached. This is illustrated in the fact that an argument may be valid though made up of false premises that give rise to a false conclusion. The success of the endeavour to reach the truth cannot be confined to nor guaranteed by logic. To this extent, logic fails as a sufficient model for the determination of rationality.

Regarding the relative indeterminacy of the law that is manifest in legal reasoning, Greenawalt [1992: 45] says "The law is never determinate because relevant facts – facts about the usage of language or social convention – are uncertain". This contention is significant especially in the light of the second feature about the imperatives of rationality, the requirement of the truth or correspondence with reality as alluded by Kekes (1976: 118). Greenawalt intimates that it is an obvious fact that the facts conceded by both parties in negotiation or determined in judicial proceedings sometimes vary from what actually occurred. That for any case, the likelihood of the facts being correctly found is less than 100 percent. In this regard he says that:

> That the legal system often fails to yield correct results because the basic facts are not reliably discovered is a highly significant truth, and the study of pitfalls that lie between events as they happen and a

> corresponding legal determination to that effect is important. That more fully developed facts can alter the legal conclusion that seems appropriate is also significant [Greenawalt 1976: 46].

He says further that the only test for truth is how well an asserted proposition coheres with other propositions that are accepted. That furthermore, the meaning of assertions of truth amounts to no more than claims about coherence with other beliefs. But it is very important to interject at this point to evaluate such a contention with regard to facts and truth in the light of the significance of the same in the context of an accurate conception of rationality.

If coherence is the ultimate consideration, this implies that logical consistency is the ultimate consideration. However, the truth of the relevant propositions cannot be an irrelevant matter such that it is mere coherence that carries the day. This is not to say that the coherence of the propositions is not important or that it is less important, but that the factual status of the relevant propositions, the truth-value of such proposition, is an equally, if not more important, consideration for the whole edifice to pass as rational. It is in this regard that it is emphasized that:

> In life, the inferential acquisition of knowledge requires the cultivation of both sound intuitive and inferential proces es, it being an important insight that we reach truth either by intuition or by inference and predominantly, by a combination of both processes. A valid inferential process does not necessarily bring us to further truth unless the evidence we believe in is true also.

> Competence, of course, includes being properly informed in each and every context in which we presume to reason. To arrive at true conclusions, one must have sound and accurate information to begin with. Further, this information cannot be properly subjected to an inferential process, unless it is well formulated [Bastable, 1975: 325].

Thus, the suitability of a conclusion in practical life is not just its consistency or a matter of mere coherence with what is already provided but that it is a genuine candidate solution whose backing would have to be evaluated [Toulmin, 1964: 170].

But from Greenawalt's contention, and as is the case generally in legal positivism, coherence and consistency within the law and within the legal provisions is what ultimately caries the day. Although requirements such as oath taking before testifying are understood to ensure in the beginning that the truth is upheld, what eventually happens (and this is by virtue of a biased emphasis on coherence and consistency) is that if a lie or lies are consistently told in a coherent manner, then the court or the judge has no option but to decide according to the "facts" so long as no contrary evidence is presented before the court. In line with this defect is the contention that:

> ... correctness of legal statements always means correctness with regard to a system of rules and common valuations. We can therefore speak of correctness only in a relative sense. Outside the system of rules and the common valuations there is no ground for ascertaining the correctness of legal statements. Correctness is correctness for people living within a working legal system accepting certain fundamental valuations [Olivecrona, 1971: 261].

This means that truth and correctness are relative to the relevant system in the sense that they are defined by the system. This taken to its philosophical conclusion means that the system imposes reality or defines reality, not that the reality imposes itself on to the system. In other words, the relevant legal system envisions the reality through its own spectacles (in the pre-selection of "the relevant facts"). The implication is that the "reality" that is addressed by the system is artificial and formal rather than real, natural and concrete. This is illustrated in Hart's *Definition and theory in jurisprudence* as quoted by Olivecrona (1971: 262) thus:

> The great anomaly of legal language is our inability to define its crucial words in terms of ordinary factual counterparts. The primary function of these words is not to stand for or describe anything; they have a distinct function. They cannot be defined in the sense that a synonym is provided for them. An 'explanatory definition' is needed.

But against the background of the preceding quotation, it needs to be clarified that:

> The correspondence between material facts and the operative facts of legal rules depends upon the authenticity of the material facts themselves. If the view which the court takes of the total setting of a case is mistaken – or downright wrong – then the rationality of its decision is impaired. The decision is then based on a hypothetical situation which exists only in the mind of the court. Obviously a defective mode of proof can impair the rationality of an inference by falsifying the actual circumstances of the case.

> The word 'fact', here as always, is treacherous, involving the old confusion between the actual situation and the description of it; the situation is given, but not the 'facts of the situation'; to state the facts is to analyse and interpret the situation. And just this is the characteristic difficulty of actual practical decisions, which disappears in the textbook cases, where the 'relevant facts' are pre-selected [Gottlied, 1968: 53, 58].

Olivecrona (1971: 265) however appreciates the significance of truth and emphasizes that the distinction between truth and correctness is of vital importance. That in asserting the truth of a statement, it is presupposed that the statement refers to something, which is what it is, regardless of the language used about it by human beings. Therefore, ascertaining the truth of the statement does not imply ascertaining that some special terminology is being used about the object.

It is thus to be appreciated and noted that legal reasoning construed in the context of legal positivism does not theoretically have a basis to guarantee the upholding of truth and a better way to go about in life, prerequisites (according to Kekes (1976)) for a comprehensive account of rationality. These prerequisites are envisioned and envisaged in the wider conception of rationality as derived and discussed in chapter one, two, three, and now this chapter.

In this context, the inadequacy or insufficiency of legal positivism as compared to the theory of natural law rests on the exposition that legal positivism is founded on the ideals of logic which include (as already discussed):

(i) The assumption of completeness of system.

(ii) Completeness of definition of the relevant concepts (i.e., fixed concepts in terms of meaning and use or application)

(iii) Systematization and systematicity of reality

(iv) Consistency or uniformity of reality

(v) Complete impersonality and absolute objectivity

(vi) Absolute predictability

These ideals are echoed in positivism as a school of thought (discussed at length in chapter one) and the narrower, scientistic conception of rationality. However, it is important to emphasize as well at this point (as already discussed in this chapter and the earlier chapters) that such assumptions do not reconcile with the nature of reality, particularly social reality in the context of human behavior and social life in general. Such assumptions may hold 'accurately' only in the context of reality in the realm of natural sciences or physical nature in general but not human behavior or social life. This is because such assumptions informed by logical thinking and dictated by the same would erroneously imply that human behavior is completely consistent, predictable and, in that regard, static.

It does not need to be overemphasized however that human behavior (in terms of socio-cultural predispositions) is relatively dynamic and unpredictable. This is illustrated in terms of the open texture of language and the dynamism in the predominating doctrines that act as impetus for 'progress and development' in respective social units and

historical epochs. The relatively dynamic and unpredictable nature of human social life is also explained here in terms of the relative finitude and fallibility of man in terms of his Being and knowledge.

However, such assumptions are not to be misunderstood to have no place *simpliciter* (absolutely) in this thesis and in the conception of rationality and how logic relates to it. Rather, the thesis constitutes the position that positivism in general and legal positivism in particular rest on an overstatement of the significance of logic in the conception and definition of rationality. This is to the extent that the assumptions upon which legal positivism rests invariably 'hold' in the realm of natural science but not human social life. That legal positivism, resting on the strength of the ideals of logic, implies a narrower scientistic and unsustainable conception of rationality (at least in the context of human social life). This is because, following from the first, second, third, and now this chapter, positivism and legal positivism are based on an extension of what is construed to constitute rationality in science to constitute rationality in general (including rationality in the context of the dynamic and emotional human behavior and human social life).

