



**The Sciences as Explained  
in the Buddhist Scriptures  
(Tipitaka)**

**GB 406E**

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# FOREWORD

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The course “The sciences as explained in the Buddhist Scriptures (Tipitaka), GB 406E” demonstrates how the Lord Buddha’s Teachings are not only about the practice leading to the end of suffering, but they are also about different sciences. The sciences can be divided into three main categories. These include the humanities, the social sciences, and natural and physical science. Knowledge about the sciences as explained in the Tipitaka has a much greater breadth and depth than the knowledge about the sciences available in the secular world. This can be witnessed by the fact that certain phenomena have been discovered only recently but the Lord Buddha told us about them over 2,500 years ago. This is because the knowledge contained in the Tipitaka is derived from the Lord Buddha’s supernatural insight gained from having attained Self-Enlightenment. Supernatural insight is in turn the outcome of elevated meditative attainments. Therefore, the knowledge contained in the Tipitaka or Dhamma knowledge is the result of elevated meditative attainments (Bhavanamayapanna). It is different from secular knowledge which is gained through understanding acquired by learning (Sutamayapanna) and understanding acquired by reasoning (Cintamayapanna). It is hoped that this course material will inspire the student to learn more about the Tipitaka and apply what he has learnt in his daily life.

The preparation of this course material has been a team effort. It is possible that even after many rounds of editing; the material may still contain some mistakes. The Committee hopes to receive comments and feedback which will allow it to further improve upon this course material.

The Committee

May 2552 B.E.

# COURSE SYLLABUS

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## 1. Description of the Course Material

*GB 406E The Sciences as Explained in the Buddhist Scriptures (Tipitaka)*

It is the study of the different branches of knowledge as contained in the Tipitaka. Secular knowledge can be put into three main categories. These include the humanities, the social sciences, and natural and physical science. The Tipitaka does not contain only the knowledge that leads to the end of suffering but it also contains these three categories of knowledge. Out of these three categories of knowledge, there can arise a large number of different branches of knowledge. However, in this course only seven branches of knowledge will be mentioned. These include the humanities, political science, jurisprudence, economics, rhetoric, natural and physical science, and medical science.

## 2. Course Objectives

1. To enable the student to learn about the three main categories of knowledge as explained in the Tipitaka.
2. To enable the student to gain a deep appreciation for the Lord Buddha's Teachings and how it is important to apply what he has learnt in his daily life.
3. To enable the student to want to learn more about the Lord Buddha's Teachings so that he can further benefit himself and the Buddhist Cause.

## 3. Topics Covered in the Course

- Chapter 1 Introduction
- Chapter 2 The sciences according to the secular world
- Chapter 3 Basic knowledge about the Universe
- Chapter 4 Important Dhammic Principles in the Tipitaka
- Chapter 5 The Humanities according to the Tipitaka
- Chapter 6 Political Science according to the Tipitaka
- Chapter 7 Jurisprudence according to the Tipitaka

Chapter 8 Economics according to the Tipitaka

Chapter 9 Rhetoric according to the Tipitaka

Chapter 10 Natural and physical science according to the Tipitaka

Chapter 11 Medical science according to the Tipitaka

Chapter 12 Conclusion

# METHOD OF STUDY

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## **1. Preparation for Self-Learning**

In order to achieve the objectives of the course, the student should follow the steps for studying each chapter as follows.

- a. Spend an hour each day on the course material and try to finish each chapter within one to two weeks.
- b. Complete the pre-test provided at the beginning of each chapter so that the student can gauge his existing knowledge of the subject matter. Complete the exercises provided for the chapter at the scheduled time. At the end of the chapter, the student should assess his/her comprehension of the material covered by completing the test.
- c. Spend time on other learning tools especially the long-distance learning provided through satellite as detailed in 5.

## **2. Self-Evaluation before and after Each Chapter**

The student should complete the pre-test before beginning each chapter in order to gauge his knowledge of the subject matter. The student should also complete the test at the end of each chapter. Completion of the test will allow the student to know how well he has learnt the material covered in the chapter; and whether he/she is ready to proceed to the next chapter. The test score should be at least 80%. Self-evaluation would be meaningful only if it is carried out honestly.

## **3. The Course Book**

The student should first go over the layout of each chapter in terms of its topics, concepts, and objectives before proceeding with the detailed study. After having finished reading the entire chapter, the student should write down its main points and complete the exercises provided at the end of each chapter. The exercises will help the student to evaluate how well he has comprehended the material covered so that he can apply what he has learnt in his daily life. Therefore, the student should not wait until the last minute to do all of the exercises because such practice is missing the point.

#### **4. Completing the Assignments**

The student should write down the main points of each subject and complete all of the exercises provided at the end of each chapter. The assignments are an important part of the coursework.

#### **5. Long-Distance Learning via Satellite and Other Media**

The Dhamma study for the Environment Foundation broadcasts its programs via satellite 24 hours a day. Each program aims to give the general public practical information that helps promote morality. There are different programs that can help the student with this course such as Buddhist Words, the Law of Kamma, Meditation for Beginners, Luang Por's Answers, Life in the Round of Rebirth, Dhamma for the People, etc. Additional learning can be obtained through E-learning which is provided by DOU. For more details of these learning tools, please contact DOU's coordination center.

#### **6. Attending the Inner Dreams Kindergarten Program**

The student can learn about how to apply the Lord Buddha's Teachings in his daily life through real life examples by attending the Inner Dreams Kindergarten. This valuable program is broadcasted via satellite every Monday to Saturday from 7 p.m. to 9.30 p.m. (Thai time). There are also reruns of the program as posted in the broadcasting schedule. The student can request the broadcasting schedule from the DOU Coordination Center.

#### **7. The Exam**

The student will be evaluated for his knowledge of this course by a multiple-choice exam. However, it is more important that the student carries out additional searches in the Tipitaka on his own so that he can learn more about the Lord Buddha's Teachings.



# Chapter 1

## Introduction

# Chapter 1

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## Introduction

### Concepts

The knowledge contained in the Tipitaka has great breadth and depth. The Tipitaka not only contains the knowledge that leads to the end of suffering but it also contains the various branches of knowledge which can be put into three main categories. These include the humanities, the social sciences, and natural and physical science.

### Objectives

To enable the student to learn about the sciences as explained in the Tipitaka.

# Chapter 1

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## Introduction

The knowledge contained in the Tipitaka has great breadth and depth. The Tipitaka not only contains the knowledge that leads to the end of suffering but it also contains the various branches of knowledge which can be put into three main categories. These include the humanities, the social sciences, and natural and physical science.

The humanities are the branches of knowledge that deal with human beings with emphasis on the internal world such as the human mind, the value of being human, etc. The humanities include theology, philosophy, linguistics, civilizations, history, etc.

The social sciences are the branches of knowledge that deal with human beings and human relationships. The social sciences include political science, jurisprudence, economics, rhetoric, management, social science, etc.

Natural and physical science includes the branches of knowledge that deal with human beings and the physical environment. It includes chemistry, physics, biology, medical science, astronomy, agricultural science, etc.

This course will present the Dhammic knowledge about the humanities and natural and physical science. The humanities include political science, jurisprudence, economics, and rhetoric whereas medical science is presented as part of natural and physical science.

Knowledge contained in the Tipitaka is mostly about the humanities and the social sciences. The Tipitaka contains very little information about natural and physical science. And yet whatever information is given has a much greater breadth and depth than that available secularly. It is important to know that secular knowledge is gained through reading, thinking, and theorizing whereas Dhammic knowledge is gained through supernatural insight resulting from elevated meditative attainments.

In terms of Dhammic knowledge about natural and physical science, it is a fact that the Tipitaka made mentions of the universe as being the largest entity and the atom as being the smallest entity more than 2,500 years ago.

In the secular world, knowledge about the universe began to emerge only centuries ago. It began with Galileo (2107 -2185 B.E.) who had constructed a telescope and used it to observe the night sky. Many new discoveries about our universe have since been made and will likely continue into the distant future.

Advanced technology has made it possible for astrophysicists today to avail themselves of fantastic tools with which to study the universe. For example, the Hubble Space Telescope, which has been orbiting around our earth, can take images of distant objects as far as a billion light years away. Even then, just 10 – 11% of the universe has only now been explored. The Lord Buddha talks about the vastness of the universe in the Tipitaka. Moreover, He says that there is not just one universe but tens of thousands and hundreds of thousands of universes out there.

During the time of the Lord Buddha, medical science had advanced to the point where one physician was performing surgery on the brain and the intestine. In Thailand, the first surgery was performed just 170 years ago during the reign of King Rama III. Detoxification and sauna were being employed by the Lord Buddha and the monks over 2,500 years ago.

Knowledge about the social sciences according to the Tipitaka can be easily applied to today's social problems such as problems concerning politics and state governance, problems concerning the Constitution, problems concerning economics caused by rising oil and food prices, poverty, corruption, etc. The Tipitaka tells us about the root cause of the problems, how they should be solved, etc.

Knowledge about the humanities is the bulk of knowledge contained in the Tipitaka because the main aim of the Lord Buddha's Teachings is to help human beings put an end to suffering. Practically all of the courses offered at DOU have to do with the humanities. And this course serves to give a summary of important knowledge about the humanities according to the Tipitaka.

## **ASSIGNMENTS**

After you have finished studying this chapter, complete the test and the exercises provided in the workbook before proceeding to the next chapter.

# **Chapter 2**

## **The Sciences**

### **According to the Secular World**

## Chapter 2

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# The Sciences According to the Secular World

### **2.1 An Overview of the Sciences According to the Secular World**

- 2.1.1 The Humanities
- 2.1.2 The Social Sciences
- 2.1.3 Natural and Physical Science

### **2.2 Basic Tenets of the Sciences**

- 2.2.1 The Humanities
- 2.2.2 Political Science
- 2.2.3 Jurisprudence
- 2.2.4 Economics
- 2.2.5 Rhetoric
- 2.2.6 Natural and Physical Science
- 2.2.7 Medical Science

## **Concepts**

1. The sciences include all of the sciences existing in the world today. They can be put into three main categories namely, the humanities, the social sciences, and natural and physical science.
2. The humanities are the branches of knowledge that deal with human beings with emphasis on the internal world such as the human mind, the value of being human, etc. These include theology, philosophy, linguistics, civilizations, history, etc.
3. The social sciences are the branches of knowledge that deal with human beings and human relationships. These include political science, jurisprudence, economics, rhetoric, management, social science, etc.
4. Natural and physical science includes the branches of knowledge that deal with human beings and the physical environment. These include chemistry, physics, biology, medical science, astronomy, agricultural science, etc.

## **Objectives**

To enable the student to gain an overview of the sciences according to the secular world and the basic tenets of the seven sciences which include the humanities, political science, jurisprudence, economics, rhetoric, natural and physical science, and medical science.

## Chapter 2

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# The Sciences According to the Secular World

### 2.1 An Overview of the Sciences According to the Secular World

UNESCO<sup>1</sup> grouped all the sciences existing in the world today into three main categories. These include the humanities, the social sciences, and the different branches of natural and physical science<sup>2</sup>.

#### 2.1.1 The Humanities

This category of knowledge came into existence before other categories of knowledge. The humanities deal with human beings' internal world in the areas of thought, feeling, ethics, communication, the value of being human, etc. The humanities can be divided into pure and applied humanities.

##### **Pure Humanities**

These include theology, philosophy, linguistics, art, etc. Pure humanities represent abstract knowledge which provides the basis for other branches of knowledge.

##### **Applied Humanities**

These are the branches of knowledge which result from applying the knowledge contained in pure humanities. These include life's philosophy, religion in one's daily life, business language, industrial art, performing art, tourism, English for tourism, etc.

#### 2.1.2 The Social Sciences

It is the study of human beings and human relationships. The social sciences deal with the social environment<sup>3</sup> and can be divided into two groups: pure and applied social sciences.

##### **Pure Social Sciences**

Pure social sciences can be divided into three sub-groups: general knowledge, specific knowledge, and compound knowledge.

- 1) General knowledge is the different branches of general knowledge dealing with human society. These include anthropology, sociology, etc.

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<sup>1</sup> UNESCO stands for the United Nations Educational, Scientific, and Cultural Organization

<sup>2</sup> Jirachoke Veerasai, et al., (2546 B.E.) "General Political Science", p. 15

<sup>3</sup> Uraiwan Tanastit (2530 B.E.) "Principles of Humanities" p. 14

- 2) Specific knowledge is the different branches of knowledge necessary to human society. These include political science, economics, psychology, etc.
- 3) Compound knowledge is the different branches of knowledge resulting from a combination of different groups of knowledge. These include physical anthropology, political sociology, political economy, social psychology, agricultural business, agricultural industry, etc.

### **Applied Social Sciences**

These are the branches of knowledge which result from applying the knowledge contained in pure social sciences. These include community development, social welfare, management, leadership, human relations, advertisement, mass communications, rhetoric, computer & business planning, mass communications business, industrial management, etc.

### **2.1.3 Natural and Physical Science**

Natural and physical science includes the branches of knowledge that deal with human beings and the physical environment.<sup>4</sup> It is the study of soil, water, stone, minerals, air, vegetation, animals which include human beings. Natural and physical science can be divided into pure and applied sciences.

#### **Pure Sciences**

Pure sciences are the study of natural occurrences as dictated by the law of nature. Pure sciences can be divided into 3 subgroups: physical science, biological science, and a combination of physical science and biological science.

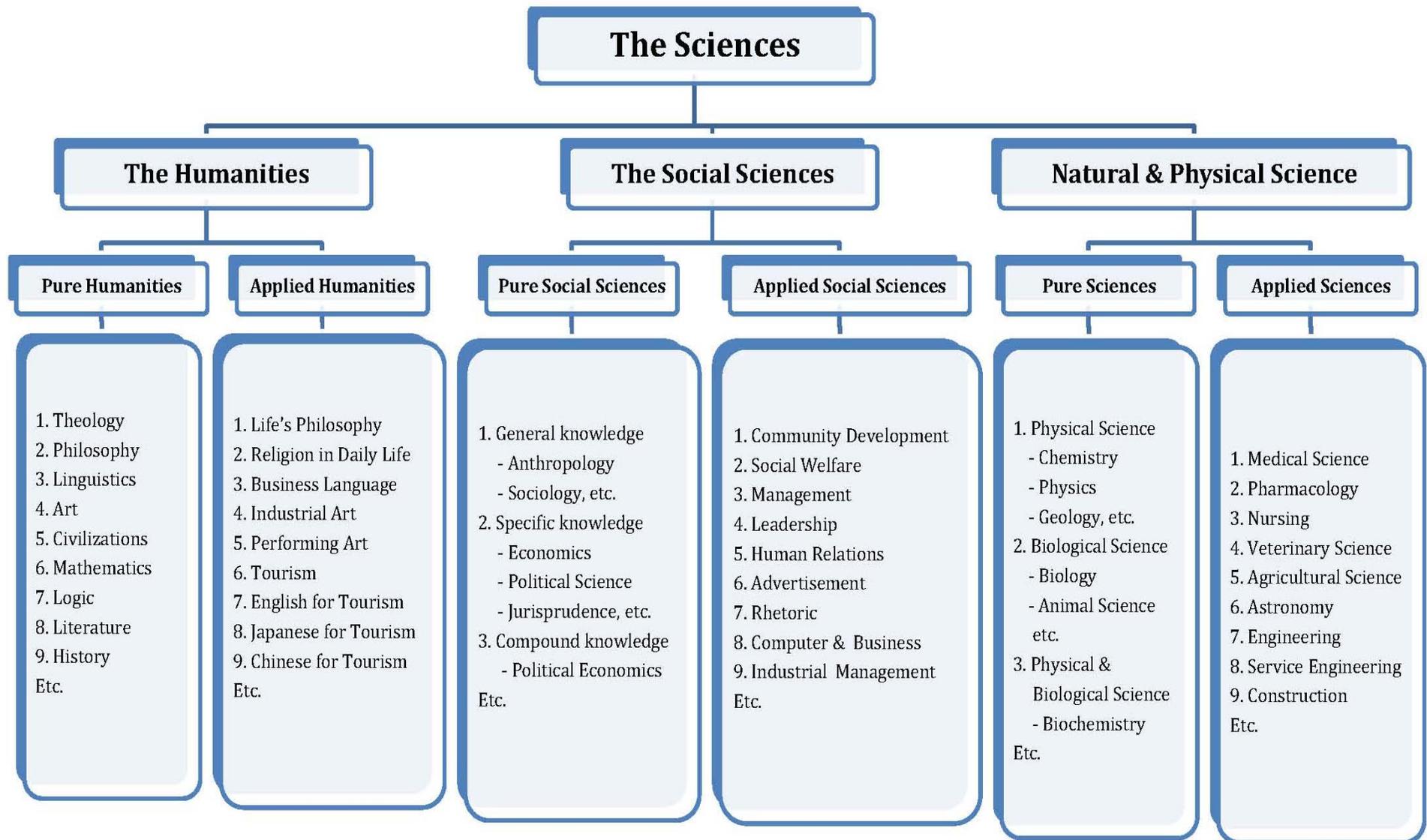
- 1) Physical Science: It is the study of inanimate objects such as soil, water, stone, minerals in such fields as chemistry, physics, geology, metallurgy, etc.
- 2) Biological Science: It is the study of animate objects such as human beings, animals, plants, germs in such fields as biology, botany, entomology, ornithology, animal science, etc.
- 3) A combination of physical science and biological science: It includes such fields as biochemistry, food science, food technology, biotechnology, etc.

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<sup>4</sup> Uraiwan Tanastit (2530 B.E.) "Principles of Humanities" p. 14

## **Applied Sciences**

These are the branches of knowledge which result from applying the knowledge contained in the pure sciences. These include medical science, nursing, pharmacology, public health, veterinary science, environmental engineering, service engineering, engineering management, construction, etc.