This leads to the conclusion that logic is imperative but has a secondary role in the sense that it merely enhances and guarantees internal coherence and consistency in a system or structure. But equally important (according to this study) is the construction or constitution of the relevant structure be it legal or otherwise. This is to mean that which proposition(s) to adopt (and in this case, which legal provisions to adopt) in the light of good conscience, good faith and insight, is the equally big challenge. However, the

propositions or legal provisions adopted have to manifest a modicum of coherence and consistency with each other and it is in this latter or second requirement that logic becomes imperative. Also, the well-formulated legal provisions and their consistency not withstanding, the application and applicability of such formulations has to be dictated by concrete considerations, considerations that might not have been foreseen and envisaged in the system. It is only in this way that legal reasoning can satisfy the demands of rationality in the wider sense. But as has already been shown, legal positivism essentially fails in this demand while the theory of natural law essentially meets the demand.

It therefore follows that a rational edifice is that which is based on, first, the appropriate propositions (or legal provisions in this case) as dictated by good conscience, good faith and insight. Second, such propositions or provisions are to be coherent and consistent with each other or among themselves (the first and second requirements constitute the system). Third, the application and applicability of the well-formulated, internally coherent and consistent provisions (the system) is to be dictated by considerations within or without the system (i.e., considerations which may have been envisioned and therefore envisaged in the system or considerations which may not have been envisioned and therefore not envisaged in the system, but dictate, on their own merit as they unfold, to be considered). In a nutshell, three conditions are requisite:

(i) The adoption of appropriate propositions or provisions. This is where the questions of 'the good', 'right' and 'truth' are addressed on the basis of good

conscience, good faith and insight. These constitute the building blocks of the system or structure. This is the deliberative level.

(ii) The coherence and consistency of the propositions or provisions among themselves or within the system or structure. This is the executive level because of the necessity dictated thereat. It is at this level that logic is imperative or reigns.

(iii) The application of the propositions or provisions on the basis of considerations within or without the system depending on the empirical reality as it presents itself and in the light, again, of good conscience, good faith and insight. This is the discretional level. This is the level that the thesis argues to epitomize the edifice of rationality.

The three levels constitute (as argued) the edifice of rationality and expose the role of logic or the place of logic.

However, positivism as a school of thought in general and legal positivism in particular construe or conceptualize rationality at the second level, hence the insufficiency or inadequacy of positivism and legal positivism by extension as consistently tenable schools of thought. This is illustrated in for instance, the rejection of metaphysics by positivism without the realization that positivism itself can only hold on the basis of metaphysical justification. In the case of legal positivism, the point is illustrated in the

need to supplement the actual legal provisions (statutes and precedents) with such constitutional provisions as the principle of equity and prerogative or executive powers (to infuse the aspect of good conscience, good faith and insight) in the event that legal or procedural justice is not in line with moral justice or natural justice (at least in the eyes of the general public and in the eyes of the sovereign). This provides room for the discretion and flexibility that is not envisioned and envisaged in the conception of legal reasoning in the realm of legal positivism. It is this flexibility infused by such constitutional provisions and the discretionary powers expected of and extended to judges in the framework of the theory of natural law that would elevate the practice of law and the influence of the sovereign in that regard to the level where the arrangement (legal and constitutional provisions) meets the rationality criteria as derived in this thesis.

There is thus exposed the inbuilt problem of legal positivism. This problem is manifested in the fact that legal positivism rests on the ideals of logic and at the same time it is set to achieve objectives (justice and rationality) that cannot be invariably reconciled with and achieved on the basis of such ideals and assumptions.

It has also been shown that legal positivism also fails to a significant extent due to "the separation thesis". That legal positivism separates the law from morality whereas a minimum of moral considerations is requisite for rationality. Rationality is a natural feature of man and social life has to be informed by a minimum of morality (i.e. man is a rational being and he/she can only exist sustainably in a social context that is regulated by morality). In this regard, morality and rationality cannot in principle be separated

sipliciter (absolutely). In other words moral considerations are an aspect of the edifice of rationality though concretized *secundum quid* (with qualification or relatively so). Therefore, positivism in general and legal positivism in particular, founded solely on an absolutely objective, impersonal and scientistic plane (logic) which essentially excludes morality and emotions, imply the narrower conception of rationality (if not irrationality). It is in this context that (to a large extent) logic and (by extension) legal positivism fails to sufficiently exhibit rationality in the wider and more comprehensive sense.

It is also in this sense that logic is to be appropriately construed to be imperative to rationality but only to the extent of ensuring internal consistency and coherence. That other considerations that partly determine rationality fall outside the realm of logic. That positivism in general and legal positivism in particular erroneously equate logic with rationality and thereby occasionally lead to injustice and irrationality. This study thus, among its other justifications and significance, exposes the intrinsic relationship between justice (in the deeper sense) and rationality (in the wider sense).

THE ONTOLOGICAL AND COGNITIVE SIGNIFICANCE OF LOGIC AND THE RELEVANCE OF SUCH SIGNIFICANCE TO RATIONALITY

In the history of philosophy, simplicity was viewed as an ontological feature of the world. As it was maintained that "Nature abhors a vacuum" and that "In nature there is an explanation for everything" so was it believed that "Nature abhors complexity". The "Copernican Revolution" of Kant moved these kinds of beliefs from physical nature to the human intellect. Simplicity accordingly became, not just a feature of "the real world", but rather one of "the mechanisms of human thought". In this Kantian scheme then, what was at issue was a facet not of the teleology of nature, but of the teleology of reason [Kant (1965: 58, 94-100, 305-307, 630-666), Russell (1994: 372-374), Rescher (1979: 117)].

But it is important that it be appreciated that what ultimately counts as evidence for the ontological systematicity in the world is not merely and simply that the account of it is systematic, but rather how it is systematic – i.e. what sort of systematic world-picture it envisages. It is therefore a matter of content and not structure. This is why Rescher (1979: 119) says that:

> One need not prejudge that the world is a system to set about the enterprise of striving to know it systematically. The finding of ontological systematicity (orderliness, lawfulness) in nature – to whatever extent that nature is systematic – is a substantive product of

> systematizing inquiry, rather than a needed input or presupposition for it.

In this case, the foundation upon which the celebration of scientism rests (logic and systematicity) is seen to be a biased (or prejudged) accounting for the universe. Since it is this foundation which is the impetus for extending the model of defining rationality from science to the definition of rationality in general, there is ground enough as so far adduced to question the extension of rationality in science to rationality in general. In fact, it is opportune to appreciate how then a scientistic conception of rationality based on logic cannot be reconciled with the contention that emotionality (contrary to popular belief) need not necessarily be perceived as if it were a negation of rationality (as shown in the second chapter).