## 2.2 The Basic Tenets of the Sciences

As mentioned earlier, all of the sciences in the world can be put into three main categories. These include the humanities, the social sciences, and natural and physical science. Each category contains a large number of branches and sub-branches. Here, only the basic tenets of seven sciences will be mentioned. These include the humanities, political science, jurisprudence, economics, rhetoric, natural and physical science, and medical science.

### 2.2.1 The Humanities

#### 1) The Meaning of the Humanities

Humans have been studying the humanities since the time of Ancient Greece. The people of Ancient Greece believed that of all the amazing phenomena in the world, nothing could be compared to human beings. The word “humanities” comes from the Latin word “humanitas”, which means the human story or humanity.

Our knowledge about the humanities has increased a great deal since the time of Ancient Greece. Uraiwan Tanastit<sup>5</sup> defined the humanities as the branches of knowledge that deal with human beings and their self-expression. The humanities deal with human beings’ internal world such as the human mind, thoughts, feelings, ethics, communication, etc.

Wit Witsatavej defined the humanities as the branches of knowledge that deal with what human beings think, do, aspire to, imagine, and feel such as literature, art, theology, history. The humanities deal with human beings as we are and not as a species of animals as in biology or as social beings (as in the social sciences).<sup>6</sup> The humanities are the branches of knowledge that deal directly with humanity, its growth, and its happy coexistence...<sup>7</sup>

The Humanities were originally defined as the study that emphasizes the human mind, its awareness development, wisdom, and virtue. Today, the boundaries of the humanities have been extended to include a combination of knowledge and career in such a way as to equip each human being with the necessary knowledge and mental development that allow him to have a positive impact on society.<sup>8</sup>

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<sup>5</sup> Uraiwan Tanastit (2530 B.E.) “Principles of the Humanities” p. 13-14

<sup>6</sup> Wit Witsatavej (2528 B.E.) “The Study of the Humanities: Boundaries and Aim”, p. 31

<sup>7</sup> Orasa Taiyanon (2550 B.E.) “Technology and the Humanities” (online)

<sup>8</sup> The Humanities Department, Kasetsart University (2550 B.E.k) “The Humanities” (online)

## **2) General Attributes of the Humanities**

The humanities have five general attributes:

- 1) The main philosophy of the humanities is knowing the value of being human.
- 2) The main objective of the humanities is the search for the meaning and value of being human as well as the value of human experiences for the purposes of improving the quality of human life and solving human physical and mental problems.
- 3) The main method used in the study of the humanities has to do with applying logic to the interpretation and analysis of human experiences.
- 4) The use of analytical reflection to search for the meaning and value of what is being studied.
- 5) Since the field of the humanities is an intellectual exercise about human experiences, what must also be taken into account are the qualifications and experiences of those learnt in the humanities.<sup>9</sup>

The emphasis of the humanities is the human being itself. Therefore, knowledge in this field emphasizes the development of human virtue. A virtuous human being can be further trained to be a good and productive engineer, architect, government official, etc. Therefore, in the development of any country, human development must take precedence over all the other areas of development.

## **3) Different Branches of the Humanities**

The humanities consist of many different branches of knowledge such as linguistics, art, literature, history, philosophy, theology, etc.

### **3.1) Linguistics**

The study of languages is not merely for the purpose of obtaining a language skill but it is also for the purpose of understanding the thoughts, the feelings, and the core of creative works accumulated in that particular language.

### **3.2) Art and Literature**

Each branch of art requires a particular set of media for the expression of human emotions and thoughts. The art and literature of any culture allow us to understand the people and society of that culture.

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<sup>9</sup> Uraiwan Tanastit (2530 B.E.) “Principles of the Humanities” p. 17-18

### 3.3) History

History allows us to see past events and the pattern of these events. History gives us a glimpse of ourselves as a race. Since it is said that history repeats itself, the study of history helps us to avoid certain problems before they arise and solve certain problems once they have arisen.

Students of the humanities stand to benefit at least in three different ways: They learn about themselves. They learn about other people. And they learn about the environment in which they live.

## 2.2.2 Political Science

### 1) The Meaning of Political Science

Political science is the study of events and societal conduct in the areas of politics and government. Therefore, political science is the science that deals with politics and government. The term “political science” has its root in the German word “staatswissenschaft” which means “the science of nation-state”.

A “nation-state” is a political organization. A nation state is a state that self-identifies as deriving its political legitimacy from serving as a sovereign entity for a nation as a sovereign territorial unit. The state is a political and geopolitical entity; the nation is a cultural and/or ethnic entity. The term "nation state" implies that the two geographically coincide. Nation state formation took place at different times in different parts of the earth but has become the dominant form of state organization.<sup>10</sup>

### 2) Components of a Nation-State

According to political science, a nation-state must be made up of four components: population, defined territory, government, and sovereignty.

2.1) Population refers to the inhabitants of a nation-state who earn their livelihood inside the nation-state. They may have citizenship status or alien status.

2.2) Defined territory: A nation-state must have a defined territory.

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<sup>10</sup> Wikipedia, “Nation-state”

- 2.3) **Government:** It is a governing body which has the administrative power to rule the nation-state. Generally, there are three branches of government: the executive branch, the legislative branch, and the judicial branch. Government has two levels. The Policy Level, which includes the councils of ministers, the parliament, and the court of justice. And the Operations Level, which includes ministries, bureaus, departments, etc.
- 2.4) **Sovereignty:** The authority to freely govern the nation-state and operate its various branches within the nation-state and abroad. Sovereignty means having authority over the people, citizens and aliens alike. The exercise of authoritative powers is in the form of legislative laws.

The legislative branch has the power to pass, amend, and repeal laws. It consists of the council of ministers whose members are chosen by the people. The executive branch has the power to enforce the laws passed by the legislative branch. It consists of ministers and government officials. The judicial branch is in charge of the court system and consists of constitutional court, court of justice, administrative court, and military court.

### **3) Political System**

Once human beings left the natural way of life and came together to form a social unit, rules needed to be made and a political system needed to be established. The study of political systems has been ongoing for a millennium and some details are as follows.

#### **3.1) Past Political Systems**

Past political systems followed the concepts of Plato and Aristotle and can be divided into three systems. These include government by one individual, government by a group of individuals, and government by the majority or all individuals.

**Government by One Individual:** This is called absolute monarchy. Plato and Aristotle were of the opinion that absolute monarchy is the best form of government if a good and virtuous king can be found. Otherwise, great damage could be wrought by a bad and unethical king.

**Government by a Group of Individuals:** This is called aristocracy. These individuals are knowledgeable, capable, and high-born. Such individuals can either rule for the good of all the people or for the good of themselves and their cronies.

**Government by the Majority or All Individuals:** Plato called this form of government democracy. It is a system where the majority of individuals in the nation-state can exercise their right to govern. Aristotle saw democracy as government by the majority and for the majority.

### 3.2) Today's Political Systems

The political systems according to Plato's and Aristotle's concepts have been in use for centuries. However, today there are two major political systems. These include democracy and dictatorship.

#### Democracy

Democracy means government by the people; a form of government in which the supreme power is vested in the people and exercised directly by them or by their elected agents under a free electoral system.

##### The Basis of Democracy

- 1) In terms of logic, this political system believes that every human being is intelligent and logical. Therefore, they can come together to discuss and exchange ideas in such a way that different problems can be solved in a logical manner.
- 2) In terms of freedom, this political system holds that freedom is important because it allows human beings to exercise their awareness, intelligence, and logic to the fullest extent.
- 3) In terms of equality, every citizen in this political system has the right to vote and be protected by the law.
- 4) In terms of consensus, the people allow their elected representatives to work in the executive and legislative branches. And if these representatives go against the people's wishes, the people have the right to dismiss them and change the government.
- 5) In terms of the majority, ideally this political system seeks unanimous agreement but it does not happen in reality. Therefore, the majority vote is used instead.
- 6) In terms of the rule of law, legal principles must be in place to serve as the basis for governing the nation-state.

## **Dictatorship**

The concept of dictatorship is diametrically opposed to that of democracy. For example, dictatorship does not believe that every human being is intelligent, logical, and has the ability to solve his own problems. It does not believe in human rights, freedom, and equality. It believes that the power to rule belongs to the ruler and it is the general public's duty to obey the ruler. The dictatorship philosophy has to do with sole and absolute power.

### The Basis of Dictatorship

- 1) It limits the citizens' rights and freedom.
- 2) Sole and absolute power is in the hands of one individual or a group of individuals.
- 3) It uses a system of strict prevention and control.
- 4) One party exercises all three branches of government: the legislative branch, the executive branch, and the judicial branch.
- 5) It uses violence to remove every conflict. Dissenting groups are absolutely and violently eradicated.

## **2.2.3 Jurisprudence**

### **1) The Meaning of Jurisprudence**

Jurisprudence is the study and theory of law. Law serves three ideals: justice, peace and order, and usefulness.

### **2) The Origin of Law**

There are two types of law: Legislated laws and unwritten laws. Legislated laws involve the rule of law whereas unwritten laws involve traditional laws, general laws, and case laws or Judge made laws.

#### **a. Legislated Laws**

These are the laws that result from the legislative process or laws that are written down as clauses. Three sections of the government have the power to legislate laws. These include the legislative branch, the executive branch, and independent entities.

- 1) Laws enacted by the legislative branch are called bills or acts of legislation.

According to the 2540 B.E. Constitution of the Kingdom of Thailand, Acts 169-178, the legislative process begins with the bill's introduction to the Council of Ministers or members of the House of Representatives and ends with its codification into Thai law.

The introduction of any Bill must be endorsed by at least 20 members of the House of

Representatives. If it is a money Bill, it must be endorsed by the Prime Minister. Before being approved by His Majesty the King, the Bill must traverse a maze of tough scrutiny both inside and outside the National Assembly<sup>11</sup>. Once the Bill has been approved by the National Assembly, it submits the Bill to His Majesty the king. Having been signed by His Majesty the king, the Bill is finally passed into law. And the new law is subsequently published in the Royal Thai Government Gazette.<sup>12</sup>

2) Laws enacted by the administrative section: There are two categories: Royal Act and Secondary Law

“Royal Act” is a law that under certain circumstances the Constitution allows the Council of Ministers to enact in the place of the legislative branch. Therefore, a Royal Act has the power to enforce just as much as a Bill does, and it can be amended or canceled.

“Secondary Law” is a law that the legislative branch allows the administrative section to enact according to the particular Bill. Secondary Law cannot go against the Bill and it includes a royal decree, ministerial regulation, ministerial announcements, and different regulations.

3) Laws enacted by independent entities: These are the laws enacted by independent public organizations which have the authority to self-govern. These include municipality, sanitation, provincial administrative organization, sub-district administrative organization, etc. These self-governing organizations have the powers to enact their own laws to govern the conduct of the people under their jurisdiction. Other independent organizations such as state university have the powers to enact their own laws.

Written laws have the following hierarchy:

- 1) Constitutional law serves as the model scheme for all the laws. Therefore, every enacted law must not violate the Constitution.
- 2) The Bills assume a position second to the Constitution because they are enacted through the powers of the Constitution.

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<sup>11</sup> The National Assembly or the Parliament of Thailand is the legislative branch of the government. The National Assembly of Thailand is a bicameral body, consisting of two chambers: the upper house, (the Senate of Thailand), and the lower house, (the House of Representatives of Thailand). The Assembly is composed of 650 members: 500 Representatives (MPs) and 150 Senators.

<sup>12</sup> The Royal Thai Government Gazette is a public journal or newspaper of record of Thailand. Laws passed by the Government generally come into force after being published in the Gazette, which is printed by the Cabinet and Royal Gazette Publishing House.

- 3) The Royal Acts come in third. These are the laws enacted by the administrative section in order to provide order, guidelines, and conditions for the different parts of the government.
- 4) Ministerial Regulations come in fourth. These are the laws enacted by the minister of each ministry using the Bill and the Royal Act as their model scheme in order to provide regulations, methods, and conditions relevant to the work of the ministry.
- 5) Laws enacted by independent entities: These include local laws such as municipal by-laws, provincial laws, Bangkok Metropolitan laws, sanitation laws, etc.

#### **b. Unwritten Laws**

These are the laws of society and have the powers of legislated laws. They include traditional laws, general laws, and case laws.

##### **Traditional Laws**

In order for a tradition to become a law, it must have the following two characteristics.

- 1) The tradition has been routinely practiced by the people for a very long time.
- 2) The people believe such tradition to be correct; and therefore, must be practiced.

##### **General Laws**

These can be found in the nation-state's written laws. They include criminal laws and civil laws or other written laws that can be used to judge a particular case. One particular civil law states that if a traditional law does not exist, the case will be judged using a relevant written law. And if the relevant written law does not exist, then the case should be judged using a general law of relevance.

##### **Case Laws or Judge Made Laws**

Case law is the set of existing rulings which made new interpretations of law and, therefore, can be cited as precedent. Rulings according to the Civil Law in the European and Asian legal system such as France, Germany, Spain, Japan, Korea, and Thailand are not considered to be the origin of law.

### **3) Categories of Law**

There are four categories of law: Public Law, Private Law, Social Law, and Economic Law.

**Public Law** is the set of legal principles which govern the exercise of power by public bodies. Public Law includes Constitutional Law, Administrative Law, Criminal Law Rulings, Civil Law Rulings, Court Organization, and Public International Law.

**Private Law** includes Civil Law, Commercial Law, and Private International Law.

- 1) Civil Law is a set of legal principles which govern the relationship between individuals in terms of debt, family fortune, and inheritance.
- 2) Commercial Law is a set of legal principles which govern the business world such as partnership, insurance company, promissory note, maritime law, etc. In Thailand, Civil Law and Commercial Law are grouped together as Civil and Commercial Code.
- 3) Private International Law is a set of legal principles which govern individuals of different nationalities.

**Social Law** is a set of legal principles that involve Public Law and Private Law. These include Labor Law, Social Security Law, etc. Social laws are legislated for the peace, happiness, and justice of society.

**Economic Law** is a set of legal principles that involve economic activities and their control, guidance, and promotion.

#### **4) The Application of Law**

The application of law is finding the law, ascertaining which of the many rules in the legal system is to be applied to a particular controversy. When it is a court case, the judge considers the details of the case and sees which of the laws is to be applied. There are four steps to the application of law.

- 1) Check the details of the case and the relevant proof to see if they are true.
- 2) Once the details have been checked out, it is time to ascertain which of the many rules in the legal system can be applied to the case.
- 3) Analyze whether the details of the case fit the particular law to be applied.
- 4) If a particular law can be applied, ascertain what outcome is dictated by the law.

If different outcomes are stated in the law then the person applying the law has to exercise his judgment in selecting a certain outcome for the case involved.

#### **The Order in which the Law Is Applied**

According to the Civil and Commercial Code, Article 4, written law must be applied first. If written law does not exist for a particular case, then one must use local Traditional Law. If local Traditional Law does not exist, then one must revert to the written law and adjust it to fit the case in the best possible way. If no suitable and just outcome can be derived from the exercise, the last step is to use General Laws.

## 2.2.4 Economics

### 1) The Meaning of Economics

The term “economics” comes from the Greek word “oikos” which means household and the word “nomos” which means regulation. The term “economy” comes from the Greek word “oikos” which means house and the word “nemien” which means management. Therefore, economy means the management of a home.<sup>13</sup> As one can see, the meaning of economics and economy is quite similar.

Alfred Marshall defined economics as the study of human behavior at the personal and social levels when conducting economic activities for their livelihood and happiness.<sup>14</sup> Economics is the study of economy.

Wanarak Mingmaneeenakin defined economics as a science that studies the means of using limited production resources to produce merchandise and services to serve the unlimited want of human beings in such a way as to provide the maximum benefit.<sup>15</sup>

The term “resources” means material wealth. They include things that have visible forms such as money, house, land, etc., or things that have no visible forms such as wisdom or Ariya wealth<sup>16</sup>. Production resources mean resources that are used to produce goods and services. They include land, labor, funds, as well as the entrepreneur himself.

### 2) Types of Economics

2.1) Macroeconomics is the study of the entire or national economic system such as national income, the relationship between income and consumption, the relationship between income and savings, investment, level of employment, government spending, economic growth, domestic economic development, etc.

2.2) Microeconomics is the study of units such as household, business, company, shop, pricing of each kind of goods, cost, production volume of each kind of goods, pricing of factors of productions, etc.

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<sup>13</sup> Jarin Tedvanich (2531 B.E.) “Basic Principles of Economics” p. 2

<sup>14</sup> Narong Tanavipad (2542 B.E.) “Basic Economics” p. 10

<sup>15</sup> Wanarak Mingmaneeemakin (2541 B.E.) “Basic Economics” p. 2

<sup>16</sup> The Royal Institute (2525 B.E.) “Dictionary” (electronic version)

### **3) The Aim of Economics**

Its highest aim especially at the macroeconomic level is to maximize social welfare. That is, the aim is to achieve good domestic economy in terms of full employment, continuous economic growth, wide distribution of income to every person and every household, solving poverty problem, etc.

### **4) Demand and Supply**

4.1 Demand represents the amount of some good that buyers are willing and able to purchase at a particular time. Generally, when the price of the good increases, the demand for the good decreases.

4.2 Supply is the quantity of some good to be sold at a particular time. Generally, when the price of the good increases, the seller will gladly sell a larger quantity of the good.

Whenever the demand for some good exceeds supply, its price will increase. Conversely, the price of some good will decrease whenever the supply exceeds demand. These processes will continue until market reaches the point of equilibrium where demand equals supply. Supply and demand is an economic model of price determination in a market.

### **5) Economic System**

Economic System is an organized way in which a state or nation allocates its resources and apportions goods and services in the national community. Some important economic systems include capitalism, socialism, and mixed economic system.

#### **5.1) Capitalism**

Capitalism is an economic system that is based on private ownership of the means of production and the creation of goods or services for profit.<sup>17</sup> Capitalism has the following characteristics.

- 1) Private owner of the factors of production and other kinds of material wealth who has the freedom and the right to spend his material wealth any way he chooses.
- 2) The business owner has the power to make decisions about every step of the production process from starting the business, choosing production resources, production method, and the pricing of his goods and services.

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<sup>17</sup> Wikipedia “Capitalism”

- 3) Economic activity proceeds through the pricing mechanism or market mechanism. That is, the business owner makes decisions to produce goods and services according to market demand based on profits. Therefore, profit is the most important element of capitalism.
- 4) A cash rich producer may be able to create a monopoly situation where he can expand production capacity in order to cut cost. A producer with less cash cannot do likewise, thus, making his goods more expensive and less attractive to the market. If demand for his goods becomes too low, he may have to close down his business altogether.
- 5) There is no equity in the distribution of income. That is, under capitalism a small group of people are extremely wealthy but the majority of the people range from being well-off to being poor.
- 6) This allows capitalists to dominate government policy through their financial clout.

## 5.2) Socialism<sup>18</sup>

Socialism is an economic system characterized by public ownership of the means of production and co-operative management of the economy, and a political philosophy advocating such a system. Socialism aims to lessen the shortcomings inherent in capitalism especially because some wealthy business owners can take unfair advantage of the masses. There are three main forms of socialism: Utopian Socialism, Democratic Socialism, and Marxism or Communism.

### 1) Utopian Socialism

Utopian socialism is a label ascribed to earlier socialists whose emphasis was on designing or imagining ideal forms of society where every human being is equal socially, economically, and politically. Utopian socialism is the ideal form of society where people work together and help each other to create a happy society devoid of conflicts and competition.

### 2) Democratic Socialism

Modern democratic socialism is a broad political movement that seeks to propagate the ideals of socialism within the context of a democratic system. Democratic socialism generally refers to any political movement that seeks to establish an economy based on economic democracy by and for the working class.

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<sup>18</sup> Wikipedia "Socialism"

### **3) Marxism**

This form of socialism is generally known as Communism where the nation-state owns everything including all the factors of production. There is no private ownership of businesses. The nation-state plans, makes decisions, and takes charge of the nation-state's economy. The people within the nation-state produce goods for no profit in accordance with the nation-state's planning. Under this economic system, there is no freedom and there is no competition.

### **5.3) Mixed Economic System<sup>19</sup> or Mix Economy**

It is an economic system that includes a mixture of capitalism and socialism. This type of economic system includes a combination of private economic freedom and centralized economic planning and government regulation. In such a system, the government usually dominates over public services such as health, communications, banking, transportation and other similar fields. The majority of countries today employ this economic system.

## **2.2.5 Rhetoric**

### **1) What Is Rhetoric?**

According to Brigham University<sup>20</sup>, Rhetoric is the study of effective speaking and writing. Rhetoric is the art of persuasion and many other things.

In its long and vigorous history rhetoric has enjoyed many definitions, accommodated differing purposes, and varied widely in what it included. And yet, for most of its history it has maintained its fundamental character as a discipline for training students 1) to perceive how language is at work orally and in writing, and 2) to become proficient in applying the resources of language in their own speaking and writing.

Discerning how language is working in others' or one's own writing and speaking, one must (artificially) divide form and content, what is being said and how this is said. Because rhetoric examines so attentively the how of language, the methods and means of communication, it has sometimes been discounted as something only concerned with style or appearances, and not with the quality or content of communication. For many (such as Plato) rhetoric deals with the superficial at best, the deceptive at worst ("mere rhetoric"),

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<sup>19</sup> Investopedia (online)

<sup>20</sup> The Forest of Rhetoric – Brigham Young University

when one might better attend to matters of substance, truth, or reason as attempted in dialectic or philosophy or religion.

Rhetoric has sometimes lived down to its critics, but as set forth from antiquity, rhetoric was a comprehensive art just as much concerned with what one could say as how one might say it. Indeed, a basic premise for rhetoric is the indivisibility of means from meaning; how one says something conveys meaning as much as what one says. Rhetoric studies the effectiveness of language comprehensively, including its emotional impact, as much as its propositional content. To see how language and thought worked together, however, it has first been necessary to artificially divide content and form.

## **2) The Communication Process**

According to Management Study Guide,<sup>21</sup> Communication is a process of exchanging verbal and non-verbal messages. It is a continuous process. Pre-requisite of communication is a message. This message must be conveyed through some medium to the recipient. It is essential that this message must be understood by the recipient in same terms as intended by the sender. He must respond within a time frame. Thus, communication is a two way process and is incomplete without a feedback from the recipient to the sender on how well the message is understood by him.

The main components of communication process are as follows:

1. Context - Communication is affected by the context in which it takes place. This context may be physical, social, chronological or cultural. Every communication proceeds with context. The sender chooses the message to communicate within a context.
2. Sender / Encoder - Sender / Encoder is a person who sends the message. A sender makes use of symbols (words or graphic or visual aids) to convey the message and produce the required response. For instance, a training manager conducting training for new batch of employees. Sender may be an individual or a group or an organization. The views, background, approach, skills, competencies, and knowledge of the sender have a great impact on the message. The verbal and non-verbal symbols chosen are essential in ascertaining interpretation of the message by the recipient in the same terms as intended by the sender.

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<sup>21</sup> [www.managementstudyguide.com](http://www.managementstudyguide.com)

3. **Message** - Message is a key idea that the sender wants to communicate. It is a sign that elicits the response of recipient. Communication process begins with deciding about the message to be conveyed. It must be ensured that the main objective of the message is clear.
4. **Medium** - Medium is a means used to exchange / transmit the message. The sender must choose an appropriate medium for transmitting the message else the message might not be conveyed to the desired recipients. The choice of appropriate medium of communication is essential for making the message effective and correctly interpreted by the recipient. This choice of communication medium varies depending upon the features of communication. For instance - Written medium is chosen when a message has to be conveyed to a small group of people, while an oral medium is chosen when spontaneous feedback is required from the recipient as misunderstandings are cleared then and there.
5. **Recipient / Decoder** - Recipient / Decoder is a person for whom the message is intended / aimed / targeted. The degree to which the decoder understands the message is dependent upon various factors such as knowledge of recipient, their responsiveness to the message, and the reliance of encoder on decoder.
6. **Feedback** - Feedback is the main component of communication process as it permits the sender to analyze the efficacy of the message. It helps the sender in confirming the correct interpretation of message by the decoder. Feedback may be verbal (through words) or non-verbal (in form of smiles, sighs, etc.). It may take written form also as in memos, reports, etc.

### **3) Communication Principles**

According to Exploring HR Management,<sup>22</sup> there are seven communication principles.

To compose effective message you need to apply certain specific communication principles. They tie closely with the basic concepts of the communication process and are important for both written and oral communications. Called the “seven C’s”, they are: completeness, conciseness, consideration, concreteness, clarity, courtesy, and correctness.

#### **(1) Completeness**

Your message is "complete" when it contains all facts the reader or listener needs for the reaction you desire. Remember that communicators differ in their mental filters; they are influenced by their backgrounds, viewpoints, needs, attitudes, status, and emotions.

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<sup>22</sup> [www.exploreHR.org](http://www.exploreHR.org)

**(2) Conciseness**

A concise message saves time and expense for both sender and receiver. Conciseness is saying what you have to say in the fewest possible words without sacrificing the other C qualities. Conciseness contributes to emphasis. By eliminating unnecessary words, you help make important ideas stand out.

**(3) Consideration**

Consideration means that you prepare every message with the recipient in mind and try to put yourself in his or her place. Try to visualize your readers (or listeners)—with their desires, problems, circumstances, emotions, and probable reactions to your request. Then handle the matter from their point of view. This thoughtful consideration is also called "you-attitude," empathy, the human touch, and understanding of human nature.

In a broad but true sense, consideration underlies the other six C's of good communication. You adapt your language and message content to your receiver's needs when you make your message complete, concise, concrete, clear, courteous, and correct.

**(4) Concreteness**

Communicating concretely means being specific, definite, and vivid rather than vague and general.

**(5) Clarity**

Clarity means getting your message across so the receiver will understand what you are trying to convey. You want that person to interpret your words with the same meaning you have in mind. Accomplishing that goal is difficult because individual experiences are never identical, and words have different meanings to different persons.

**(6) Courtesy**

Courteous messages help to strengthen present friendships, as well as make new friends. Courtesy stems from sincere you-attitude. It is not merely politeness with mechanical insertions of "please's" and "thank-you's."

**(7) Correctness**

The correctness principle comprises more than proper grammar, punctuation, and spelling. A message may be perfect grammatically and mechanically but still insult the listener and fail to achieve its purpose. Correctness means using the right level of language in presenting accurate facts.

#### 4) How to Deliver an Effective Speech

There are at least eight steps to delivering an effective speech. These include choosing the topic, knowing the audience, setting a clear objective, researching the material, writing the speech, rehearsing the speech, giving the speech, analyzing and evaluating the speech.

##### (1) Choosing the topic

The topic chosen must be suitable to the audience, the place, and the occasion. One must be aware of what one is trying to accomplish with one's speech, and how to research the relevant material.

##### (2) Knowing the audience

Without a good knowledge of the audience in terms of age, gender, education, interest, attitude, socio-economic status, etc., it will not be possible to gear the content of the speech to the audience.

##### (3) Setting a clear objective

One must have a clear objective in mind when giving a speech; otherwise, the exercise will be useless. Generally, there are three objectives in giving a speech: to give knowledge, to influence, and to entertain.

##### (4) Researching the material

One must carry out a thorough research of what one will be talking about in terms of facts, statistics, etc.

##### (5) Writing the speech

There are three parts to a speech: introduction, body, and conclusion.

**Introduction:** If the speech can be compared to a meal, then the introduction is the appetizer. The introduction should provide the relevant background information. It should be precise and contain attention-grabbing phrases. The time spent on the introduction should be about 10% of the total time.

**Body:** This is the main part of the speech and should take about 85% of the total time. The information should be presented in an orderly and stepwise fashion to make it easy for the audience to follow. The contents must be accurate, precise, and concise. They should also contain examples that the audience can relate to.

**Conclusion:** The concluding part is used to summarize the contents of the speech as well as emphasizing certain points. This part should take about 5% of the total time.

### **(6) Rehearsing the speech**

It is very important to rehearse the speech beforehand. This way, it allows the speaker to become familiarized with the contents of the speech as well as knowing how long it will take to deliver it.

### **(7) Giving the Speech**

Having rehearsed the speech, one is now ready to deliver it in an easy and comfortable manner. Short notes may or may not be used.

### **(8) Analyzing and evaluating the performance**

It is a good practice to analyze and evaluate one's performance after each speech so that one can continue to make improvements.

## **2.2.6 Natural and Physical Science**

### **1) What Is Science?**

The word "science" comes from the Latin word "scientia" which means knowledge.

According to Wikipedia,<sup>23</sup> science is a systematic enterprise that builds and organizes knowledge in the form of testable explanations and predictions about the universe. In an older and closely related meaning, "science" refers to the body of reliable knowledge itself, of the type that can be logically and rationally explained. In modern use, "science" more often refers to a way of pursuing knowledge, not only the knowledge itself. Science is often treated as synonymous with 'natural and physical science'.

### **2) Scientific Method<sup>24</sup>**

There are five steps to the scientific method: observation, generating a model, formulating a hypothesis, designing an experiment, and forming a scientific theory.

Based on observations of a phenomenon, scientists may generate a model. This is an attempt to describe or depict the phenomenon in terms of a logical, physical or mathematical representation. As empirical evidence is gathered, scientists can suggest a hypothesis to explain the phenomenon. Hypotheses may be formulated using principles such as parsimony (also known as "Occam's Razor") and are generally expected to seek consilience—fitting well with other accepted facts related to the phenomena. This new explanation is used to make falsifiable predictions that are testable by experiment or observation. When a hypothesis proves unsatisfactory, it is either modified or discarded. Experimentation is especially

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<sup>23</sup> Wikipedia "Science"

<sup>24</sup> Ibid

important in science to help establish causal relationships (to avoid the correlation fallacy).

### 3) Scientific Knowledge

There are six main types of scientific knowledge:

- 1. Fact:** Event, phenomena, statement or information accepted to be true based on empirical evidence (for examples, the speed of light, the nucleus of an atom consists of protons and neutrons, etc.)
- 2. Concept:** Idea or group of ideas (construct), object or process (for examples density, force, momentum, etc.)
- 3. Hypothesis:** General/conjectural statement of the relationship between two or more variables anticipated to be true but has to be proven empirically (for example, the longer the length of the pendulum, the longer its period of oscillation)
- 4. Principle:** Generalized concept which links together a number of other concepts (for example, Archimedes principle)
- 5. Theory:** Connected/interrelated statements, concepts or principles which are generalized (have to be verified by experiment) to describe, explain and predict a phenomena.
- 6. Law:** Principle which is repeatedly and empirically proven to be true but its truthfulness may not be absolute (for examples, Boyle's law, Charles' law, Newton's law, etc.). In other words, it is a relative truth!

### 4) Scientific Attitudes

Attitude is an expression of favor or disfavor toward a person, place, thing or event. According to [wiki.answers.com](http://wiki.answers.com), a scientist should possess at least seven attitudes.

1. A scientist must be curious about the world: Galileo's curiosity about the heavenly bodies made him the first person to use a telescope to study the moon, the sun, the planets and the stars.
2. A scientist is logical and systematic: Among the reasons why Gregor Mendel discovered the principles of heredity when others have failed was his logical experimental methods and his careful and accurate record keeping.
3. A scientist is open-minded: An open-minded person is one who can modify plans or discard hypotheses if necessary. One such person was Johannes Kepler who was hired to develop evidence that planets moved along perfect circles.

4. A scientist is intellectually honest: Isaac Newton built his laws of motion on the previous work of Galileo and others.
5. A scientist works hard and is persistent: Marie Curie was the first person ever to be awarded the Nobel Prize twice. It was not surprising considering how hard she worked.
6. A scientist does not jump to conclusions: John Dalton's atomic theory was backed by experimental evidence. He was not the first to propose that the atom was the smallest particle of matter, but he was the first to use experimental evidence to support his theory.
7. A scientist is a creative and critical thinker: Albert Einstein was able to derive his theory of relativity because he went beyond what was given and known at that time. He saw links and connections where others did not. He looked at things from different perspectives.

### **2.2.7 Medical Science or Medicine**

#### **1) What Is Medicine?**

Medicine or conventional medicine is the applied science or practice of the diagnosis, treatment, and prevention of disease.<sup>25</sup> It encompasses a variety of healthcare practices evolved to maintain and restore health by the prevention and treatment of illnesses in human beings. The various specialties in medicine include internal medicine, surgery, obstetrics, etc.

Alternative medicine is any practice claiming to heal "that does not fall within the realm of conventional medicine."<sup>26</sup> Alternative medicine includes Ayurveda, Chinese medicine, Homeopathy and Naturopathy.

#### **2) Conventional Medicine**

Medical scientists have two different viewpoints when it comes to conventional medicine: Mechanical Materialism and Holism.

##### **(2.1) Mechanical Materialism**

According to this model, the human body is viewed as a mechanical entity that can be explained using the methods of natural sciences especially physics and chemistry. For research and therapeutic purposes, the human body is divided into different parts.

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<sup>25</sup> Oxford English Dictionary

<sup>26</sup> Bratman, MD, Steven (1997). *The Alternative Medicine Sourcebook*. Lowell House. p. 7. [ISBN 978-1-56565-626-0](#).

Biophysicists believe that each living being, human included, is the coming together of energy. Therefore, when cells can effectively exchange energy with each other, good health is the result. But when the process is thwarted, the body gets sick. Treatment requires that the effective exchange of energy among the cells be restored.

Mechanical Materialism divides the human body into body and mind. The human body belongs to the field of biology whereas the human mind belongs to the field of psychology. There is a special branch of knowledge for each of the human organs such as the eye, ear, nose, heart, etc. Hence, there is a specialist to treat each part of the body.

The human mind is viewed more like a piece of machinery in that it is devoid of feeling, thought, intention, and purpose. When a certain part of the human body is damaged, only that part is repaired. This approach helps the health sciences to make great advances.

## **(2.2) Holism**

The human body is viewed as composing of two parts: body and mind but the two entities cannot be separated. Life cannot be understood using the methods of physics and chemistry alone but it has to be understood as a whole since the body and the mind are connected.

Moreover, other factors such as society, culture, and ecology are also taken into account when treating an illness. In holistic medicine, social condition, economic condition, politics, culture, and ecology are deemed important to one's health. This results in the birth of various medicine-related sciences such as medical sociology, medical anthropology, medical economics, and medical ethics.

## **3) Alternative Medicine<sup>27</sup>**

The National Center of Complementary And Alternative Medicine (NCCAM) in the United States divides alternative medicine into five different groups as follows.

### **(1) Alternative Medical Systems**

Alternative medical systems are built upon complete systems of theory and practice. Often, these systems have evolved apart from and earlier than the conventional medical approach used in the United States. Examples of alternative medical systems include:

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<sup>27</sup> Cathy Wong, About.com Guide (online)

- Acupuncture
- Ayurveda
- Homeopathy
- Native American healing practices
- Naturopathic medicine
- Tibetan medicine
- Traditional Chinese medicine

## **(2) Mind-Body Interventions**

Mind-body medicine uses a variety of techniques designed to enhance the mind's capacity to affect bodily function and symptoms. Some techniques that were considered alternative in the past have become mainstream (for example, patient support groups and cognitive-behavioral therapy).

Other mind-body techniques are still considered alternative, including:

- Art therapy
- Biofeedback
- Dance therapy
- Guided imagery
- Humor therapy Hypnotherapy
- Meditation
- Music therapy
- Prayer therapy
- Yoga

## **(3) Biologically-Based Therapies**

Biologically based therapies in complementary and alternative medicine use substances found in nature, such as herbs, foods, and vitamins. Some examples include:

- Diet
- Dietary supplements
- Herbal products
- Megavitamins

It also includes the use of other so-called natural but as yet scientifically unproven therapies (for example, using shark cartilage to treat cancer).