It is against this background that Boelen (1971: 2-3) says that:

> It is logical to regard that which is basically mysterious and undefinable as logically irrelevant. But it is highly illogical to claim that such phenomena are absolutely irrelevant, that whatever transcends reason offends reason. This claim mistakes the contradictory for the contrary. Moreover, this claim does not follow from any of the primary premises of logic. These principles ... presuppose extensive universality rather than comprehensive universality, determinism rather than freedom, and underlie our dealings with the material universe rather than our understanding of the totality of all that is .... This attitude on the part of either formal or symbolic logic implies the assumption that any

> possible kind of thinking other than Logic is *ipso facto* faulty. And this means, of course, that logic is the only legitimate way of thinking. But since such a claim, as we just have indicated, cannot be validated by logic itself, it must be based on an irrational dogma. The assertion that whatever transcends Logic is irrational is based on rationalism or the dogma of the ultimacy of correct deductive and inductive thinking.

Boelen goes further and alludes that logic is inadequate as an instrument to begin philosophy, but not the impossibility of the beginning of philosophy. For him, the beginning of philosophy may be basically mysterious, and may require an expanded kind of reason, which differs from logic, which is broader and deeper in scope and leaves room for paradox and mystery. Such a reason, however, would transcend logic but not offend it. And it would not be illogical to begin with mystery.

In the light of the preceding contention, Boelen's position with regard to the relevance of logic to philosophy echoes the much wider, more comprehensive and so far, more plausibly accurate conception of rationality. Such a conception is what has so far been derived in this thesis. It is this conception of rationality that envisions the difficulties of adopting the positivistic scientistic conception of rationality (which conflates logicality with rationality), the predominantly western conception of rationality. This wider conception, apart from envisioning the difficulties and limitations of the narrower conception, actually presents rationality in a much more coherent and consistent way, a way that is in harmony with common sense, social life and reality. Above all, and more important, is that this wider conception of rationality is thus more comprehensive to the

extent that it captures the apparent and relative flux and the relative unpredictability observed in the universe. This conception of rationality can also be harmonized with mystery and such phenomena as miracles as discussed in the second chapter.

For example, if emotion is necessarily and absolutely a negation of rationality (as is implied in the narrower conception of rationality) and emotionality (and by extension morality on the interpretation of emotivism) is an integral aspect of humanity (explaining and justifying such phenomena as sympathy, mercy, empathy) to the extent that man is humane and civilized by virtue of a modicum of emotionality and morality [cf Nyasani, 2001: 3-10], then in that case it is not accurate to contend that man is a rational being. This is the inconsistency and contradiction in the western, positivistic, scientistic conception of rationality. This is because it amounts to saying that:

(i) Logic ensures coherence, consistency, predictability and clarity (systematicity)

(ii) Rationality is defined in terms of coherence, consistency, predictability and clarity (systematicity and by extension logicality)

(iii) Therefore rationality is equitable with logicality (i.e. rationality is logicality)

(iv) In fact therefore being rational is being logical and being logical is being rational *simpliciter* (absolutely).

(v) However, logic is innocent of emotion.

(vi) But since being logical is being rational and being rational is being logical, given that logic is innocent of emotion, rationality is innocent of emotion.

(vii) All these notwithstanding, man is a rational being and emotionality is an integral aspect of man. This means that the nature of man is such that it demands a modicum of emotion (for him/her to be humane), although emotionality and rationality are opposed

This is tantamount to saying, in a nutshell, that Man is both emotional and rational although rationality and emotionality are opposed in all cases and under all circumstances. The contradiction is that rationality is innocent of emotionality and man is a rational being although man is an emotional being. This is the conclusion to which the second and third chapters lead with regard to the narrower conception of rationality in logical terms as opposed to the competing wider conception which is more consistent and comprehensive allowing for primordial openness, giving room for a minimum of emotionality and morality. In this case, the reason in the wider conception is primal and superior to the "reason" in the narrower logical conception.

It is in this line of reasoning that Boelen (1971: 202) contends that "Be this as it may, the interpretation of rational as "logical", or "technological" fails to disclose man's essence as the unveiler and thinker of being". This is because in such a rationalistic world where "rational" is logical, the conception of real causality becomes superfluous and is replaced by the notion of "predictability" of successive events.

This rationalistic universe is therefore a deterministic interplay of independent forces. Here, nothing is ever created and nothing ever passes away. Thus real beginning,

becoming and change are reduced to mere locomotion, and causality is nothing but predictability. This does not leave room for personal freedom and responsibility. In this case, man is contained in such a universe as a mechanical part of the cosmic machine. This universe has no meaning or value besides being a huge system of logical and mathematical relationships. It therefore means that man loses his sense of wonder, his self-identity and the very meaning of his existence.

Boelen (1971:8) writes in this regard that:

> Modern man feels existentially frustrated in a mechanized world in which he has been degraded to a replaceable function, to a mere product of biological, psychological and sociological driving forces, or to an anonymous part of the cosmic machine. Modern man has been reduced to a robot (l'homme machine de lamettrie) and is promised "perfect happiness for his "perfect" adjustment to a "perfect" network of mathematical and logical relationships. Yet modern man feels "perfectly" empty, despairs over the meaning of life, and wonders if his life is not ultimately "a tale told by an idiot". "This uneasiness", says Gabriel Marcel, "is enough to show that there is in all this some appalling mistake, some ghastly misinterpretation, implanted in defenseless minds by an ... inhuman philosophy.

As can be appreciated from this quotation, such a universe, perfectly accounted for in logical terms, may satisfy logical reason, but not man. Though such a universe may explain and therefore solve particular problems, it dissolves the meaning of life. Though that rationalistic logical universe may answer logical problems, it involves such

fundamental questions, as "Is life worth living?" Therefore Rationalism, informed by logic, is unsuccessful in its attempt to reject the mysteriousness of fundamental phenomena and to silence the questions they raise.

This conclusion eventually leads to the need to very categorically mark the boundaries of logic and rationality. While logic revolves around the articulation of a series of steps (logical) to be taken in inductive and deductive inferences, rationality ultimately derives from and echoes the articulation of the differentiated self-manifestation of being. While logic is essentially abstractive (to the extent that it is mainly concerned with universals - form, structure, system - rather than particulars, instances, the matter), reductive and mechanical, rationality is an experiential encounter, a creative interplay and a truly existential phenomenon.

Therefore, the fear of fixating the flexibility and dynamism of rational thinking is the basis for the reluctance to adopt the narrower conception of thinking that pegs rationality entirely on logicality. The explanation as so far discussed in the light of the second, third and this chapter is that logic presumes a system and a system claims finality, and this is incompatible with the creative emergence and unfolding of the universe.

A system claims completeness, but this is incompatible with the primordial openness and inexhaustibility of the ontological mystery of the universe with which (as argued in this thesis) thinking has to be reconciled for it to pass as rational. Otherwise, a truth which resists inclusion in the system would simply be declared to be "irrelevant". A system

claims universal applicability. But in rational thinking, this would amount to a procrustean method which tries to fit original phenomena into the single mould of straight thinking.

Straight thinking encapsules the universe in a few abstract principles and logical deductions. The rigidity of this procedure, however, is incompatible with the dynamic openness of rational thinking in which every step means a new beginning, every move redefines the whole, and every reflection remains open to new incursions of experience.

As Boelen writes,

> Neither random thinking nor closed systems are faithful to the primary data of philosophy. For the primordial openness of wonder is the permanent ontological horizon within which the multiplicity of philosophical phenomena find their dialectical unity [Boelen, 1971: 105].

For Boelen, a philosophical system is not said to be true because it is consistent, but it is consistent because it is philosophically true (i.e., comprehended within the larger complex whole, the universe). A philosophical system is however true to the extent in which the phenomena are dialectically standing together in the transcending light of the mystery of being. In this regard, a philosophical system is true to the extent in which its data are gathered in the dynamic openness of primordial wonder. Therefore, neither the truth as correspondence nor the truth as coherence are as such sufficiently fundamental to

constitute the truth of a philosophical system. Correspondence and coherence have to be seen in the light of and guided by the evolving and unfolding reality. It is in this regard that stereotyped procedures and fixed concepts (that characterize logic) are argued to fail to abide by the dictates of reality and thus constitute a characterization of an artificial hypothetical universe or at least merely reflect a world of possibility and not a real world.

On the preceding note, a philosophical system as explained is what illustrates rational thinking as opposed to mere logical thinking. Logical thinking is rectilinear (confines), atomizing (simplifies), unreflective (does not see reality in terms of its intrinsic value and end but merely focuses on the inferential import of such reality i.e., the bare consequence relations), and abstractive (universalizes or generalizes without regard to the uniqueness of each particular case which may dictate difference as opposed to similarity). It leaves its starting point, never verifies its own premises (assumes the truth of the relevant premises) and results in conclusions that are accomplished facts (assumes finality in the conclusions). Rational thinking, on the other hand, is circular (relatively open ended), comprehensive (more inclusive and thus more flexible), multidimensional (takes cognizance of more aspects and considerations) and experiential (tied to the actual empirical piecemeal presentation of reality). Rational thinking never leaves its starting point behind, never results in final conclusions and is the self-verification of primordial wonder in a never-ending ascendancy.

It follows therefore that logic is the controlling and controllable thinking of man as the scientific subject whose experiential world is not involved in his scientific thought (i.e.,

the theoretical hypothetical world of possibility as opposed to the actual world of reality). Logic is the reason man has. Rationality on the other hand is the overwhelming all encompassing and inspirational thinking of man as the participant in being and involves his existence in its entirety. Therefore rationality is the reason man is. In other words, rationality is the reason which has man. It is in the light of rationality that man essentially exists as man by fundamentally going beyond himself into the primordial depth of being (the identification and acknowledgment of man as a part of the larger complex whole, the universe). The immanence and transcendence of rationality constitute the fundamental paradox of human existence and of existential thinking. It is to this paradox and the questions it raises for existential thinking that this chapter and chapter four have focused on in greater detail.

Therefore, it is to be noted that logic is subservient to rationality, that logic cannot and should not be equated to rationality, and that the relevance of logic to rationality rests merely in the internal coherence of reasoning. Logic is therefore only equal to rationality in "a world of logic" (i.e., a world of mere possibility and not the actual world, the real world). Logic is thus relevant to rationality in so far as and in as much as internal coherence and consistency is an aspect of rationality. Contrary to the narrower scientistic positivistic conception, logic does not constitute the entire, complete edifice of rationality.

6.0.0 CONCLUSION AND RECOMMENDATIONS

CONCLUSION

This study has shown that the popular and more or less conventional (scientistic/ positivistic) conception of rationality in terms of mere logic (or constrained inference) is a narrower conception of rationality. The use of logic as a model for rationality has been shown to be invalid and reductionist. It is especially erroneous to extend this conception of rationality from the realm of science (and physical nature) to human social life.

The study has further argued and shown that the claim to absolute objectivity and predictability by science and (by extension) positivism is itself validly questionable. This claim has been argued and shown to be a myth due to the personal subjective elements and human values that have been argued to guide and give meaning to science itself. This has led to the conclusion that there is therefore no warrant to celebrate such a conception of rationality to the extent of extending it outside of the realm of science and physical reality to human life. The objectivity, impersonality and predictability claimed by such a conception of rationality has been argued and shown to hold *secundum quid* (relatively so) and not *sipliciter* (absolutely and without qualification).

To this extent, it is shown by the study that there is no necessary exclusion of sentiments (feelings or emotions) or morality (or ethics) from meaningfulness and (by extension)

rationality. The study also shows that therefore the more comprehensive and wider conception of rationality (contrary to positivism) is one which admits of sentiments and morality if and when necessary.

Legal positivism is the version of positivism that this study has particularly focused on. The study has hitherto established that basing on the positivistic tradition, legal positivism separates the law from morality and also celebrates the disinterest, impersonality and impartiality of the law by the suppression of emotion and the exclusion of morality. Such exclusion is particularly echoed in the "separation thesis" of legal positivism. Austins's "The Province of Jurisprudence Determined" and Kelsen's "Pure theory of Law" are classic illustrations of this "separation thesis". This separation is exposed as intended to ensure absolute objectivity. It has however been argued and shown that such an extent of objectivity occasionally compromises moral justice. It has also been argued and shown that such an extent of objectivity falls short of rationality construed in the wider and more comprehensive sense. Hard cases and the general gray areas of the law have been used to illustrate this limitation of positivism in general and legal positivism in particular to invariably ensure rational acts, decisions and conclusions. The limitation has also been shown to be inimical to justice in the immutable ultimate sense hence the exposition of an intrinsic relationship between rationality in the comprehensive sense and justice in the ultimate invariable sense.

The absolute exclusion of morality and sentiments (or feelings or emotion) from the theoretical construct of positivism in general and legal positivism in particular has

therefore been argued and shown to account for the theoretical insufficiency and practical inability of legal positivism to invariably guarantee rational conclusions. It has also been argued and shown to account for the limitation of legal positivism to guarantee moral justice (or natural justice, justice in the ultimate sense). This separation of the law from morality, the exclusion of emotional considerations, and the strive for absolute objectivity has been argued and shown to confine legal positivism to a narrower conception of rationality. Such a conception of rationality has however been shown to be possibly only consistently tenable in physical nature and not human social life.

The study has shown that a wider and more comprehensive conception of rationality has to incorporate or at least tolerate or accommodate in its postulation a modicum of morality and emotionality, the essential features of human social life. To a significant extent, these features explain and influence the relative variability and unpredictability of human social life. Therefore, it has been argued and shown in the study that the evaluation of behavior in human social life ought to take cognizance of morality and sentiments.

The study has shown that legal positivism erroneously assumes (in its upholding of the ideals of logic) that human behavior can be completely and invariably foretold and evaluated beforehand. It is in this respect that the school of natural law has been argued (in the fifth chapter) to be a more consistently tenable school of thought in the light of rationality in the wider sense and justice in the more immutable, deeper sense. This is because of the inclusion of moral and emotional considerations in the theoretical

construct of the school of natural law and an allowance for the variability of phenomena in its theoretical conception.

Against this background, the study has also established a strong positive correlation between rationality and justice. By extension, the relationship between logic, rationality and justice has been exposed. This is especially quite fundamental for the progress and development of legal philosophy and (by extension) the whole system of the administration of justice right from the abstract theoretical foundations to the concrete practical experience.

Evidence and constrained inference (logic) have been shown to be the underpinnings of rationality in the scientistic positivistic school. They have been shown to have been construed in this school to be sufficient to define rationality. It is in this light that logic (as the theory of consequence relations of valid inference) has been equated with rationality. However, the study has shown that defining rationality merely in terms of evidence and constrained inference is tantamount to equating human intellect to machines. This means that there is no difference between natural human intelligence and artificial intelligence. The study shows the absurdity of conceptualizing human beings and their life as such. The study has thus consistently argued and shown that a modicum of moral and emotional considerations, considerations that fall outside the realm of mere evidence and constrained inference (logic) must be incorporated in a comprehensive conception of rationality. This means that evidence and constrained inference have to be perceived and applied in the context of a minimum of morality and emotional

considerations in order to ensure an edifice of rationality that is comprehensive and informed by the human element.