#### **(4) Manipulative and Body-Based Methods**

Manipulative and body-based methods in complementary and alternative medicine are based on manipulation and/or movement of one or more parts of the body. Some examples include:

- Acupressure
- Alexander Technique
- Chiropractic
- Feldenkrais Method
- Massage therapy
- Osteopathy
- Reflexology
- Rolfing
- Therapeutic Touch
- Trager Approach

#### **(5) Energy Therapies**

Energy therapies involve the use of energy fields. They are of two types:

Biofield therapies are intended to affect energy fields that purportedly surround and penetrate the human body. The existence of such fields has not yet been scientifically proven. Some forms of energy therapy manipulate biofields by applying pressure and/or manipulating the body by placing the hands in, or through, these fields. Examples include:

- Qi gong
- Reiki
- Therapeutic Touch

Bioelectromagnetic-based therapies involve the unconventional use of electromagnetic fields, such as:

- Pulsed fields
- Magnetic fields
- Alternating-current or direct-current fields

### **ASSIGNMENTS**

After you have finished studying this chapter, complete the test and the exercises provided in the workbook before proceeding to the next chapter.

# **Chapter 3**

## **Basic Knowledge about the Universe**

## Chapter 3

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### Basic Knowledge about the Universe

#### 3.1 What Is the Universe?

#### 3.2 Important Theories about the Universe

3.2.1 Theory of Relativity

3.2.2 Quantum Theory

3.2.3 Evolution Theory

#### 3.3 The Universe: Its Birth and Basic Structure

3.3.1 The Birth of the Universe

3.3.2 Basic Structure of the Universe

#### 3.4 Black Hole

3.4.1 The Meaning and History of Black Hole

3.4.2 The Gigantic Black Hole at the Center of the Milky Way

3.4.3 Time and the Black Hole

#### 3.5 The Genome

## Concepts

1. The universe is commonly defined as the totality of existence, including planets, stars, galaxies, the contents of intergalactic space, and all matter and energy.<sup>1</sup>
2. The Quantum Theory or Quantum Mechanics is a subset of physics explaining the physical behaviors at atomic and sub-atomic levels. In the field of physics, relativity catalyzed and added an essential depth of knowledge to the science of elementary particles and their fundamental interactions, along with ushering in the nuclear age. With relativity, cosmology and astrophysics predicted extraordinary astronomical phenomena such as neutron stars, black holes, and gravitational waves. These two theories have been the basic theories used to explain phenomena in the universe. The theory used to explain life in the universe is the Evolution Theory.
3. The Big Bang theory is the prevailing cosmological model that describes the early development of the universe. According to the Big Bang theory, the universe was once in an extremely hot and dense state and it expanded rapidly. This rapid expansion caused the universe to cool and resulted in its continuously expanding state. The center of the universe is called the “Singularity” point.
4. The universe can be divided into three main parts: the galaxy, clusters of galaxies, and super-clusters of galaxies.
5. A black hole is a region of space-time where gravity prevents anything, including light, from escaping. The theory of general relativity predicts that a sufficiently compact mass will deform space-time to form a black hole.
6. In modern molecular biology and genetics, the genome is the entirety of an organism's hereditary information. It is encoded either in DNA or, for many types of virus, in RNA. The genome includes both the genes and the non-coding sequences of the DNA/RNA.

## Objectives

To enable the student to gain some understanding about the universe such as what is the universe, the theories used to explain the universe, the birth and the basic structure of the universe, black holes, and the Genomes.

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<sup>1</sup> Wikipedia, “The universe”

## Chapter 3

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### Basic Knowledge about the Universe

#### 3.1 What Is the Universe?

The Universe is commonly defined as the totality of existence, including planets, stars, galaxies, the contents of intergalactic space, and all matter and energy.

Space is the boundless, three-dimensional extent in which objects and events occur and have relative position and direction.<sup>2</sup> Astronomers estimate that the diameter of the Universe is around 28,000 million light years.

Inflation Theory is an extension of the Big Bang model. It was created to answer certain questions that arose from observations inconsistent with or unexplained by the Big Bang. Basically, Inflation Theory talks about a period of very rapid expansion before a relatively gradual one.<sup>3</sup>

The Big Bang Theory is consistent with many observations that we have today like the movement of galaxies away from each other (expansion), confirmed by red shifts, and the detection of the CMBR (Cosmic Microwave Background Radiation). However, there are other observations that do not fit into the puzzle. Inflation Theory provides the necessary adjustments to make them fit into the Big Bang model.<sup>4</sup>

#### 3.2 Important Theories about the Universe

There are two important theories that scientists have used to explain the Universe.

##### 3.2.1 Theory of Relativity

##### 3.2.2 The Quantum Theory

The Quantum Theory or Quantum Mechanics is a subset of physics explaining the physical behaviors at atomic and sub-atomic levels. In the field of physics, relativity catalyzed and added an essential depth of knowledge to the science of elementary particles and their fundamental interactions, along with ushering in the nuclear age. With relativity, cosmology and astrophysics predicted extraordinary astronomical phenomena such as neutron stars,

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<sup>2</sup> Britannica Online Encyclopedia: Space

<sup>3</sup> [www.universetoday.com](http://www.universetoday.com), Inflation Theory

<sup>4</sup> *ibid*

black holes, and gravitational waves. These two theories have been the basic theories used to explain phenomena in the universe. The theory used to explain life in the universe is the Theory of Evolution.

### 3.2.3 Theory of Evolution

Evolution is the change in the inherited characteristics of biological populations over successive generations. Evolutionary processes give rise to diversity at every level of biological organization, including species, individual organisms and molecules such as DNA and proteins.<sup>5</sup>

### 3.2.1 Theory of Relativity

A Brief History of the Theory of Relativity<sup>6</sup> :

The Theory of Relativity, proposed by the physicist Albert Einstein (1879-1955) in the early part of the 20<sup>th</sup> century, is one of the most significant scientific advances of our time. Although the concept of relativity was not introduced by Einstein, his major contribution was the recognition that the speed of light in a vacuum is constant and an absolute physical boundary for motion. This does not have a major impact on a person's day-to-day life since we travel at speeds much slower than light speed. For objects travelling near light speed, however, the theory of relativity states that objects will move slower and shorten in length from the point of view of an observer on Earth. Einstein also derived the famous equation,  $E = mc^2$ , which reveals the equivalence of mass and energy.

When Einstein applied his theory to gravitational fields, he derived the "curved space-time continuum" which depicts the dimensions of space and time as a two-dimensional surface where massive objects create valleys and dips in the surface. This aspect of relativity explained the phenomena of light bending around the sun, predicted black holes as well as the Cosmic Microwave Background Radiation (CMB) -- a discovery rendering fundamental anomalies in the classic Steady-State hypothesis. For his work on relativity, the photoelectric effect and blackbody radiation, Einstein received the Nobel Prize in 1921.

Theory of Relativity – The Basics<sup>7</sup>

Physicists usually dichotomize the Theory of Relativity into two parts.

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<sup>5</sup> Wikipedia, Evolution

<sup>6</sup> [www.allaboutscience.org/theory of relativity](http://www.allaboutscience.org/theory_of_relativity)

<sup>7</sup> Ibid

The first is the Special Theory of Relativity, which essentially deals with the question of whether rest and motion are relative or absolute, and with the consequences of Einstein's conjecture that they are relative.

The second is the General Theory of Relativity, which primarily applies to particles as they accelerate, particularly due to gravitation, and acts as a radical revision of Newton's theory, predicting important new results for fast-moving and/or very massive bodies. The General Theory of Relativity correctly reproduces all validated predictions of Newton's theory, but expands on our understanding of some of the key principles. Newtonian physics had previously hypothesized that gravity operated through empty space, but the theory lacked explanatory power as far as how the distance and mass of a given object could be transmitted through space. General relativity irons out this paradox, for it shows that objects continue to move in a straight line in space-time, but we observe the motion as acceleration because of the curved nature of space-time.

Einstein's theories of both special and general relativity have been confirmed to be accurate to a very high degree over recent years, and the data has been shown to corroborate many key predictions; the most famous being the solar eclipse of 1919 bearing testimony that the light of stars is indeed deflected by the sun as the light passes near the sun on its way to earth. The total solar eclipse allowed astronomers to -- for the first time -- analyze starlight near the edge of the sun, which had been previously inaccessible to observers due to the intense brightness of the sun. It also predicted the rate at which two neutron stars orbiting one another will move toward each other. When this phenomenon was first documented, general relativity proved itself accurate to better than a trillionth of a percent precision, thus making it one of the best confirmed principles in all of physics.

**The Special Theory of Relativity** is the physical theory of measurement in an inertial frame of reference proposed in 1905 by Albert Einstein in the paper "On the Electrodynamics of Moving Bodies".<sup>8</sup>

It extends Galileo's principle of relativity—that all uniform motion is relative, and that there is no absolute and well-defined state of rest (no privileged reference frames)—to account for the constant speed of light—which was previously observed in the Michelson-Morley experiment—and postulates that it holds for all the laws of physics, including both the laws of mechanics and of electrodynamics, whatever they may be.

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<sup>8</sup> Wikipedia, Special Relativity

This theory has a wide range of consequences which have been experimentally verified, including counter-intuitive ones such as length contraction, time dilation and relativity of simultaneity. It has replaced the classical notion of invariant time interval for two events with the notion of invariant space-time interval. Combined with other laws of physics, the two postulates of special relativity predict the equivalence of mass and energy, as expressed in the mass–energy equivalence formula  $E = mc^2$ , where  $c$  is the speed of light in vacuum. The predictions of special relativity agree well with Newtonian mechanics in their common realm of applicability, specifically in experiments in which all velocities are small compared with the speed of light. Special relativity reveals that  $c$  is not just the velocity of a certain phenomenon—namely the propagation of electromagnetic radiation (light)—but rather a fundamental feature of the way space and time are unified as space-time. One of the consequences of the theory is that it is impossible for any particle that has rest mass to be accelerated to the speed of light.

The theory was originally termed "special" because it applied the principle of relativity only to the special case of inertial reference frames, i.e. frames of reference in uniform relative motion with respect to each other. Einstein developed general relativity to apply the principle in the more general case, that is, to any frame so as to handle general coordinate transformations, and that theory includes the effects of gravity.

The term is currently used more generally to refer to any case in which gravitation is not significant. General relativity is the generalization of special relativity to include gravitation. In general relativity, gravity is described using non-euclidean geometry, so that gravitational effects are represented by curvature of space-time; special relativity is restricted to flat space-time. Just as the curvature of the earth's surface is not noticeable in everyday life, the curvature of space-time can be neglected on small scales, so that locally, special relativity is a valid approximation to general relativity. The presence of gravity becomes undetectable in a sufficiently small, free-falling laboratory.

**General Theory of Relativity**<sup>9</sup>: Applying the principle of general relativity to our cosmos reveals that it is not static. Edwin Hubble (1889-1953) demonstrated in 1928 that the Universe is expanding, showing beyond reasonable doubt that the Universe sprang into being a finite time ago. The most common contemporary interpretation of this expansion is that this began to exist from the moment of the Big Bang some 13.7 billion years ago.

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<sup>9</sup> [www.allaboutscience.org/theory of relativity](http://www.allaboutscience.org/theory_of_relativity)

The General Theory of Relativity<sup>10</sup> was Einstein's stupendous effort to remove the restriction on Special Relativity that no accelerations (and therefore no forces) be present, so that he could apply his ideas to the gravitational force. It is a measure of the difficulty of the problem that it took even the great Einstein approximately 10 years to fully understand how to do this. Thus, the General Theory of Relativity is a new theory of gravitation proposed in place of Newtonian gravitation.

### **Tests of the Theory of General Relativity<sup>11</sup>**

General Relativity and Newton's gravitational theory make essentially identical predictions as long as the strength of the gravitational field is weak, which is our usual experience. However, there are several crucial predictions where the two theories diverge, and thus can be tested with careful experiments.

1. The orientation of Mercury's orbit is found to precess in space over time. This is commonly called the "precession of the perihelion", because it causes the position of the perihelion to move around the center of mass. Only part of this can be accounted for by perturbations in Newton's theory. There is an extra 43 seconds of arc per century in this precession that is predicted by the Theory of General Relativity and observed to occur (recall that a second of arc is 1/3600 of an angular degree). This effect is extremely small, but the measurements are very precise and can detect such small effects very well.
2. Einstein's theory predicts that the direction of light propagation should be changed in a gravitational field. Precise observations indicate that Einstein is right, both about the effect and its magnitude. We have already seen a spectacular consequence of the deflection of light in a gravitational field: gravitational lensing.
3. The General Theory of Relativity predicts that light coming from a strong gravitational field should have its wavelength shifted to larger values (a redshift). Once again, detailed observations indicate such a redshift, and that its magnitude is correctly given by Einstein's theory.
4. The electromagnetic field can have waves in it that carry energy and that we call light. Likewise, the gravitational field can have waves that carry energy and are called gravitational waves. These may be thought of as ripples in the curvature of space-time that travel at the speed of light.

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<sup>10</sup> csep10.phys.utk.edu/gravitation and the general theory of relativity

<sup>11</sup> Ibid.

Just as accelerating charges can emit electromagnetic waves, accelerating masses can emit gravitational waves. However, gravitational waves are difficult to detect because they are very weak and no conclusive evidence has yet been reported for their direct observation. They have been observed indirectly in the binary pulsar. Because the arrival time of pulses from the pulsar can be measured very precisely, it can be determined that the period of the binary system is gradually decreasing. It is found that the rate of period change (about 75 millionths of a second each year) is what would be expected for energy being lost to gravitational radiation, as predicted by the Theory of General Relativity.

### 3.2.2 The Quantum Theory

**Quantum mechanics**<sup>12</sup> (QM – also known as quantum physics, or quantum theory) is the body of scientific principles that explains the behavior of matter and its interactions with energy on the scale of atoms and subatomic particles.

Classical physics explains matter and energy at the macroscopic level of the scale familiar to human experience, including the behavior of astronomical bodies. It remains the key to measurement for much of modern science and technology; but at the end of the 19th Century observers discovered phenomena in both the large (macro) and the small (micro) worlds that classical physics could not explain. Coming to terms with these limitations led to the development of quantum mechanics, a major revolution in physics.

Some aspects of quantum mechanics can seem counter-intuitive, because they describe behavior quite different than that seen at larger length scales, where classical physics is an excellent approximation. In the words of Richard Feynman, quantum mechanics deals with "nature as She is — absurd."

Many types of energy, such as photons (discrete units of light), behave in some respects like particles and in other respects like waves. Radiators of photons (such as neon lights) have emission spectra that are discontinuous, in that only certain frequencies of light are present. Quantum mechanics predicts the energies, the colors, and the spectral intensities of all forms of electromagnetic radiation.

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<sup>12</sup> Wikipedia: An Introduction to Quantum Mechanics

Quantum mechanics ordains that the more closely one pins down one measure (such as the position of a particle), the less precise another measurement pertaining to the same particle (such as its momentum) must become. Put another way, measuring position first and then measuring momentum does not have the same outcome as measuring momentum first and then measuring position; the act of measuring the first property necessarily introduces additional energy into the micro-system being studied, thereby perturbing that system.

Quantum mechanics<sup>13</sup> deals with physical phenomena at microscopic scales, where the action is on the order of the Planck constant. Quantum mechanics departs from classical mechanics primarily at the quantum realm of atomic and subatomic length scales. Quantum mechanics provides a mathematical description of much of the dual particle-like and wave-like behavior and interactions of energy and matter.

In advanced topics of quantum mechanics, some of these behaviors are macroscopic and only emerge at extreme (i.e., very low or very high) energies or temperatures. The name quantum mechanics derives from the observation that some physical quantities can change only in discrete amounts (Latin *quanta*), and not in a continuous (*cf.* analog) way. For example, the angular momentum of an electron bound to an atom or molecule is quantized. In the context of quantum mechanics, the wave–particle duality of energy and matter and the uncertainty principle provide a unified view of the behavior of photons, electrons, and other atomic-scale objects.

The earliest versions of quantum mechanics were formulated in the first decade of the 20<sup>th</sup> century. At around the same time, the atomic theory and the corpuscular theory of light (as updated by Einstein) first came to be widely accepted as scientific fact; these latter theories can be viewed as quantum theories of matter and electromagnetic radiation, respectively. Early quantum theory was significantly reformulated in the mid-1920s by Werner Heisenberg, Max Born and Pascual Jordan, who created matrix mechanics; Louis de Broglie and Erwin Schrodinger (Wave Mechanics); and Wolfgang Pauli and Satyendra Nath Bose (statistics of subatomic particles). And the Copenhagen interpretation of Niels Bohr became widely accepted. By 1930, quantum mechanics had been further unified and formalized by the work of David Hilbert, Paul Dirac and John von Neumann, with a greater emphasis placed on measurement in quantum mechanics, the statistical nature of our knowledge of reality, and philosophical speculation about the role of the observer. Quantum mechanics has since branched out into almost every aspect of 20<sup>th</sup> century physics and other

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<sup>13</sup> Wikipedia, “Quantum Mechanics”

disciplines, such as quantum chemistry, quantum electronics, quantum optics, and quantum information science. Much 19<sup>th</sup> century physics has been re-evaluated as the "classical limit" of quantum mechanics, and its more advanced developments in terms of quantum field theory, string theory, and speculative quantum gravity theories.

### 3.2.3 The Theory of Evolution<sup>14</sup>

Evolution is the change in the inherited characteristics of biological populations over successive generations. Evolutionary processes give rise to diversity at every level of biological organization, including species, individual organisms and molecules such as DNA and proteins.

Life on Earth originated and then evolved from a universal common ancestor approximately 3.8 billion years ago. Repeated speciation and the divergence of life can be inferred from shared sets of biochemical and morphological traits, or by shared DNA sequences. These homologous traits and sequences are more similar among species that share a more recent common ancestor, and can be used to reconstruct evolutionary histories, using both existing species and the fossil record. Existing patterns of biodiversity have been shaped both by speciation and by extinction.