The absolute exclusion of the two (morality and emotion or sentiments) from any theoretical construct of a general theory of rationality (as is seen in positivism) is argued in this thesis to be an arbitrary action and contradictory thinking based on a begging of the question as to what determines (or defines) rationality. This is (apart from other reasons adduced and arguments presented already) especially in the light of the general perception of man as a rational and emotional being. It is in this regard that legal positivism, grounded on the positivistic scientistic tradition, fails (in its theoretical construct) to invariably guarantee rational decisions and therefore (in the light of the study) Just decisions (in the deeper sense).

In summary, the study has established that:

1) Positivism in general, Legal Positivism in particular and any theoretical construct that is based on a scientistic conception of rationality as logicality constitutes a narrower conception of rationality by virtue of having been founded on the ideals of logic. It is therefore inappropriate to extend such a conception of rationality to human social life and particularly to act as a basis for legal reasoning.
2) There are safeguards against the inadequacy of the theoretical foundation of legal positivism in the form of such constitutional provisions as Prerogative powers seen in the powers of commutation and presidential pardon. Such constitutional provisions are aimed at ensuring the supremacy of the principle of Equity and to

act as a safeguard against "harsh justice" – rigid Procedural or Formal Justice that rests on pure logical reasoning. However, such constitutional provisions are subject and more susceptible to abuse by individuals. More important though is that such a safeguard as is seen in such constitutional provisions indicates a practical limitation of positivism and legal positivism in particular. The study however identifies and articulates the theoretical genesis of such practical limitation as (to a great extent) resting in an absolute exclusion of sentiments and morality in the theoretical construct of positivism in general and legal positivism in particular.

In Kenya, the greatest approximation (in theoretical essence) to justice in the event that the ordinary courts are seen to fail to serve justice is the court of appeal. This court is unfortunately formalistic and rests on mechanical jurisprudence by virtue of the positivistic orientation of the judges and the limit of their powers and mandate in the light of the constitution. The court has a 100% constitution of lawyers. This gives the court a positivist cast with the potential of the same undesirable possible limitation to ensuring Equity. Even in The Draft Constitution of Kenya (2004) [Chapter 13, 186. (1) a, b, c] the proposed Supreme Court has all its members as Judges (essentially lawyers). This still exhibits that positivist cast.

RECOMMENDATIONS

Against the preceding background, it is the recommendation of this thesis that:

1) A Supreme Court is adopted in the constitution of Kenya to enhance the guarantee of the observance of Justice that is founded on a wider and non-positivistic conception of rationality. This court (contrary to the proposal in the Draft Constitution) is to be made up of members from diverse backgrounds including lawyers. The reason for such diversity is to check the potential positivistic bias of lawyers as can be appreciated in the light of the various examples cited in the body of this thesis.

This recommendation rests on the postulation echoed in this thesis that the knowledge and service of real justice (Natural justice /Moral justice as opposed to Formal justice/Procedural justice/Legal justice) is not the monopoly or preserve of lawyers, that individuals from other orientations (such as religion, politics and academics) can also know what justice is and how it can be served. That in fact, the law is made by such individuals and it is such individuals who can claim authority in the knowledge of the intrinsic value and objective of the particular laws and the law in general. This is because it is these individuals who are involved in the deliberative evolution of the laws that are finally passed. The lawyers and judges can therefore only claim authority in the technical

knowledge and skills of the legal profession hence their predominantly mechanicalistic reasoning especially in the positivistic orientation.

Therefore, it is desirable that in the event that justice is not seen to have been served in the courts of law, the matter should be referred to a body such as the supreme court constituted as recommended above. It is the argument of this thesis that it is mainly in this way that the evil of formalism (following the positivistic orientation of judges and lawyers) can be addressed. It is also the argument of this thesis that it is in this way that the possible abuse of prerogative powers vested in an individual (The President, or the Attorney General) can also be checked. The significance of this latter suggestion can be appreciated in the light of the accusations leveled against president Mwai Kibaki (the president of Kenya in 2004) that his refusal (on the basis of the constitutional executive powers vested in the presidency) to approve the name of Mr. Julius Rotich as a member of the Kenya Anticorruption Commission despite Parliamentary approval was an action based on some ulterior motives other than the claim of moral duty for the common good. The entering of a *nole proseque* by the Attorney General against a suit against the First Lady and a Kenyan white farmer in Kenya (2005) and the subsequent reaction by the public and politicians are other examples that illustrate the precarious nature of vesting such powers in individuals. The uneasiness of vesting executive powers in individuals can therefore be appreciated in the light of the fact that such powers can be abused for personal exigency and expedience.

2) The constitutional provisions to uphold the principle of Equity (Prerogative powers – e.g. Powers of Commutation and Pardon) should be vested in this Supreme Court to minimize chances of abuse. This is an opportune recommendation that has great significance for especially Kenya at this time of the constitutional review process where the question of the devolution of power from the president is primal in the review debate. This would be a grounded instance of devolution of power from an individual (the president) to an institution (the Supreme Court).

3) It also needs to be emphasized here as a recommendation that courses in the training of lawyers should clearly and distinctly expose and articulate the intimate relationship that holds between morality and sentiments on one hand and the end and purpose of the law on the other. Also, Judges have to be sensitized and deliberately exposed to the fact that justice cannot be guaranteed following a theoretical postulation and conception of the law as absolutely separate or distinct from morality and sentiments. In this light, it needs to be categorically clear to lawyers and judges that "the separation thesis" upheld in legal positivism is not consistently tenable and is not invariably applicable within the context of the end and purpose of the law. In a nut-shell, extensive and intensive exposure of lawyers and judges to the indispensability of ethics and morality to a stable and successful legal regime is necessary. Any claim to the justification for the existence of law has also to take cognizance of the necessity of moral and

> ethical considerations. Lawyers and judges have to as well be made to appreciate that justice in any meaningful and consistently tenable sense has to be derived from ethical and moral considerations and precepts.

The significance and merit of these recommendations rests to a great extent on the fact that they are founded on an exposition, analysis and evaluation of the theoretical and practical underpinnings and implications of the cognate issues and concepts (rationality, logic and the law). This has been done within the context of the wider and more comprehensive conception of the relevant issues and concepts and not on a plane of mere political interest and exigency as such.

7.0.0 BIBLIOGRAPHY

Adams, D.M. Philosophical Problems in the Law. Belmont, CA: Wadsworth, 1992.

Adler, J. and Gorman w. The Great Ideas: A syntopicon of Great Books of the Western world. Vol. 1 Chicago: William Benton, 1982.

Ahmad, T. Revelation, Rationality, Knowledge and Truth. Oxford: Surrey, Islam International Publications, 1998.

Aquinas, T. Selected Political Writings. D'entreves A.P (Ed.), Dawson J.G. trans., Oxford: Blackwell, 1948.

Summa Theologica. Chicago: William Benton Publishers, 1952.

On Law, Morality and Politics. Regan .J. and Baumgarth (Eds.), Cambridge: Avater Books, 1988a.

On Politics and Ethics. Sigmund P.E. (Ed.and trans.). New York: W. W. Norton, 1988b.

Aristotle. Prior Analytics. Indianapolis: Hackett Publishing Co., 1989.

Posterior Analytics Book 1. New York: Walter J. Black, Inc., 1971.

"Aristotle, Menacchmus and Circular Proof". in *Classical Quarterly*, 1976.

Topica et sophistici Elenchi. W.D. Ross (Ed.), Oxford: Oxford University Press. 1958.

Aristotle's Metaphysics. W.D. Ross (Ed.) Oxford: Oxford university Press, 1924.

Aristotle's Prior and Posterior Analytics. W.D. Ross, Oxford: Oxford University Press, 1949.

Rhetorica. Roberts. W.R. trans., in Ross W.D. (Ed.), The Works of Aristotle. Vol. XI, Oxford: Clarendon Press, 1924.

Politics, Barker E. trans., Oxford: Clarendon Press, 1948.

Politics. Jowett B. trans., New York: Modern Library. 1943.

Nichomachean Ethics. Arwin T. trans., Indianapolis: Hackett, 1985.

Austin, J. The Province of Jurisprudence Determined, London: J.M. Dent & Sons, 1954.

The Province of Jurisprudence Determined. London: Weidenfeld & Nicolson, 1955.

Ayer A.J. An inquiry into Meaning and Truth. Indianapolis: Bobbs-Merrill Company, 1940.

The foundations of Empirical Knowledge. Edinburgh: University press, 1940.

Language, Truth, and Logic, New York: Dover Publications, 1980.

The Central Questions of Philosophy. London: Weidenfeld and Nicolson, 1973.

Ayer A.J. and Raymond W. (eds) The British Empirical Philosophers. Indianapolis: Bobbs- Merrill Company. 1952.

Bailey, G. The Tactical Uses of Passion. Ithaca: Cornell University Press, 1983.

Baker, C.D. Tort. London: Sweet and Maxwell. 1991.

Baker, G. and Morris K. Descartes' Dualism. London: Routledge. 1996.

Barnes, J. 'The Law of Contradiction' in *Philosophical Quarterly,* 1969.

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

Bentham, J. An Introduction To The Principles of Morals and Legislation. London: The Athlone Press. 1970.

Bix, B. Jurisprudence: Theory and Context. London: Sweet and Maxwell, 1996.

Bloor, D. Knowledge and Social Imagery. London: Routledge and Kegan Paul, 1976.

Boelen, B. Existential thinking. New York: Herdewr and Herder, 1971.

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

Brown, J. The Rational and the Social, London: Routledge, 1989.

Brown, H. Rationality, London: Routledge, 1988.

Bushkovitch, A. "Philosophy of Science as a Model For All Philosophy" in *Philosophy of Science*. Official Journal of the Philosophy of Science Association, Volume 37, No. 2, June, 1970.

Carnap, R. Meaning and Necessity Chicago: University of Chicago Press, 1947.

The logical Structure of the world. Berkeley: University of California Press, 1967.

Logical Foundations of Probability. Oxford: Clarendon, 1977.

Carothers, J. The Mind of Man in Africa. London: Tom Stacy, 1972.

Cederblom, J. and Paulsen, W. Critical Reasoning. Belmont, Calif.: Wadsworth, 1982.

Chadwick, H. Boethius. The Consolations of Music, Logic, Theology and Philosophy. Oxford: Clarendon Press, 1980.

Chemiak, C. Minimal Rationality. Cambridge, M A: MIT Press, 1986.

Cicero, De Republica and De Legibus. Keyes C.W. trans., London: Heinemann, 1928.

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

Damer, E. Attacking Faulty Reasoning. Belmont. Calif.: Wadsworth, 1980.

David, H. Peirce's Epistemology. The Hague: Clarendon Press, 1972.

Descartes, R. The Passions of the Soul. S. H. Voss trans. Indianapolis: Hackett, 1989.

D'entreves, A.P. Natural Law: An Introduction to Legal Philosophy. London: Hutchinson. 1951.

Dougherty, K. Logic. An Introduction to Aristotelian Formal Logic. New York: Graymoor Press, 1956.

Dung, P.M. "On the acceptability of argument and its fundamental role in non monotonic reasoning, logic programming, and n-person games" in *Artificial intelligence*, 77, pp.321-357, 1995.

Durant, W. The Story of Philosophy. Washington: Washington Square Press, 1973.

Dworkin, R. A Matter of Principle. Cambridge: Harvard University Press, 1995.

Law's Empire, London: Fontana Press. 1986.

A Matter of Principle, Cambridge: Harvard University Press, 1985.

Taking Rights Seriously, Cambridge: Harvard University Press, 1977.

Taking Rights Seriously, London: Oxford University Press, 1978.

"On Gaps in the Law" in Amselek and McCormick, (Eds.) Controversies About Law's Ontology, Edinburgh: Edinburgh University Press, 1991.

Evnine, S. "The Universality of Logic: On the Connection between Rationality and Logical Ability" in *Mind* Journal, Vol 110, Nov. 438, April 2000.

Faurot, J. The Philosopher and The State, Toronto: Chandler Publishing Company, 1971.

Feyeraband, P. Against Method, London: Routledge, 1979.

Freeman, J. Thinking Logically: Basic Concepts of Reasoning. Eaglewood Cliffs, N.J.: Prentice-Hall, 1988.

Frege, G., "On sense and Reference" in Translations from the Philosophical writings of Gottlob Frege, P.T. Geach and M. Black, (eds.) Oxford: Basil Blackwell, 1952.

Logical Investigations, Hurmburge: Felix Meiner, 1969.

Die Grundgesetze der Arithmetik. Jena: H. Pohle, Vol. I, 1893.

Nachgelassene Schriften. Hans Hermes, Friedrich Kambartel and Friedrich Kaulbach (Eds.). Hamburge: Felix Meiner, 1983.

Begiffsshrift. Halle: L. Nebert, 1879.

Finnis, J. 'On Reason and Authority in Law's Empire', 6 in *Law and Philosophy*, pp.357-380, 1987.

Fish. S. Doing what comes Naturally: Change, Rhetoric and the Practice of Theory in Literally and Legal Studies. Oxford: Duke University Press, 1989.

Fletcher, G.P. Basic Concept of Legal Thought. New York: Oxford University Press, 1996.

Foucalt, M. and Simon, J. 'A Conversation with Michael Foucalt', *Partisan Review*, No. 2, pp. 201, 1971.

Gallagher, K. The Philosophy of Knowledge. New York: Fordham University Press. 1982.

Gavison. R. Issues in Contemporary Legal Philosophy. Oxford: Clarendon Press. 1992.

Geffner, H., and Pearl. J., "Conditional Entailment" in *Artificial Intelligence*, 53, Pp. 44 - 209, 1992.

George, R.P. (Ed.) Natural Law Theory: Contemporary Essays. Oxford: Clarendon, 1992.

Goble, L. Philosophical Logic. New York: Oxford University Press, 2001.

Godel, K. — On Formally Undecidable Propositions of Principia Mathematica and Related Systems, J. Van Heijenvout (Ed.). London: Oxford University Press, 1931.

Goodman, N. — Fact, Fiction and Forecast, New York: Hackett, 1977.

Problems and Projects, Indianapolis: Blackwell. 1976.

Golding, M.P — The Philosophy of Law, London: Englewood Cliffs, Prentice-Hall, 1975.

Goldman, A. — Epistemology and Cognition, Cambridge: Harvard University Press, 1986.

Gordon, T.F. — "The Pleadings Game" in *AI and Law*, Vol. 2, No. 4, pp.239-292, 1993.

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

Greenawalt, K. — Law and Objectivity, New York: Oxford University press. 1992.

Guy, J. Scientific Discovery, Logic and Rationality. London: D. Reidel Publishing Company, 1978.