Charles Darwin was the first to formulate a scientific argument for the theory of evolution by means of natural selection. Evolution by natural selection is a process that is inferred from three facts about populations:

- 1) More offspring are produced than can possibly survive.
- 2) Traits vary among individuals, leading to differential rates of survival and reproduction.
- 3) Trait differences are heritable. Thus, when members of a population die they are replaced by the progeny of parents that were better adapted to survive and reproduce in the environment in which natural selection took place.

This process creates and preserves traits that are seemingly fitted for the functional roles they perform. Natural selection is the only known cause of adaptation, but not the only known cause of evolution. Other, non-adaptive causes of evolution include mutation and genetic drift.

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<sup>14</sup> Wikipedia, "Evolution"

Earlier naturalists speculated on evolutionary change of species over time according to natural laws. The critical break from the concept of fixed species in biology began with the theory of evolution by natural selection, which was formulated by Charles Darwin. Partly influenced by “An Essay on the Principle of Population” by Thomas Robert Malthus, Darwin noted that population growth would lead to a "struggle for existence" where favorable variations could prevail as others perished. Each generation, many offspring fail to survive to an age of reproduction because of limited resources. This could explain the diversity of animals and plants from a common ancestry through the working of natural laws working the same for all types of thing. Darwin was developing his theory of "natural selection" from 1838 onwards until Alfred Russel Wallace sent him a similar theory in 1858. Both men presented their separate papers to the Linnean Society of London. At the end of 1859, Darwin's publication of “On the Origin of Species” explained natural selection in detail and in a way that led to an increasingly wide acceptance of Darwinian evolution. Thomas Henry Huxley applied Darwin's ideas to humans, using paleontology and comparative anatomy to provide strong evidence that humans and apes shared a common ancestry. Some were disturbed by this since it implied that humans did not have a special place in the universe.

In the early 20<sup>th</sup> century, genetics was integrated with Darwin's theory of evolution by natural selection through the discipline of population genetics. The importance of natural selection as a cause of evolution was accepted into other branches of biology. Moreover, previously held notions about evolution, such as orthogenesis and "progress" became obsolete. Scientists continue to study various aspects of evolution by forming and testing hypotheses, constructing scientific theories, using observational data, and performing experiments in both the field and the laboratory. Biologists agree that descent with modification is one of the most reliably established facts in science. Discoveries in evolutionary biology have made a significant impact not just within the traditional branches of biology, but also in other academic disciplines (e.g., anthropology and psychology) and on society at large.

## 3.3 The Birth and the Basic Structure of the Universe

### 3.3.1 The Birth of the Universe

The Big Bang theory is the prevailing cosmological model that describes the early development of the Universe.<sup>15</sup> According to the Big Bang theory, the Universe was once in an extremely hot and dense state which expanded rapidly. This rapid expansion caused the Universe to cool and resulted in its present continuously expanding state. According to the most recent measurements and observations, the Big Bang occurred approximately 13.75 billion years ago, which is thus considered the age of the Universe. After its initial expansion from a singularity, the Universe cooled sufficiently to allow energy to be converted into various subatomic particles, including protons, neutrons, and electrons. While protons and neutrons combined to form the first atomic nuclei only a few minutes after the Big Bang, it would take thousands of years for electrons to combine with them and create electrically neutral atoms. The first element produced was hydrogen, along with traces of helium and lithium. Giant clouds of these primordial elements would coalesce through gravity to form stars and galaxies, and the heavier elements would be synthesized either within stars or during supernovae.

While the scientific community was once divided between supporters of the Big Bang and those of alternative cosmological models, most scientists became convinced that some version of the Big Bang scenario best fit observations after the discovery of the cosmic microwave background radiation in 1964, and especially when its spectrum (i.e., the amount of radiation measured at each wavelength) was found to match that of thermal radiation from a black body. Since then, astrophysicists have formulated further hypotheses to account for some discrepancies that have arisen within the model.

During the 1970s and 1980s, various observations showed that there is not sufficient visible matter in the Universe to account for the apparent strength of gravitational forces within and between galaxies. This led to the idea that up to 90% of the matter in the Universe is dark matter that does not emit light or interact with normal baryonic matter. In addition, the assumption that the Universe is mostly normal matter led to predictions that were strongly inconsistent with observations. In particular, the Universe today is far more lumpy and contains far less deuterium than can be accounted for without dark matter. While dark matter has always been controversial, it is inferred by various observations: the

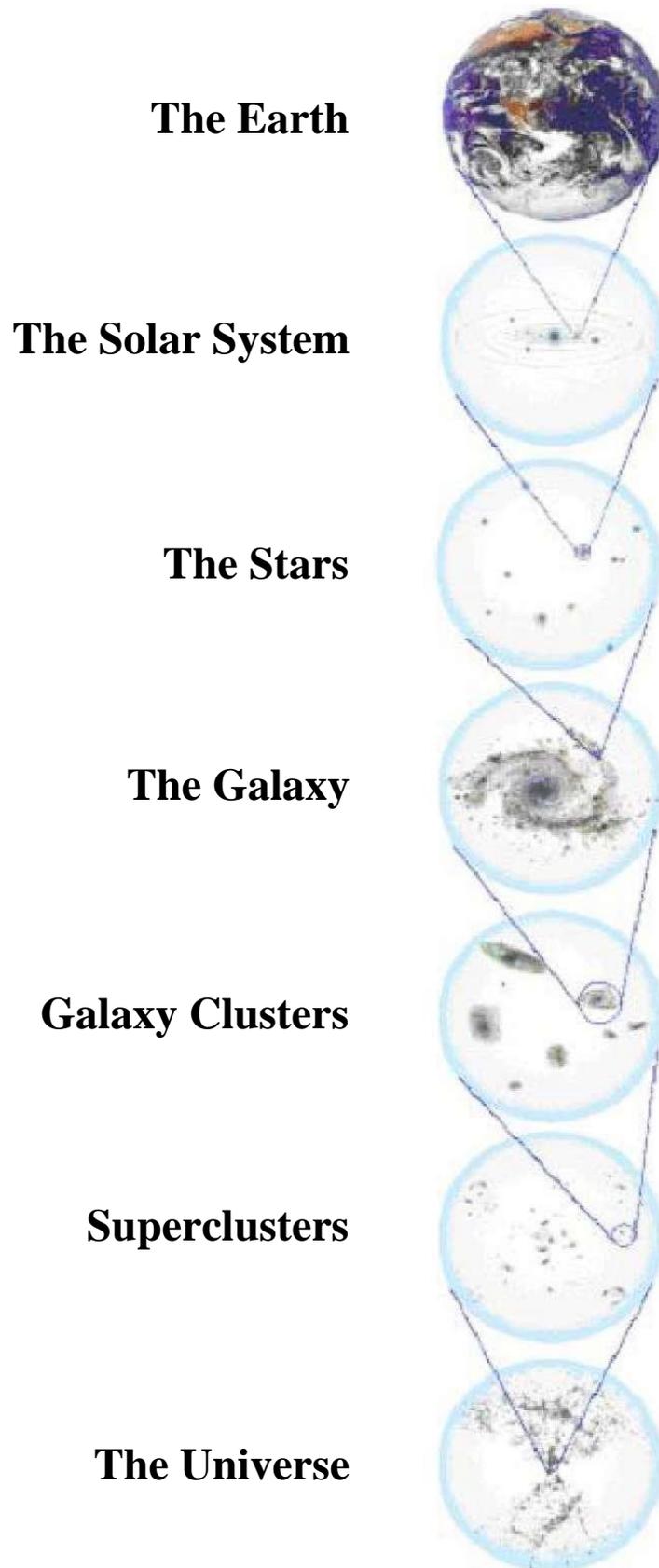
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<sup>15</sup> Wikipedia: Big Bang

anisotropies in the CMB, galaxy cluster velocity dispersions, large-scale structure distributions, gravitational lensing studies, and X-ray measurements of galaxy clusters.

Indirect evidence for dark matter comes from its gravitational influence on other matter, as no dark matter particles have been observed in laboratories. Many particle physics candidates for dark matter have been proposed, and several projects to detect them directly are underway.

### 3.3.2 The Structure of the Universe



The Universe is immensely large and possibly infinite in volume. The observable matter is spread homogeneously throughout the universe, when averaged over distances longer than 300 million light-years. However, on smaller length-scales, matter is observed to form "clumps", i.e., to cluster hierarchically; many atoms are condensed into stars, most stars into galaxies, most galaxies into clusters, superclusters and, finally, the largest-scale structures such as the Great Wall of galaxies. The observable matter of the Universe is also spread isotropically, meaning that no direction of observation seems different from any other; each region of the sky has roughly the same content. The universe is also bathed in a highly isotropic microwave radiation that corresponds to a thermal equilibrium blackbody spectrum of roughly 2.725 kelvin. The hypothesis that the large-scale universe is homogeneous and isotropic is known as the cosmological principle, which is supported by astronomical observations.

### **The Earth**

Our earth has a diameter of 12,756 kilometers and is 150 million kilometers away from the sun. It takes sunlight 8 minutes to reach the earth.

### **The Solar System**

It has the sun at its center and 9 planets orbit around it. Each planet may have a moon orbiting around it. Pluto is 6 billion kilometers away from the sun and sunlight takes more than 5 hours to reach Pluto.

### **The Stars**

Each star has a number of planets orbiting around it just like the way it is in the Solar System. The stars are trillions of kilometers away from each other. The star closest to the sun is 40 trillion kilometers or 4.2 light-years away. It is called "Proxima Centauri". All the stars we see up in the sky at night are not over 2,000 light-years away.

Light-year is the unit used to measure distances in the universe. One light-year means the distance light travels in one year based on the speed of light (about 300,000 kilometers per second).

## **The Galaxy**

Galaxies contain varying amounts of star systems, star clusters and types of interstellar clouds. Dark matter appears to account for around 90% of the mass of most galaxies. The Milky Way is the galaxy that contains the earth. The Milky Way is a barred spiral galaxy 100,000–120,000 light-years in diameter containing 200–400 billion stars. It may contain at least as many planets, with an estimated 10 billion of those orbiting in the habitable zone of their parent stars. The Solar System is located within the disk, around two thirds of the way out from the Galactic Center, on the inner edge of a spiral-shaped concentration of gas and dust called the Orion–Cygnus Arm.

## **Galaxy Clusters**

Galaxy clusters are structures in the universe consisting of hundreds of galaxies bound by gravity. The Milky Way is one of three large galaxies belonging to the group of galaxies called the Local Group which also contains several dozen dwarf galaxies. The Andromeda Galaxy is the nearest spiral galaxy to our Milky Way galaxy approximately 2.5 million light-years from Earth. Previously, estimates of the Andromeda Galaxy's size ranged from 70,000 to 120,000 light-years across. But recent estimate is 220,000 light-years across.

## **Superclusters**

Superclusters are large groups of smaller galaxy groups and clusters and are among the largest known structures of the cosmos. The Virgo Supercluster (*Virgo SC*) or Local Supercluster (LSC or LS) is the irregular supercluster that contains the Virgo Cluster in addition to the Local Group, which in turn contains the Milky Way and Andromeda galaxies. At least 100 galaxy groups and clusters are located within its diameter of 33 megaparsecs (110 million light-years). It is one of millions of superclusters in the observable Universe.

## **The Universe**

The universe is commonly defined as the totality of existence, including planets, stars, galaxies, the contents of intergalactic space, and all matter and energy. Scientific observation of earlier stages in the development of the universe, which can be seen at great distances, suggests that the universe has been governed by the same physical laws and constants throughout most of its extent and history.

There are various multiverse hypotheses, in which physicists have suggested that the universe might be one among many universes that likewise exist. The farthest distance that it is theoretically possible for humans to see is described as the observable universe. Observations have shown that the universe appears to be expanding at an accelerating rate, and a number of models have arisen to predict its ultimate fate.

The observable universe<sup>16</sup> contains between  $10^{22}$  and  $10^{24}$  stars (between 10 sextillion and 1 septillion stars). To be slightly more precise, according to the Sloan Digital Sky Survey, "[by] a conservative estimate.... the currently observable universe is home to the order of  $6 \times 10^{22}$  stars" These stars are organized in more than 80 billion galaxies, which themselves form clusters and superclusters.

### **Radio-Waves near Milky Way Core<sup>17</sup>**

Twenty years ago, astronomers discovered a number of enigmatic radio-emitting filaments concentrated near the center of the Milky Way Galaxy. These features initially defied explanation, but a new study of radio images of the Galactic center may point to their possible source. These mysterious "filaments" of radio-wave emission may hold the ultimate proof of the existence of dark matter, researchers have said. A new report suggests the filaments' emission arises from dark matter particles crashing into each other.

The filaments --regions of high magnetic fields that emit radio waves of high frequency--have been a mystery to astronomers since they were first discovered in the 1980s. The region within 900 light-years of the Milky Way Galaxy's core is crisscrossed with glowing filaments 1 to 3 light-years thick and 10 to 100 light-years long. They are a recent discovery, known only since the invention of modern radio and infrared telescopes that can "see" through the visually opaque dust clouds shrouding the galaxy core. The latest radio telescope probes of this region show that the filaments are associated with pockets of star-formation.

"There's a long literature about these objects, and there have been some ideas as to what might generate their emission - but frankly no one really knows," said Dan Hooper, an astrophysicist at the Fermi National Accelerator Laboratory (Fermilab) in the US and co-author of the paper, which is under review by academics.

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<sup>16</sup> Wikipedia: Observable Universe

<sup>17</sup> [www.dailygalaxy.com/radio-wave-emissions...](http://www.dailygalaxy.com/radio-wave-emissions...)

## 3.4 Black Hole

### 3.4.1 Black Hole and Its Predictions<sup>18</sup>

A **black hole** is a region of space-time where gravity prevents anything, including light, from escaping. The theory of general relativity predicts that a sufficiently compact mass will deform space-time to form a black hole. Around a black hole there is a mathematically defined surface called an event horizon that marks the point of no return. It is called "black" because it absorbs all the light that hits the horizon, reflecting nothing, just like a perfect black body in thermodynamics. Quantum mechanics predicts that event horizons emit radiation like a black body with a finite temperature. This temperature is inversely proportional to the mass of the black hole, making it difficult to observe this radiation for black holes of stellar mass or greater.

Objects whose gravity field is too strong for light to escape were first considered in the 18<sup>th</sup> century by John Michell and Pierre-Simon Laplace. The first modern solution of general relativity that would characterize a black hole was found by Karl Schwarzschild in 1916, although its interpretation as a region of space from which nothing can escape was not fully appreciated for another four decades. Long considered a mathematical curiosity, it was during the 1960s that theoretical work showed black holes were a generic prediction of general relativity. The discovery of neutron stars sparked interest in gravitationally collapsed compact objects as a possible astrophysical reality.

Black holes of stellar mass are expected to form when very massive stars collapse at the end of their life cycle. After a black hole has formed it can continue to grow by absorbing mass from its surroundings. By absorbing other stars and merging with other black holes, supermassive black holes of millions of solar masses may form. There is general consensus that supermassive black holes exist in the centers of most galaxies.

### 3.4.2 Supermassive Black Hole in the Center of the Milky Way<sup>19</sup>

Astronomers made a spectacular announcement in late fall, 2008. Suspected for several years, a massive black hole has been identified at the galactic center. Black holes are still difficult to understand. They are created by the gravitational collapse of the most massive stars. Some of the star's material is blown away in a colossal explosion called a supernovae. Interior material implodes, the collapse only stopping when a black hole has been created, that entity of infinite mass and gravitational force that has no dimensions and

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<sup>18</sup> Wikipedia: Black Hole

<sup>19</sup> [www.environmentalgraffiti.com/supermassive black hole at the center of the milky way](http://www.environmentalgraffiti.com/supermassive-black-hole-at-the-center-of-the-milky-way)

no volume. The supermassive black hole of the Milky Way is in a region called Sagittarius A\* that was only confirmed very recently. This massive black hole is small in size with a radius of less than 6.25 light hours. It is 'massive' because of the extraordinary amount of mass compacted into its small sphere, about 3.7 million solar masses (1 solar mass =  $1.9891 \times 10^{30}$  kilograms). Research in the fall of 2008 reported that 95% of the mass of Sagittarius A\* is in the supermassive black hole, so we can consider the two entities as equivalent. Super massive black holes may grow by capturing nearby stars, gas and dust and smaller black holes.

### **3.4.3 Time in a Black Hole**

Scientists have found that if a black hole is ten times the mass of the sun, time at one centimeter from the event horizon will slow down by a factor of six million when compared to the time at a reference point far away. Should a black hole is 100,000 times the mass of the sun, time at one centimeter from the event horizon will slow down by a factor of 60 billion when compared to the time at a distance from it such as earth.

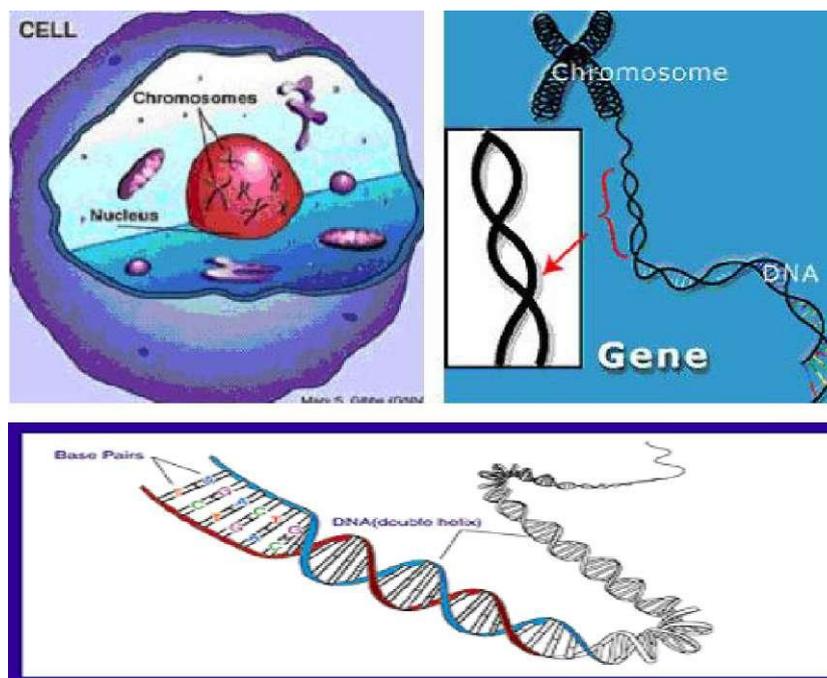
## **3.5 The Genome**

The cell is the basic structural and functional unit of all known living organisms. It is the smallest unit of life that is classified as a living thing (except virus, which consists only of DNA/RNA covered by protein and lipids), and is often called the building block of life. Organisms can be classified as unicellular (consisting of a single cell; including most bacteria) or multicellular (including plants and animals). Humans contain about 10 trillion ( $10^{13}$ ) cells. Most plant and animal cells are between 1 and 100  $\mu\text{m}$  and therefore are visible only under the microscope.