Haack, S. Philosophy of Logics. London: Cambridge University Press, 1979.

Hall, K. America Legal History. New York: Oxford University Press, 1996.

Hamblin, L. Fallacies. London: Methuen, 1970.

Harris, J.W. Legal Philosophies. London: Butterworths, 1980.

Hart H.L.A, "Positivism and the separation of Law and Morality " 71 in *Harvard Law Review*, pp. 593-629, 1958.

The Concept of Law. New York: Oxford University Press, 1961.

The Concept of Law. Oxford: Clarendon Press, 1994.

Essays on Bentham. Oxford: Clarendon Press, 1982.

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

Hegel, W.F. The Philosophy of History. New York: Dover Publications inc., 1956.

The Science of Logic. London: Wadsworth, 1969.

Herman, B. The Practice of Moral Judgment. Cambridge: Cambridge University Press, 1983.

Hidebrand, D. What is Philosophy? Milwaukee: Bruce Publishing Co., 1967.

Hobbes, T. Leviathan. London: Collins. 1962.

Hollis, M. Reason and Rituals. Oxford: Blackwell, 1970.

Hume, D. Introduction to Mathematical Philosophy. New York: Norton, 1919.

A Treatise of Human Nature. Garden City: Doubleday Image Books, 1940.

A Treatise of Human Nature. London: Fontana, 1972.

Hutchison. K — Logical Positivism. London: Bobbs-Merril, 1977.

Hylton, P. — Russell, Idealism. and the Emergence of Analytic Philosophy. Oxford: Oxford University Press, 1990.

Jackson, T. — The Law of Kenya. Nairobi: Kenya Literature Bureau, 1988.

The Law of Kenya. Nairobi: East African Literature Bureau, 1970.

Kahame, H. — Logic and Philosophy, Belmont, Calif.: Wadsworth, 1982.

Kant, I., — Critique of Practical Reason. Chicago: William Benton Publishers, 1952.

Critique of Pure Reason. Chicago: William Benton Publishers, 1952.

Critique of Pure Reason, New York: St. Martin's Press, 1965.

Critique of Judgment, New York: Hefnar Publishing Company. 1951.

Lectures on Logic, Michael J. Young (trans. and Ed.), Cambridge: Cambridge University Press. 1992.

Metaphysical Elements of Justice, New York: Macmillan, 1965.

Political Writings, Hans Reiss (Ed.), Cambridge: Cambridge University Press, 1992.

The Grounding of the Metaphysics of Morals, Ellington J. trans., Indianapolis: Heckett, 1981.

Kapp, E. Greek Foundations of Traditional Logic, New York: Columbia University Press, 1942.

Keen, S. The Passionate Life, New York: Harper & Row. 1975.

Kekes, J.A — Justification of Rationality New York: State University of New York Press, 1976.

Kelsen H, — General theory of law and state, Cambridge: Cambridge University Press, 1945.

The Pure Theory of Law, Berkeley: University of California Press, 1967.

The Pure Theory of Law, Knight M. trans., Berkeley: University of California Press, 1970.

Kerferd, B. — The Sophistic Movement, Cambridge: Cambridge University Press, 1981.

Kneale, W. — The Development of Knowledge, Oxford: Clarendon Press, 1962.

Kress, K. — "Legal Reasoning and Coherence Theories: Dworkin's Right Thesis, Retroactivity and the linear order of Decisions", 72 *California Law Review*, 369 – 402, 1984.

Kuhn, T. The Structure of Scientific Revolutions. Chicago: The University of Chicago Press. 1962.

The Essential Tension. Chicago: The University of Chicago Press, 1977.

Lakatos, I. "Falsification and the Methodology of Scientific Research Programmes" in Lakatos and I. Musgrave (eds.) Criticism and the Growth of Knowledge, Cambridge University Press, 1970.

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

Laudan, L. Progress and its Problems. Berkeley: University of California Press, 1977.

Lear. J. Aristotle and Logical Theory. Cambridge: Cambridge University Press, 1980.

Lehrer, K. Self-Trust. New York: Oxford University Press. 1997.

Levy-Bruhl, L. Primitive mentality. London: Allen and Unwin, 1962.

Lloyd. D. The Idea of Law. Middlesex: Penguin Books. 1981.

The Idea of Law. London: Penguin Books. 1964.

Locke, J. An Essay concerning Human Understanding. London: William Blackwood and Sons Ltd. 1960.

Philosophy of Civil Government, Two Treatises. London: J.M. Dent & Sons, 1924.

Essays on the Law of Nature. Oxford: Clarendon Press, 1954.

Lukes, S. Some Problems about Rationality. Oxford: Blackwell, 1970.

Lyons, D. Ethics and the Rule of Law. Cambridge: Cambridge University Press, 1984.

Lyotard. J. The Postmodern Condition. Manchester: Manchester University Press, 1986.

Mackie, J. 'The Third Theory of Law', in *Philosophy and Public Affairs*, Vol. 7, No. 1 (Autumn), 1977.

Magnus, B. "The Will to Power" in *International Studies in Philosophy*, 22, No. 2 pp. 49- 57, 1990.

Maguire, D. A new American Justice, New York: Winton Press, 1980.

Malatesta, M. The Primary Logic, Rome Millennium, 1997.

Marmor, A. Interpretation and Legal theory, Oxford: Clarendon Press, 1992.

Masolo, D. A. African Philosophy in Search of Identity, Nairobi: East African Educational Publishers, 1995.

McCormick, L. "Coherence in Legal Justification", in Peczenic A, et al. (eds.), London: Cambridge University Press, 1984.

McCormick, N. Legal Reasoning and Legal Theory, Oxford: Clarendon Press, 1978.

Mclaughlin, A. "Rationality and Total Evidence" in *Philosophy of Science*, Official Journal of the Philosophy of Science Association. Volume 37, No. 2, June 1970.

Mcpeck, J.E Critical Thinking and Education New York: ST. Martin's Press, 1981.

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

Mill, J. S. Logic, London: Oxford. 1970.

Utilitarianism, New York: Macmillan, 1969.

System of Logic, London: Longmans Green and Company, 1956.

Miller, J. Michael Foucault. New York: Simon and Schuster, 1993.

Mohanty J. and MacKenna, W. Husserl's phenomenology: A textbook. Lanham: University Press of America. 1989.

Mohanty, J. Rationality in Question: On Eastern and Western Views of

Rationality, Schlomo Biderman and Ben-Ami Scharfstein (Eds.), Leiden: E.J Brill, 1989.

Moore. G. E. "Truth and Falsity" in Dictionary of Philosophy and Psychology, James Mark Baldwin (Ed.), New York: Macmillan, Vol. II 1901.

Mullen. J. "Postulates of Rational Preference" in *Philosophy of Science*, Official Journal of Philosophy of Science Association. Volume 37. No. 4, December, 1970.

Nehamas, A. Nietzsche: Life as Literature, Cambridge: Harvard University Press, 1985.

Nietzsche, F. "The Will to Power" in *International Studies in Philosophy*. 22, No. 2 pp. 49-57, 1990.

Beyond Good and Evil, W. Kaufmann trans., New York: Random House, 1967.

Nozick, R., The Nature of Rationality. Princeton, N.J.: Princeton University Press, 1993.

Anarchy, State and Utopia. New York: Basic Books, 1974.

Nyasani, J. Legal Philosophy: Jurisprudence. Nairobi: Consolata Institute of Philosophy, 2001.