At the center of the cell is the nucleus. It is a membrane-enclosed organelle found in eukaryotic cells. It contains most of the cell's genetic material, organized as multiple long linear DNA molecules in complex with a large variety of proteins, such as histones, to form chromosomes. The function of the nucleus is to maintain the integrity of these genes and to control the activities of the cell by regulating gene expression — the nucleus is, therefore, the control center of the cell.

Chromosomes are long, stringy aggregates of genes that carry heredity information. They are composed of DNA and proteins. Chromosomes determine everything from hair color and eye color to sex. Whether one is a male or female depends on the presence or absence of certain chromosomes. The genes within these chromosomes are the cell's nuclear genome. Therefore, the genome is the entirety of an organism's hereditary information.

DNA molecules are informational molecules encoding the genetic instructions used in the development and functioning of all known living organisms. Genetic information is encoded as a sequence of nucleotides, recorded using the letters G, A, T, and C. Most DNA molecules are double-stranded helices, consisting of two long polymers of simple units called nucleotides, with backbones made of alternating sugars (deoxyribose) and phosphate groups, with the nucleobases (G, A, T, C) attached to the sugars. The human (*Homo sapiens*) genome is the complete set of human genetic information, stored as DNA sequences within the 23 chromosome pairs of the cell nucleus, and in a small DNA molecule within the mitochondrion. The size of an individual gene or an organism's entire genome is often measured in base pairs because DNA is usually double-stranded. Each human gene contains about 100,000 base pairs.



The human body contains about 100 trillion cells and each cell contains around 3 billion base pairs. Scientists are trying to decode these DNA sequences in order to understand which DNA molecules perform what duty. They hope that in the future they can use genetic engineering to determine the shape, characteristics, color, etc., of the fetus.

A DNA molecule is 10 times the size of an atom. A DNA molecule is 1/10 millionth of a centimeter whereas an atom is 1/100 millionth of a centimeter. The nucleus of an atom and the nucleus of a cell are different things altogether.

### **ASSIGNMENTS**

After you have finished studying this chapter, complete the test and the exercises provided in the workbook before proceeding to the next chapter.

# **Chapter 4**

## **Important Dhammic Principles in the Tipitaka**

## **Chapter 4**

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# **Important Dhammic Principles in the Tipitaka**

- 4.1 An Overview of Important Dhammic Principles in the Tipitaka**
- 4.2 Nibbana**
- 4.3 Heedfulness**
- 4.4 The Three Rules of Human Conduct**
- 4.5 The Noble Eightfold Path**
- 4.6 The Threefold Training**
- 4.7 The Tipitaka**
- 4.8 The Five Universal Laws or Niyama-5**

## Concepts

1. The different Dhammic Principles in the Tipitaka provide the basis of practice for the attainment of Nibbana. All of these Dhammic Principles are interconnected. They can be elaborated or abbreviated. The most abbreviated form of the Dhammic Principles is contained in the word “heedfulness”. At the same time they can be elaborated to include 84,000 topics: The Vinaya – 21,000 topics, the Sutta – 21,000 topics, and the Abhidhamma – 42,000 topics.
2. All of the Dhammic Principles in the Tipitaka can be divided into the three rules of human conduct: abstaining from unwholesome deeds, performing wholesome deeds, and keeping the mind bright and clear. These three rules of human conduct can also be called “The Threefold Training”: Silasikkha, Cittasikkha, and Pannasikkha. The Threefold Training can in turn be elaborated to include the Noble Eightfold Path: Right View, Right Thought, Right Speech, Right Action, Right Livelihood, Right Effort, Right Mindfulness, and Right Concentration. Right View and Right Thought are Pannasikkha. Right Speech, Right Action, and Right Livelihood are Silasikkha. Right Effort, Right Mindfulness, and Right Concentration are Cittasikkha.
3. One important category of Dhammic Principles appears in the Commentary. These are called “The Five Universal Laws” or Niyama-5. They include biological laws or Bijaniyama, physical laws or Utuniyama, psychic law or Cittaniyama, the Law of Kamma or Kammaniyama, and the law of cause and effect or Dhammaniyama.

## Objectives

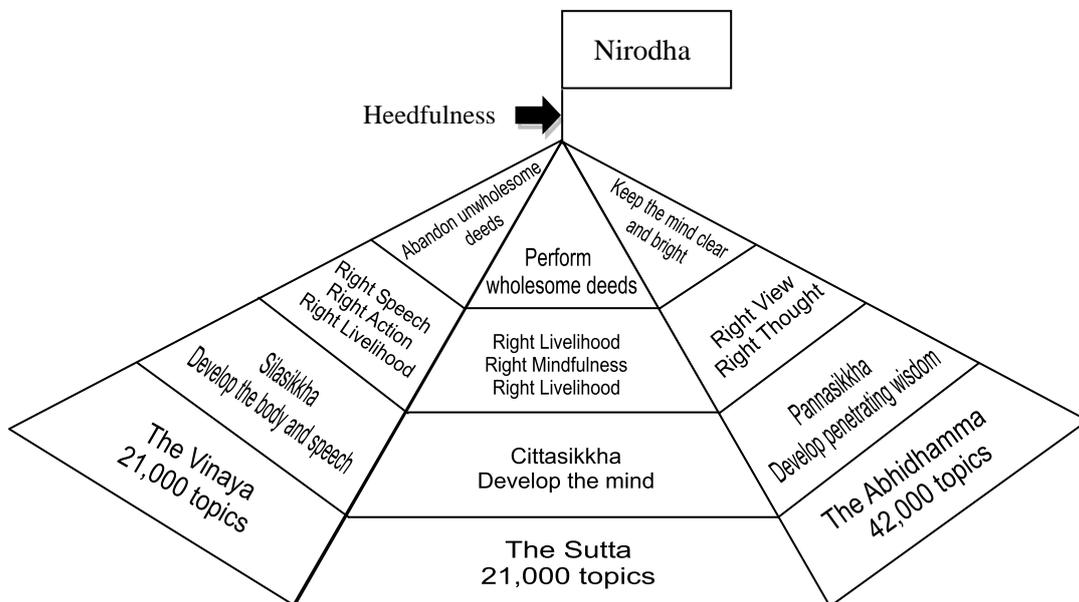
To enable the student to gain an overview of important Dhammic Principles in the Tipitaka. These include Nibbana, heedfulness, abstaining from unwholesome deeds, performing wholesome deeds, keeping the mind bright and clear, the Noble Eightfold Path, the Threefold Training, the components of the Tipitaka, and the Five Universal Laws.

## Chapter 4

### Important Dhammic Principles in the Tipitaka

Here, important Dhammic Principles will be presented in brief as a ready reference for studying this course material. The student is already familiar with these principles to a more or less extent and will now have the opportunity to review them.

#### 4.1 An Overview of Important Dhammic Principles in the Tipitaka



The above diagram was kindly provided by the Most Venerable Phrabhavanaviriyakhun, the Vice-Abbot of Wat Phra Dhammakaya. It gives a clear overview of all the Dhammic Principles in the Tipitaka. The ultimate aim of practicing the Dhamma is the attainment of Nibbana. And the attainment of Nibbana is every living being’s ultimate life-goal.

The different Dhammic Principles in the Tipitaka serve as the basis of practice for the attainment of Nibbana. All of these Dhammic Principles are interconnected. They can be elaborated or abbreviated. The most abbreviated form of the Dhammic Principles is contained in the word “heedfulness”. At the same time they can be elaborated to contain 84,000 topics: The Vinaya – 21,000 topics, the Sutta – 21,000 topics, and the Abhidhamma – 42,000 topics.

In addition, all of the Dhammic Principles in the Tipitaka can be divided into the three rules of human conduct: abstaining from unwholesome deeds, performing wholesome deeds, and keeping the mind bright and clear. These three rules of human conduct can also be called “The Threefold Training”: Silasikkha, Cittasikkha, and Pannasikkha. The Threefold Training can in turn be elaborated to include the Noble Eightfold Path: Right View, Right Thought, Right Speech, Right Action, Right Livelihood, Right Effort, Right Mindfulness, and Right Concentration. Right View and Right Thought are Pannasikkha. Right Speech, Right Action, and Right Livelihood are Silasikkha. Right Effort, Right Mindfulness, and Right Concentration are Cittasikkha.

## 4.2 Nibbana

Nibbana means the end of defilements which are the causes of suffering. Nibbana is every living being’s ultimate life-goal. The Lord Buddha divides Nibbana into two categories: Saupadisesanibbana and Anupadisesanibbana.<sup>1</sup>

- 1) Saupadisesanibbana means an Arahant who has put an end to all Fetters, is emancipated through right knowledge, is devoid of greed, anger, and ignorance but is still experiencing pleasure and displeasure, happiness and unhappiness because he still possesses the five sense-faculties or Indriya-5.

The Most Venerable Phrabhavanaviriyakhun defines Saupadisesanibbana as Nibbana inside the human body. It is sometimes called “Living Nibbana”. Saupadisesanibbana means the end of all defilements while the body with its Five Aggregates still exists; with the appearance of Dhammakaya inside the body, one penetrates the bliss of Nibbana.<sup>2</sup>

- 2) Anupadisesanibbana means an Arahant who has put an end to all Fetters, is emancipated through right knowledge. He can no longer be dominated by defilements, cravings, etc.

The Most Venerable Phrabhavanaviriyakhun defines Anupadisesanibbana as Nibbana outside the body. It is sometimes called “Dead Nibbana”. Once the Five Aggregates have been completely extinguished, Dhammakaya existing in Saupadisesanibbana falls into the center and enters Anupadisesanibbana. This is the place called “Ayatananibbana”, the destination aspired to by Ariya individuals.<sup>3</sup>

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<sup>1</sup> *Dhātu Sutta. Khuddaka-nikāya Itivuttaka*. Bangkok: Mahamakut Buddhist University Press, vol. 45, p. 304

<sup>2</sup> Phrabhavanaviriyakhun, “Dhammacakkappavattana Sutta”, p. 146

<sup>3</sup> *ibid*

### 4.3 Heedfulness

Heedfulness means not being careless, not making a mistake, not being absent-minded. It means being constantly mindful. Recklessness means the lack of mindfulness. Heedfulness encompasses all of the Dhammic Principles in the Tipitaka.

In the Pada Sutta, the Lord Buddha says that the footprints of each living being can be contained inside an elephant's footprint. Likewise, all wholesomeness is based on heedfulness. Behold, monks, a monk who is heedful will be able to make progress in his practice of the Noble Eightfold Path.<sup>4</sup>

Before the Lord Buddha attained Complete Nibbana, His final words were, "Behold, monks, I wish to remind you that all conditioned things undergo deterioration. All of you must be sure to practice heedfulness." These words summarize all of the Lord Buddha's Teachings into just one word, heedfulness.

The Most Venerable Phramonkolthepmuni (Sodh Candasaro) elaborated on the Lord Buddha's final words as follows.<sup>5</sup>

Recklessness is being absent-minded. Heedfulness is not being absent-minded. The mind is focused on one place... In His final words, the Lord Buddha told us not to be reckless, not to be absent-minded in things that deteriorate. One must always be mindful of the concept of deterioration. As one contemplates it, one is startled and one comes to the realization, I came alone and I will die alone. Where are all of my ancestors now? They are all dead and I too will die. Having been startled in such a manner, one immediately stops committing evil deeds and begins performing good deeds instead. One understands the concept of deterioration. Otherwise, one dares to commit evil deeds, and dares to vilify one's elders.

### 4.4 The Three Rules of Human Conduct

Besides being summarized into one word, "heedfulness", all of the Dhammic Principles can be elaborated to include the three rules of human conduct:<sup>6</sup>

- 1) Commit no evil deeds.
- 2) Perform wholesome deeds.
- 3) Keep the mind bright and clear.

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<sup>4</sup> *Pada Sutta Samyuttanikāya Mahāvalavagga*. Bangkok: Mahamakut Buddhist University Press, vol. 40, no. 132, p. 2

<sup>5</sup> Phramonkolthepmuni (Sodh Candasaro), (2537 B.E.) "Luang Por Wat Paknam's Dhamma Lectures", page 199

<sup>6</sup> *Māhāpadāna Sutta. Dīgha-nikāya Mahāvagga*. Bangkok: Mahamakut Buddhist University Press, vol. 13, no. 54, p. 55

- 1) Commit no evil deeds (Sabbapapassa akaranam): It means not committing evil deeds through the body, the word, and the mind. This teaching covers all the teachings contained in the Vinayapitaka. In terms of the Threefold Training, it is considered to be “Silasikkha”.
- 2) Perform wholesome deeds (Kusalassupasampada): It means performing good deeds through the body, the word, and the mind. This teaching covers all the teachings contained in the Suttantapitaka. In terms of the Threefold Training, it is considered to be “Cittasikkha”.
- 3) Keep the mind bright and clear (Sacittapariyodapanam): This teaching covers all the teachings contained in the Abhidhammapitaka. In terms of the Threefold Training, it is considered to be “Pannasikkha”.

#### **4.5 The Noble Eightfold Path**

The Noble Eightfold Path is the eight paths of practice leading to the end of suffering, hence, the attainment of Nibbana.

The Noble Eightfold Path is part of the Four Noble Truths, which include Suffering, the Cause of Suffering, the Cessation of Suffering, and the Path Leading to the Cessation of Suffering.

The Lord Buddha teaches the Noble Eightfold Path in His first Dhamma lecture called the Dhammacakkappavattana Sutta.<sup>7</sup> The Most Venerable Phrabhavanaviriyakhun simplifies the teaching to make it easier to understand as follows.

- 1) Right View: It means right understanding in that one knows how to correctly decide if something is right or wrong, good or evil, the source of merit or demerit, should or should not be done.
- 2) Right Thought: It means choosing to think only good and wholesome thoughts.
- 3) Right Speech: It means choosing to say only good and wholesome words.
- 4) Right Action: It means choosing to perform only good and wholesome deeds.
- 5) Right Livelihood: It means choosing wholesome means to earn a living.
- 6) Right Effort: It means endeavoring to abstain from evil deeds, endeavoring to perform good deeds, endeavoring to keep one’s mind bright and clear.
- 7) Right Mindfulness: It means keeping the mind clean and pure as one thinks, says, and does things.

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<sup>7</sup> *Dhammacakkappavattana Sutta. Vinayapitaka Mahāvagga.* Part I, Bangkok: Mahamakut Buddhist University Press, vol. 6, p. 46

8) Right Concentration: It means endeavoring to keep the mind still at the center of the body during meditation practice. The still mind gives rise to brightness which leads one to see the Dhamma, the pure nature inside oneself.<sup>8</sup>

In the Parikadhara Sutta, the Lord Buddha says that the first seven parts of the Noble Eightfold Path from Right View to Right Mindfulness are the components of Right Concentration. When the mind achieves the state of one-pointedness as a result of the first seven parts of the Noble Eightfold Path, this is called Ariya Concentration...<sup>9</sup>

The Most Venerable Phrabhavanaviriyakhun says that the first seven parts of the Noble Eightfold Path converge and become Right Concentration. It is for this reason that Right Concentration is the most important part of the Noble Eightfold Path. An individual can practice heedfulness only when he is constantly mindful. And to be constantly mindful means that the individual has achieved Right Concentration whereby his mind is kept completely still at the center of his body at all times.

#### 4.6 The Threefold Training

In the Bhava Sutta, the Lord Buddha says that the Threefold Training or Sikkhattaya consists of Adhisilasikkha, Adhiccitasikkha, and Adhipannasikkha. The achievement of the Threefold Training leads to the end of craving, the end of Fetters, and the end of suffering because conceit or Mana is no more.<sup>10</sup>

The Most Venerable Phramonkolthepmuni (Sodh Candasaro) explained that there are two levels of the Threefold Training or Sikkhattaya: the basic level and the elevated level.

The basic level of the Threefold Training means that one “knows” what the Threefold Training is and practices it accordingly until one can arrive at the elevated level of the Threefold Training.

The elevated level of the Threefold Training is achieved after one has practiced the basic level to the point where one can “see” inside oneself the Sila Sphere, the Samadhi Sphere, and the Panna Sphere.

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<sup>8</sup> Phrabhavanaviriyakhun (2550 B.E.) “This life is to be used as a wager”

<sup>9</sup> *Suttantapiṭaka Aṅguttaranikāya Saṭṭakanipāta*. Bangkok: Mahamakut Buddhist University Press, vol. 37, no. 42, p. 110

<sup>10</sup> *Bhāvanā Sutta. Aṅguttaranikāya Saṭṭakanipāta*. Bangkok: Mahamakut Buddhist University Press, vol. 36, no. 376, p. 831

## 4.7 The Tipitaka

The Lord Buddha's Teachings or the Dhamma can be elaborated to include 84,000 topics: The Vinaya – 21,000 topics, the Sutta – 21,000 topics, and the Abhidhamma – 42,000 topics. The Tipitaka is connected to the Threefold Training as follows.

The Vinayapitaka	corresponds to	Silasikkha
The Suttantapitaka	corresponds to	Cittasikkha
The Abhidhammapitaka	corresponds to	Pannasikkha

Details about the Tipitaka are presented in the course “Fundamental Knowledge of Buddhism”.

## 4.8 The Five Universal Laws or Niyama-5

These laws appear in the Commentary and they represent natural and physical science according to the Tipitaka.

Niyama means certainty<sup>11</sup>. In today's term, it means “law”. The Commentary says that there are altogether five universal laws. These include biological laws or Bijaniyama, physical and chemical laws or Utuniyama, the Law of Kamma or Kammaniyama, the psychic law or Cittaniyama, and the law of cause and effect or Dhammaniyama<sup>12</sup>. The Lord Buddha discovered these laws but His teachings emphasize Cittaniyama, Kammaniyama, and Dhammaniyama because they involve the end of suffering. These Five Universal Laws apply to everything on earth as well as everything in the countless galaxies.

- 1) Biological Laws or Bijaniyama:** These are the laws that govern all animate objects which include plants and animals. Biological laws state that when a rice seed is planted, what results is the rice seedling. An elephant gives birth to an elephant. A human being gives birth to a human being. Etc.
- 2) Physical and Chemical Laws or Utuniyama:** These are the laws that govern all inanimate objects which include earth, sky, air, matter, objects, and the different realms of existence in the countless galaxies. These laws govern the smallest things from particles, atoms to gigantic things like the earth, the galaxy, and the Universe. They govern such happenings as lightning, thunder, changing seasons, all the way to the birth and death of the earth.

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<sup>11</sup> *Paramatthadīpanī Aṅṅhakathā-Abhidhammapiṭaka Kāthāvatthu*. Bangkok: Mahamakut Buddhist University Press, vol. 81, p. 348

<sup>12</sup> *Māhāpadāna Sutta. Aṅṅhakathā-Dīgha-nikāya Mahāvagga*. Bangkok: Mahamakut Buddhist University Press, vol. 13, p. 100

- 3) The Law of Kamma or Kammaniyama:** Kamma or action can be divided into good Kamma and evil Kamma. Good Kamma begets good results; evil Kamma begets evil results.
- 4) Psychic Law or Cittaniyama:** It means the law that governs the working mechanism of the mind. Buddhism teaches that humans are made up of body and mind. The mind is the boss. It tells the body to do what it wants. The body can be compared to a computer whereas the mind can be compared to a user.
- 5) The Law of Cause and Effect or Dhammaniyama:** This law has two meanings. The first meaning has to do with the law of cause and effect. For example, this thing happens because the other thing exists. Dhammic Principles have to do with the law of cause and effect. For example, the Dhammic Principle “Paticcasamuppada” : Ignorance or Avijja gives rise to Kamma-Formations or Sankhara, Kamma-Formations give rise to consciousness or Vinnan, Consciousness gives rise to mind and matter or Namarupa, mind and matter give rise to the Six Sense-Bases or Salayatana, the Six Sense-Bases give rise to Contact or Phassa, Contact gives rise to Feeling or Vedana, Feeling gives rise to Craving or Tanha, Craving gives rise to Clinging or Upadana, Clinging gives rise to Becoming or Bhava, Becoming gives rise to Birth or Jati, and Birth gives rise to Deterioration and Death.

The second meaning of the law of cause and effect has to do with the interconnectedness of the first four laws. For examples, the birth of the Lord Buddha causes the earth to quake; when human beings allow defilements to run amok, they commit immoral deeds and cause the environment to deteriorate, etc.

Now, the birth of our Lord Buddha has to do with Biological Laws or Bijaniyama whereas the quaking of the realms of existence in the 10,000 Universes has to do with Physical and Chemical Laws or Utuniyama. Normally, these two incidents are separate from each other. However, given our Lord Buddha’s merit and Perfections, Biological Laws can exert an effect on Physical and Chemical Laws. In fact, the 10,000 Universes were caused to quake not only at the time when our Lord Buddha was born, but also at the times when He attained Self-Enlightenment, gave the first Dhamma lecture, foretold His passing, and attained Complete Nibbana. These events are also considered to be the Law of Cause and Effect or Dhammaniyama.

Other examples of interconnectedness are as follows. When human beings do not practice morality, it causes the environment to deteriorate. But when human beings practice morality, it causes the environment to thrive. Defilements inside the human mind cause the earth to be destroyed. Anger causes the earth to be annihilated by fire. Greed causes the earth to be annihilated by water. Ignorance causes the earth to be annihilated by wind. A person, who has practiced meditation until he can achieve elevated meditative attainments, has the psychic powers to perform supernormal feats such as walking on water, diving through the ground, flying in the air, creating something out of nothing, etc.

It was written in the Dhammika Sutta<sup>13</sup> that at any period where the king does not practice morality, the Brahmins and wealthy people do not practice morality, and the general public does not practice morality, the path of orbit of the moon and the sun will not be fixed. And when that happens, the path of orbit of the stars will not be fixed either. The day and night will not be fixed; neither will the month and week.

As a result, the seasons will not be fixed, and the direction of the wind will not be fixed. These variations cause celestial beings to be annoyed. Their annoyance causes unseasonal rain and unseasonal rain causes rice in the paddies to ripen non-uniformly. Consuming non-uniformly ripened rice causes human beings to be short-lived, sallow, weak, and sickly.

At any period where the king practices morality, the Brahmins and wealthy people practice morality, the general public practices morality, the path of orbit of the moon and the sun will be fixed. So will that of the stars. The day and night will be fixed; so will the month and week.

As a result, the seasons will be fixed; the direction of the wind will be fixed. Celestial beings will not become annoyed. Therefore, there will be seasonal rain and the rice in the paddies will ripen uniformly. Consuming uniformly ripened rice causes human beings to be long-lived, fair-complected, strong, and healthy.

This Saying of the Lord Buddha illustrates clearly how human conduct, which has to do with Biological Laws or Bijaniyama, exerts an effect on the climate, which has to do with Physical and Chemical Laws or Utuniyama.

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<sup>13</sup> *Dhammika Sutta. Aṅguttaranikāya Catukakanipāta*. Bangkok: Mahamakut Buddhist University Press, vol. 35, no. 70, p. 221

## **ASSIGNMENTS**

After you have finished studying this chapter, complete the test and the exercises provided in the workbook before proceeding to the next chapter.

# **Chapter 5**

## **The Humanities**

### **According to the Tipitaka**

## Chapter 5

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# The Humanities According to the Tipitaka

### **5.1 An Overview of the Humanities According to the Tipitaka**

### **5.2 The History of Earth and Humanities**

- 1) The First Period
- 2) The Middle Period
- 3) The Final Period
- 4) Decline Is Caused by Unwholesomeness

### **5.3 The Human Life: Its Meaning and Its Components**

### **5.4 The Human Mind: Its Importance and Its Nature**

### **5.5 The Cycle of Kilesa (Defilements), Kamma (Action), and Vipaka (the Consequences of Action)**

- 5.5.1 Kilesa: The Meaning and Families of Kilesa
- 5.5.2 Kamma: The Meaning and Types of Kamma
- 5.5.3 Vipaka: The Meaning and Types of Vipaka

### **5.6 Habits**

- 5.6.1 The Importance of Habits
- 5.6.2 How Habits Are Formed
- 5.6.3 The Five Rooms Where Habits Are Formed
- 5.6.4 How to Form Good Habits

### **5.7 Life Is Determined by Kamma**

### **5.8 The Objective of Human Life**

### **5.9 The Importance of Human Life**

## Concepts

1. Humanity's unwholesome deeds cause the earth and human beings to deteriorate whereas humanity's wholesome deeds cause the earth and human beings to thrive.
2. Human beings are made up of body and mind. In its natural state, the mind is bright but Kilesa or defilements cause it to become gloomy. Kilesa or defilements cause human beings to commit evil deeds; the result of which is Papa or demerit, and it is demerit that causes suffering. To correct this situation, human beings must perform wholesome deeds by accumulating Punna or merit. Merit has the power to cleanse the mind of Kilesa and demerit.
3. Habits are an important factor in causing human beings to perform good or evil deeds; resulting in merit or demerit respectively. Habits are formed inside the five rooms that we use in our daily life. These include the bedroom, the bathroom, the kitchen, the dressing room, and the office.
4. The course of human life is determined by Kamma or action in that evil Kamma or evil deeds give rise to life's troughs whereas good Kamma or wholesome deeds give rise to life's crests.
5. There are three levels to the objective of human life. The basic level is the accumulation of material wealth. The intermediate level is the accumulation of merit as provisions for future existences. The ultimate level is the earnest pursuit of Perfections for the attainment of Nibbana. It is important to be born human because the human life form is the most conducive to the accumulation of merit and the pursuit of Perfections compared to other forms of life.

## Objectives

To enable the student to learn about the humanities according to the Tipitaka, which include the history of earth and humanity, the human life: its meaning and its components, the human mind: its importance and its nature, the cycle of Kilesa, Kamma, and Vipaka, the role of habits, life is determined by Kamma, the objective of human life, and the importance of being human.

## Chapter 5

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# The Humanities According the Tipitaka

The Lord Buddha's Teachings emphasize the humanities and the fact that the attainment of Nibbana is every living being's ultimate goal. These teachings can be summarized as Sikkhattaya or the Threefold Training. It includes Sila or morality, Samadhi or concentration, and Panna or wisdom.

### 5.1 An Overview of the Humanities According to the Tipitaka

There are altogether 8 parts to this chapter. The first part is about the history of the earth and humanity. The information was taken from the Agganna Sutta and the Cakkavatti Sutta. These Suttas show how earth and humanity experience endless cycles of maximum growth and maximum decline as a result of human action. Decline is brought about by unwholesome deeds whereas growth is brought about by wholesome deeds.

The other 7 parts deal with how human beings are made up of body and mind, and that the mind tells the body to do different things. In its natural state, the mind is bright but it becomes gloomy because of defilements. A mind tainted with defilements cannot see the world for what it really is; therefore, it can cause our thought, word, and action to be unwholesome. Unwholesomeness results in Papa or demerit and demerit yields ill consequences. Demerit awaits its turn to inflict every sort of pain and suffering in our life. The only way to alleviate the situation is to keep the mind bright by accumulating a large amount of Punna or merit. Merit has the power to cleanse the mind of defilements and demerit.

Whether a person accumulates wholesome deeds or unwholesome deeds depends on his habits. Good habits foster good deeds and the accumulation of merit whereas bad habits foster evil deeds and the accumulation of demerit. Habits are formed inside the five rooms that we use in our daily life. These include the bedroom, the bathroom, the kitchen, the dressing room, and the office. To form good habits requires us to properly manage the way we utilize these five rooms.

The life of every human being is determined by his overall Kamma. When one commits evil deeds, one will experience decline now as well as in the next existence. After one dies, one will be reborn in the state of loss and woe which includes the Hell Realm, the Peta Realm, the Asurakaya Realm, and the Animal Realm. Good deeds cause one to meet with success and prosperity in this existence. After one dies, one will be reborn in the States of Happiness. When one has accumulated merit and pursued Perfections to the fullest extent, one will be able to extinguish all defilements and attain Nibbana. The attainment of Nibbana is every living being's ultimate life goal.

It is very fortunate to be born a human being because it is the life form that can best accumulate merit and pursue Perfections. Celestial beings are now enjoying the fruits of their past wholesome deeds and they can accumulate merit to a certain extent but nothing like the way human beings can. After all, it is as a human being that every great Bodhisatta attains Buddhahood.

Celestial beings and their celestial wealth result from the merit accumulated during their existence as a human being. Celestial wealth is specific to each celestial being; therefore, it cannot be shared. As animals and hell beings, they are reaping the ill consequences of the past misdeeds committed during their existence as a human being. It is practically impossible for them to accumulate merit.

## **5.2 The History of Earth and Humanities**

The history of earth and humanity can be divided into three periods: the first period, the middle period, and the final period.

### **1) The First Period**

The Lord Buddha teaches that our earth does not stay the same forever. It came into being. It exists. And it will eventually come to an end. This cycle of birth, existence, and death continues forever and ever. The Lord Buddha says, "At a certain time after an interminably long period, the earth undergoes destruction. After the earth's destruction, human beings will be reborn in the Brahma Realm of Abhassara. These are the ones that have achieved meditative attainments. They are sustained by rapture. Their body is self-illuminating. They can travel through the air. They live in their beautiful celestial castles for a very long time. After the earth was reformed and became habitable, these Brahma Beings

cease to be in the Brahma Realm and are reborn on earth living in beautiful dwellings. Human beings of the first period possess meditative attainments and are asexual. They are sustained by rapture. Their body is self-illuminating. They can travel through the air. This situation lasts for a very long time.”

### **The Galaxy and Food Source during the First Period**

During the first period, the galaxy is made up of water. All is darkness. There are no moon, no sun, and no stars. There are no nights and days. There are no months, seasons, or years. An interminably long time passes by, clumps of ambrosial soil float on the water surface. Ambrosial soil has the color of clarified butter. It smells and tastes like honeycomb. Later, one human being wants to know what it is and uses his fingers to scoop up the ambrosial soil clump and tastes it. The ambrosial soil permeates his entire body causing Tanha or craving that has lain dormant within him to be awakened. Meanwhile, other groups of human beings begin to consume the ambrosial soil by forming it into bite-size pieces.

As a result, these early humans eventually lost their self-illumination. This is the time when the moon, the sun, the stars, nights, days, months, seasons, and years appear. The long-term consumption of ambrosial soil causes the body of early humans to become coarser and coarser. As their body changes, there appear differences in their complexion. The early humans that have a fine complexion begin to look down on those with a poorer complexion. They become prideful because of their fine complexion. At this point, ambrosial soil disappears.

What replace ambrosial soil are soil pieces. These early humans consume the soil pieces for a very long time causing their bodies to become coarser and coarser still. Differences in complexion become more prominent and prejudice abounds. At this point, the soil pieces disappear.

What replace soil pieces are soil bunches. These early humans consume the soil bunches for a very long time and their bodies become very coarse. Differences in complexion become more and more prominent and prejudice runs rampant. At this point, the soil bunches disappear. What replaces soil bunches is wheat. In the early period, wheat grows naturally and does not need to be cultivated. The wheat grain has no bran or chaff. It is white and fragrant. In the morning, these early humans go out to pick the wheat grains and eat them in the morning. In the evening, new and ripe wheat grains grow to replace the picked grains.

## **Building Shelters**

These early humans subsist on wheat for a very long time and their bodies become increasingly coarser. Differences in their complexion become increasingly prominent. Male and female genders begin to appear. As some members of the opposite gender keep staring at each other, they become sexually aroused and eventually have sexual intercourse. Sexual intercourse is not yet a widely accepted practice and some of the early human couples have to build themselves a shelter in order to hide their sexual activity from view.

As one early human being becomes lazy, he decides to pick more wheat grains so that he can consume them in the morning and at night instead of picking them once in the morning and again the evening. Others begin to follow his example and before long, these early humans begin to hoard more and more of the wheat grains. Re-growth of the wheat grains begin to slow down and in some places stop completely. Meanwhile, the quality of the wheat grains begins to suffer. They are now covered with bran. Some are covered with chaff. As a result, these early humans agree that each of them should be allotted so much wheat and this requires the division of land.

## **The Birth of Monarchy and Government**

Once division of land occurs, one early human being decides to keep his share of wheat and eat what belongs to another person instead. In other words, he steals from his neighbor. He is vilified for his action, so he lies and ends up being beaten by a club. The elders then get together to confer with each other about the problems and they agree that they will appoint one person to chastise and punish wrongdoers. In return, they will each give some of their wheat to this person. As a result, the term “appointment” or “Sammati” appears. Next is the term “king” or “Kshatriya”. And the third term to appear is “Raja”.

Some groups of early humans believe that once unwholesome deeds have occurred, they should perform a ceremony in which unwholesomeness can be floated away. Thus appears the term “Brahmin”. Some groups of early humans that practice sex begin to work for a living. Thus appears the term “Vaisya”. The rest of early humans have a mean disposition and it is their duty to perform menial tasks. Thus appears the term “Sudra”. Later, a certain number of Kshatriyas, Brahmins, Vaisyas, and Sudras lament their shortcomings and leave their homes to take up the religious life as a recluse. Thus appears the term “Samana”.

The above is all that the Lord Buddha has to say about the birth of earth and humanity as recorded in the Agganna Sutta. Early humans live for an interminably long time, their average lifespan being one Asankheyya Year. As human beings commit an ever increasing number of misdeeds, their average lifespan decreases further and further. At the same time, the natural environment becomes less and less congenial and the quality of food, etc., suffers. When human beings reach the average lifespan of 80,000 years, the Universal Monarch called “Talahanemi” happens. The Lord Buddha gives us this information in the Cakkavatti Sutta. Here, the contents contained in this Sutta are divided into two periods: the Middle Period and the Final Period.

## **2) The Middle Period**

According to the Lord Buddha, the Universal Monarch “Talahanemi” was a virtuous ruler and he had dominion over the four human worlds. As a Universal Monarch, he possessed seven kinds of precious treasures. He fathered more than 1,000 brave sons. The Universal Monarch subdued all the other monarchs with his virtue, and there is no need for weapons and bloodshed.

Hundreds of years, thousands of years passed by and the Precious Wheel (the foremost precious treasure) moved from its housing. The Universal Monarch realized how his life would soon come to an end. Therefore, he abdicated the throne in favor of his eldest son. He shaved off his hair and mustache, put on the saffron robe and took up the religious life as a Yogi. After the Universal Monarch had practiced asceticism for 7 days, the Precious Wheel disappeared.

The new king had to go and see the Yogi to let him know that the Precious Wheel had disappeared. The Yogi said to his son, “Don’t be sorry that the Precious Wheel has disappeared. This treasure is not something that can be passed from father to son. However, you should practice the Imperial Virtues and on the full-moon day of Uposatha you should wash your hair, observe the Eight Precepts, and stay on the top floor of the castle. Then the Precious Wheel will reappear.”