Okafor, F.U. "Legal Positivism and the African Legal Tradition" in the *International Philosophical Quarterly* Vol. XXIV, No. 2, Issue No. 94, New York: Forthan University, June 1984.

Olivecrona, K. Law as Fact, London: Stevens and Sons, 1971.

Paton, W., A Text Book of Jurisprudence, Oxford: Clarendon Press, 1964.

Patterson, D. Law and Truth, New York: Oxford University Press, 1996.

Peczenik, A. Philosophical Essays, New York: St. Martins's Press, 1954.

On Law and Reason, Dordrecht: Kluwer, 1989.

Plato The Republic, Lee Desmond trans., London: Penguin Books, 1987.

The Apology, in The Trial and Death of Socrates. Grube G.M.A. trans., Indianapolis: Heckett. 1982a.

Crito in The Trial and Death of Socrates. Grube G.M.A. trans., Indianapolis: Heckett. 1982b.

Posner, R. The Problems of Jurisprudence. London: Hutchinson and Co. Ltd., 1990.

Prakken, H. and Sartor, G. "Modelling Reasoning with Precedents in a Formal Dialogue Game" in *AI and Law*. Vol. 6. Nos. 2-4. pp. 231-287, 1998.

Price, H.H. Thinking and Experience. New York: Harper and Brothers, 1953.

Putnam, H. Reason. Truth and History. Cambridge: Cambridge University Press, 1985.

Quine, W. V., Elementary Logic. New York: Harper & Row. 1965.

Methods of Logic. London: Routledge & Kegan Paul, 1974.

From a logical point of view. Cambridge: Harvard University Press, 1953.

Word and Object. London: Routledge, 1971.

Rawls, J. A Theory of Justice. London: Oxford, 1971.

Raz, J., Ethics in the Public Domain. Oxford: Clarendon Press, 1994.

Ethics in the Public Domain. Oxford: Clarendon Press, 1996.

The Authority of Law. Oxford: Clarendon Press, 1979.

"On the Nature of Law", 82 *Archive Fur Rechts Und Sozialphilosophie*, pp. 1-25, 1996.

Reichenbach, H. Experience and Prediction. Chicago: University of Chicago Press, 1938.

The Rise of Scientific Philosophy. Los Angeles: University of California Press, 1951.

Rescher, N. Cognitive Systematization. Oxford: Basil Blackwell, 1979.

Ronald de Souza. The Rationality of Emotion. Cambridge: MIT Press, 1987.

Rommen, H.A, The Natural Law: A Study in Legal and Social History and Philosophy. Hanley T.R. trans., St. Louis and London: B. Herder, 1947.

Russel, B. Human Knowledge. Milwaukee: The Bruce Publishing, 1940.

An inquiry into meaning and Truth. New York: Norton, 1940.

Logic and Knowledge. London: Routledge, 1994.

Principles of Mathematics. London: George Allen and Unwin. 1937.

Introduction to Mathematical Philosophy. London: George Allen and Unwin, 1919.

The Problems of Philosophy. Oxford: Oxford University Press, 1959.

Sanguineti, J. Logic and Gnoseology. Bangalore: Theological Publications, 1988.

Sankowski, E. "Responsibility of Persons for Their Emotions" in *Canadian Journal of Philosophy*, 7 pp.829-840, 1977.

Scheffler, I Reason and Teaching. New York: Bobbs-Merrill, 1973.

Scriven, M. Reasoning. New York: McGraw- hill Book company, 1976.

Sharp, A. Justice and the Maori. Auckland. N.Z.: Oxford University Press, 1990.

Siegel, H — Educating Reason. New York Routledge. 1988.

Skalak, D. and Rissland, E. — "Arguments and Cases: An Inevitable Intertwining" in *AI and Law*, Vol. 1 No. 1, pp.3 - 44, 1992.

Sogolo, G — Foundations of African Philosophy. Ibadan: Ibadan University Press, 1993.

Solomon, R.C., — The Joy of Philosophy. London: Routledge. 1999.

Passion for Justice. New York: Addison-Wesley. 1990.

Sommerville. J. — Thomas Hobbes: Political ideal in Historical Context. London: The Macmillan Press. 1992.

Spencer J.R, — Jackson's Machinery of justice. Cambridge; Cambridge University Press, 1989.

Steuerman, E. — The Bounds of Reason: Habermas. Lyotard and Melanie Klein on Rationality. London: Routledge, 2000.

Stroud. B. "Inference, Belief. and Understanding" in *Mind Journal*. 88. pp. 96-179. 1979.

Sunstain. C.R Legal Reasoning and Political Conflict. New York: Oxford University Press, 1996.

Teays. W. Second Thoughts California: Mayfield publishing company, 1996.

Tebbit. M. Philosophy of Law. London: Routledge, 2000.

Thomson, M. Philosophy. London: Hodder Headline. 2000.

Thoules. H. Straight and Crooked Thinking. London: English Universities Press, 1930.

Toulmin, S. 'Rationality and The Changing Aims of Inquiry' in the *International Congress For Logic. Methodology, and Philosophy of Science*, Bucharest, Suppes. Henkin, Joja and Moisic (Eds.), Amsterdam: North-Holland Publishing Co., 1971.

The Uses of Argument. London: Cambridge University Press, 1964.

Unger. R.U. Knowledge and Politics. London: Oxford University Press, 1975.

Van Eemeren, H. and Grootendorst, R. Speech Acts in Argumentative Discussions. Dordrecht: Foris Publications. 1984.

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

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

Walton, D. The Place of Emotion in Argument, University Park: Pennsylvania State University Press. 1992.

Practical Reasoning, Savage, Md: Rowman and Littlefield, 1990.

Weber, M. "Protestant Ascenticism and the Spirit of Capitalism" in G. Runcimon (Ed.) Max Weber: Selections in Translation, Cambridge: Cambridge University Press, 1978.

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

Weinrib, E. "Legal Formality: On the Immanent Rationality of Law" 97 *Yale* L.J. 949. 1988.

The Idea of Private Law. New York: W.W. Norton, 1995.

Westerman, D. The African Today. London: Oxford University Press. 1934.

Whitehead, A. and Russell, B. Principia Mathematica. Cambridge: Cambridge University Press, 1920.

Wilk, K. The Legal Philosophies of Lask, Rabruch and Debin, Cambridge: Harvard University Press, 1950.

Will, F. Beyond Deduction. New York: Routledge, 1988.

Wilde, O. Portrait of Dorian Gray. Cambridge: Harvard University Press, 1997.

Williams, B. Ethics and the Limits of Philosophy. Cambridge: Harvard University Press, 1985.

William, James. What is an Emotion. Cheshire Calhoun and Robert Solomon (Eds.). Oxford: Oxford University Press. 1984.

Wittgenstein, L. The Cambridge Companion to Wittgenstein. Hans Sluga and David G. Stern (Eds.), Cambridge: Cambridge university Press, 1996.

Tractetus Logico Philosophicus. London: Weidenfeld and Nicholson. 1980.

"The Draft Constitution of Kenya" pp 1-36 in *East African Standard*. March 26, 2004.

East African Standard, March 23, 2004 pp 16-18

" March 26, 2004 pp 2-3, 4. 14-15, 16-18

" September 8. 2004 pp 3, 14-16

" September 10, 2004 pp1-2. 16-18

" September 17. 2004 pp14-16. 40

" September 29. 2004 pp 8-9, 15-17

" November 3. 2004 pp 10