## **The Imperial Virtues**

The Yogi taught the new king about the Imperial Virtues, “You must practice righteousness, worship righteousness, respect righteousness, admire righteousness, venerate righteousness, and honor righteousness. You must have righteousness as your victory flag. Let righteousness reign supreme. Manage and protect your citizens, your soldiers, the retinue of monarchs, the Brahmins, the wealthy people, the upcountry people, the recluses, the animals and the birds. You must exercise righteousness where people and animals are concerned. Do not do things that go against traditional practices. Anyone under your rule has no money; you are to give it to him.

You should visit the recluses that practice righteousness so that you can ask them about what is wholesome, what is unwholesome, what causes harm, and what does not cause harm. When you have learnt from them these things, then you must abstain from all things unwholesome but perform all things wholesome instead. Such are the Imperial Virtues.”

## **The Five Precepts**

After the new king practiced the Imperial Virtues as suggested by the Yogi, the Precious Wheel did reappear. The king got out of his seat. Holding the gold gourd in his left hand, he held the Precious Wheel in his right hand and raised it up<sup>1</sup> while saying “Let the Precious Wheel turn. Let there be great victory.” In that instant, the Precious Wheel turned toward the east. Whatever country the king and his four armed forces entered, the king of that country came out to greet them and said to the Universal Monarch, “Your Majesty is most welcome! I submit to you all that I own. Kindly give us your advice, Sire.”

The new Universal Monarch said, “You and your citizens must not kill, must not steal, must not commit sexual misconduct, must not lie, and must not consume alcohol. And I return to you all that you own.” The Precious Wheel took the Universal Monarch to other cardinal points where he advised all the different kings and their peoples to observe the Five Precepts.

The second Universal Monarch ruled with righteousness by practicing the Imperial Virtues. His citizens observed the Five Precepts. When he approached old age, he abdicated the throne in favor of his eldest son, and took up the religious life as a Yogi as his father had done before him. The succession proceeded in this manner until it was the time of the seventh Universal Monarch. This Universal Monarch ruled with righteousness and when he approached

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<sup>1</sup> The Precious Wheel is a supernatural treasure in that it has many supernatural powers. It can appear in any size from the smallest size (can be held by a human hand) to the largest size (can transport an entire castle with a large number of passengers). It can travel at great speeds (so fast as to be incomparable to today’s rockets). Etc.

old age, he abdicated the throne in favor of his eldest son, and took up the religious life as a Yogi. Seven days after he had taken up the religious life, the Precious Wheel disappeared.

### **The Period of Decline**

After the Precious Wheel disappeared, the eighth king felt very bad about it but he did not go to see his father the Yogi in order to learn about the Imperial Virtues. He ruled the people as he wished and things were no longer the same for his subjects.

Court officials told the king about the Imperial Virtues and the king practiced them. However, he neglected to give to the needy. Soon someone started to steal from others. Once the thief was caught and brought to trial, the king learnt that he stole because he did not have any money. The king gave some money to the thief and let him go. Later, more and more thieves were arrested and they were all given money by the king.

Now, many people wanted to steal so that they could be arrested and given money by the king. Finally, the king decided to have all the thieves arrested, had their heads shaved before parading them in front of the people through every road and every lane along with a town-crier before they were beheaded. Consequently, some people began to make their own weapons thinking that when they robbed anyone, they would use their weapon to cut off the head of the victim. Burglary was widespread in the city, and the homeowners that put up resistance were decapitated by the burglars.

### **Decreasing Lifespan**

When the king did not give to the needy, many resorted to stealing. There was a widespread use of weapons, and many people were killed as a result. Therefore, within one generation, the human lifespan of 80,000 years decreased to 40,000 years. Lying became widespread and within just one generation, the human lifespan of 40,000 years decreased to 20,000 years. With the widespread use of divisive speech, within just one generation, the human lifespan of 20,000 years decreased to 10,000 years. Now sexual misconduct became widespread and within just one generation, the human lifespan of 10,000 years decreased to 5,000 years. The use of offensive speech and nonsensical speech caused the human lifespan of 5,000 years to decrease to 2,500 years and some to 2,000 years within just one generation.

Later, covetousness and thoughts of revenge abound and within just one generation, the human lifespan of 2,500 years decreases to 1,000 years. Now Wrong View became widespread and within just one generation, the human lifespan of 1,000 years decreased to 500

years. Next, incestuous and homosexual practice became widespread and the lifespan decreased to 250 years and some to 200 years.

During the Middle Period, human lifespan had gone from 80,000 years to 250 and in some cases 200 years. Earth and humanity continued to go through a decline in the Final Period until it reached the lowest point.

### **3) The Final Period**

The level of unwholesomeness was ever increasing. Human beings in this period did not support their aging parents. Nor did they support righteous monks and recluses. Elders were not shown due respect. Within one generation, the average human lifespan of 250 years decreased to 100 years. As the level of unwholesomeness increases, the average human lifespan will eventually decrease to 10 years. Girls can marry when they reach five years of age. And the best food available during this period is long-leaved paspalum, a type of cereal.

In the Final Period, the Tenfold Wholesome Course of Action is not being practiced at all. What is being practiced instead is the Tenfold Unwholesome Course of Action. Incestuous relationships prevail in the same way that they are in such animals as goats, chicken, sheep, pigs. Human beings of this period are vindictive and violent. Mothers harbor thoughts of revenge against their children and vice versa.

At the lowest point of this period, an event called “Satathantarakappa” will occur where human beings mistake each other for animals and kill each other off. The mass killing lasts for seven days. But there will be a group of human beings that are saddened by all the killing, and flee to the forest. There, they will subsist on roots and fruits. When the seven days period is over, they will come out of the forest. They will hug each other being glad to be alive. From that point on, they are determined to perform wholesome deeds by first abstaining from killing. As human beings continue to perform wholesome deeds, their lifespan will become longer and longer until it reaches 80,000 years once again.

When human beings reach the average lifespan of 80,000 years, a Universal Monarch called “Sankha” will happen. The great Bodhisatta “Ariyamaitreya” will be reborn on earth in order to become self-enlightened as the next Lord Buddha. Masses will attain Enlightenment through His Teachings. From then on, human beings will continue to perform wholesome deeds at an ever increasing level causing their lifespan to increase further and further until it reaches one Asankheyya Year once again and remains so for an interminably long time. Then earth and humanity will go through a decline yet again until the human lifespan decreases to 10

years. The cycles of growth and decline will continue until earth and certain parts of the Cakkavala or galaxy are annihilated.

#### **4) Decline Is Caused by Unwholesomeness**

In learning about the history of earth and humanity, it can be concluded that the decline of earth and humanity is caused by unwholesomeness whereas wholesomeness causes growth. Unwholesomeness is in turn caused by Kilesa or defilements.

##### **4.1) Kilesa Is the Cause of Unwholesomeness**

Kilesa or defilements include Tanha or craving, arrogance, laziness, greed, etc. Kilesa can be divided into three main families: Lobha or greed, Dosa or anger, and Moha or ignorance. Kilesa or defilements drive human beings to commit such unwholesome deeds as killing, stealing, committing sexual misconduct, lying, being prideful, etc. Unwholesome deeds cause humans and their environment to deteriorate. Average human lifespan becomes shorter. Human complexion becomes poorer; the quality of food is lower, etc.

##### **4.2) Unwholesomeness Is Spread through Keeping the Company of Fools**

Early humans enjoyed a comfortable and carefree lifestyle. They were sustained by rapture. They possessed self-illumination. A change for the worse occurred when one individual decided to taste the ambrosial soil, thereby awakening his craving, which had lain dormant in his mind for a very long time. Moreover, others began to follow his example by tasting the ambrosial soil as well. Later, other unwholesome deeds were committed by fools, which set poor examples for others to follow. Widespread unwholesomeness eventually led earth and humanity to suffer a precipitous decline.

##### **4.3) Differences Caused Kilesa to Be Awakened**

Differences in complexion gave rise to prejudice. Differences in gender gave rise to sexual arousal, sexual activity, and finally sexual misconduct.

#### **4.4) Mistakes on the Part of Government Cause Some Humans to Commit Unwholesome Deeds.**

From the Cakkavatti Sutta, we learn that the first seven Universal Monarchs practiced righteousness according to the Imperial Virtues and they made sure that the needy were given the funds needed to earn right livelihood. However, this was not the case for the eighth king who initially had been ignorant of the Imperial Virtues and ruled the country as he pleased. When he did practice righteousness according to the Imperial Virtues, he neglected to provide for the needy. Being destitute, these people had to resort to stealing and other vices in order to survive.

Wholesomeness arises when humans observe the Five Precepts, practice the Ten-fold Wholesome Course of Action, etc. Human beings that perform wholesome deeds serve as good examples for others to follow. When wholesomeness is widespread, earth and humanity thrive in terms of a long lifespan, a fine complexion, better quality food, and improved environment.

### **5.3 The Human Life: Its Meaning and Its Components**

The Pali term used for human beings is “Manussa”. This term is derived from two words: “Mana” and “Ussa” where Mana means “mind” and Ussa means “high”. Therefore, Manussa means a high-minded person. A person is high-minded because he is virtuous and behaves in an ethical manner.

Humans and animals are made up of Khanda-5 or the Five Aggregates. These include Rupakhanda or corporeality, Vedanakhanda or feeling, Sannakhanda or perception, Sankharakhanda or mental formations, and Vinnanakhanda or consciousness. The first aggregate or Rupakhanda belongs to the body whereas the rest of the aggregates are called Namakhanda and they belong to the mind.

Rupakhanda or corporeality is made up of four elements. These include earth, water, fire, and wind.

The earth element includes hair, nails, teeth, skin, flesh, tendons, bones, bone-marrow, spleen, heart, liver, connective tissue, kidneys, lungs, small and large intestines, etc.

The water element moistens, thickens, and binds the earth element together. It includes bile, phlegm, pus, blood, sweat, fats, tears, saliva, urine, etc.

The fire element keeps the body warm, makes the body age, aids digestion, etc.

The wind element includes turgor pressure, upward wind, downward wind, wind in the stomach, wind in the intestines, inhaled and exhaled breaths, etc.

Namakhanda or mind is made up of Vedana (feeling or seeing), Sanna (perception or memory), Sankhara (mental formations or thought), and Vinnana (consciousness or cognition).

Most scientists and most people think that the mind and the brain are one and the same thing when in fact they are not. The brain is part of the body. The mind is a separate entity dwelling in the body and is connected to the body. Our mind is made up of a refined element; therefore, it not visible to the physical eyes. We can see our mind only through meditation practice.

Our brain and mind work together but the mind is the control center. Seeing or feeling, memory, thought, and cognition are functions of the mind and not of the brain. Whether a person is intelligent or stupid is a function of his Panna or Wisdom Sphere. The brain plays a secondary role. The brain is an instrument by which Panna is expressed. It is for these reasons that the study of Albert Einstein's brain did not reveal anything that sets him apart from the rest of humanity.

There is one interesting example confirming the fact that the brain and the mind are separate entities. In March 2551 B.E., a news agency reported about a man who had been brain-dead for 4 months. His name was Zach Dunlap, aged 21. His parents were told that their son had died from a car accident on November 19, 2550 B.E. at the United Regional Health Care System Hospital in Texas. His body was being kept at the hospital so that his organs could be donated later.

Four months later, after his family said their final farewell to him and while the doctor in charge was getting ready to remove Zach's organs, the doctor checked for any response from Zach for the last time. It so happened that Zach's hands and feet began to move just then. And after having been in the hospital for 48 additional days, he was allowed to return home.

Zach said in NBC's Today Show on Monday, March 25, 2551 B.E. that he had no memory of the car accident but he could very clearly remember the things that happened 6 hours prior to the accident and little of the things that happened an hour prior to the accident. He remembered very well how he heard the doctor tell his parents that he was dead. He could remember things in spite of the fact that his brain had not been functioning at the time and there had been no blood circulation in his brain while he had been clinically dead. This incident proves that the brain and the mind are two separate entities.

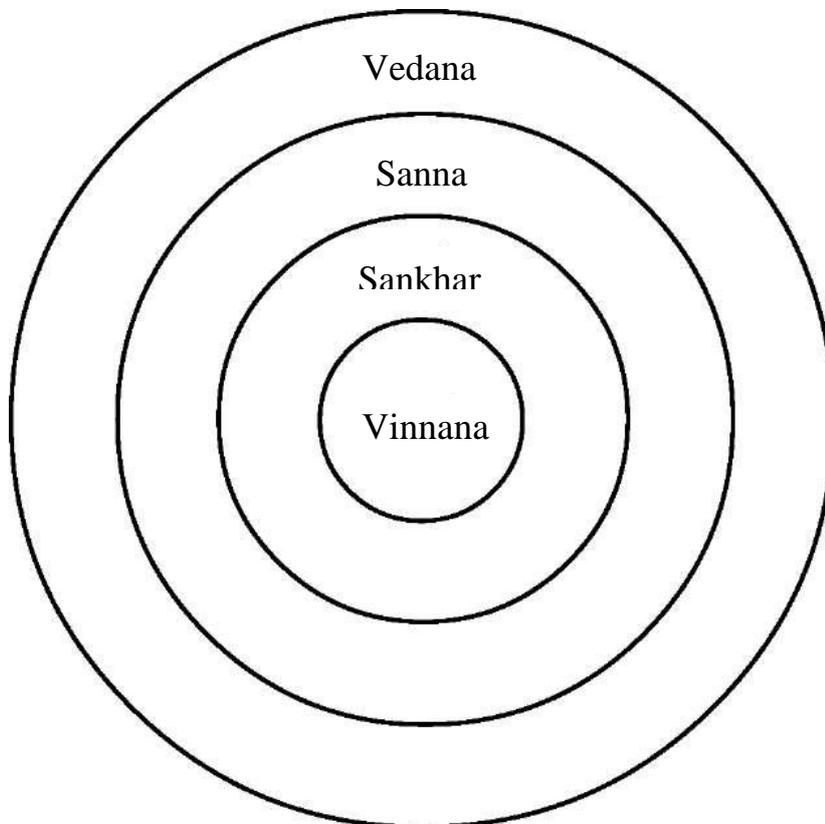
More details about the brain and the mind will be covered in Chapter 10.

Khanda-5 or the Five Aggregates possess the Three Characteristics of impermanence, suffering, and the absence of true selfhood. The Five Aggregates undergo deterioration causing us to suffer physically and mentally in the process. We have no control over them and cannot tell them not to age, not to change, etc.

Rupakhanda and Namakhanda are connected to each other and they depend on each other. Our body needs our mind in order to stay alive while our mind needs our body to be its abode.

### **The Relationship between Citta and Mind**

The mind is made up of Vedana (feeling or seeing), Sanna (perception or memory), Sankhara (mental formations or thought), and Vinnana (consciousness or cognition). Vedana has the appearance of a crystal-clear sphere, so do Sanna, Sankhara, and Vinnana. And these four crystal spheres form the four components of the mind. At the innermost core of the mind is the Vedana Sphere, next to it is the Sanna Sphere and the Sankhara Sphere respectively, and the Vinnana Sphere is at the outmost part of the mind. Please see the attached diagram.



**Citta is the name used to call the Sankhara Sphere.**

## 5.4 The Human Mind: Its Importance and Its Nature

Our mind is crucially important, since it controls our thought, our word, and our action. In terms of body and mind, the mind is the boss while the body is the subordinate.

The Lord Buddha teaches that happiness and unhappiness experienced by living beings are the manifestations of the mind. It is for this reason that the Lord Buddha teaches us to keep our mind bright and clear. It is through the bright and clear mind that we can think good thoughts, say honest and kind words, and perform good deeds. And it is our good deeds that keep us happy.

A person with a good and strong mind can meet with success in spite of physical limitations. On the contrary, a weak mind can hardly meet with success in spite of a strong body. A weak-minded person is easily discouraged and may even resort to suicide in order to escape life's problems. A strong-minded person sees an opportunity in the face of a crisis.

Miles Hilton-Barber<sup>2</sup> is a British adventurer who, despite becoming blind at 30, has undertaken a variety of expeditions all around the world to raise awareness and money for a charity organization. His more recent adventures included flying from London to Sydney in a micro-light, climbing Mont Blanc and running across the Gobi Desert. An inspiration to many people across the globe, he encourages people to do what they dream and not let things hold them back.

Meanwhile, a 31-year-old man found himself owing 80,000 baht to a loan shark, and decided to sell one of his eyes for 120,000 baht in order to pay off his debt.<sup>3</sup>

The two drastically different cases cited above illustrate very clearly how our mind is the boss and the way our life turns out is dictated by the way our mind works. Being courageous, bold, and determined, Miles Hilton-Barber does not allow his blindness to deter him from accomplishing all that he wants. In other words, he does not see blindness as a crisis but he sees opportunities instead.

In its natural state, our mind is bright and pure but it has been made gloomy by our defilements.<sup>4</sup> A gloomy mind causes us to think evil thoughts, say evil words, and perform evil acts.

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<sup>2</sup> Wikipedia

<sup>3</sup> "Kao Sod" Newspaper 2550 B.E. (online)

<sup>4</sup> *Manorothpurani Aṭṭhakathā-Aṅguttaranikāya Ekanipāta*. Bangkok: Mahamakut Buddhist University Press, vol. 32, p. 104-105

A mind thick and gloomy with defilements has lost its capacity to differentiate between good and evil. In such a state, the mind is wont to make mistakes that bring about ill consequences for current and future existences. It is therefore crucially important that we endeavor to scrub our mind clean of defilements by accumulating as much merit as we can through such wholesome deeds as alms-giving, Precepts observation, and meditation practice. When our mind is bright and clear, it can differentiate between good and evil. It can see things for what they really are. It can see Truth. When our mind can function properly, we have a better chance at meeting with success in life.

## **5.5 The Cycle of Kilesa (Defilement), Kamma (Action), and Vipaka (the Consequences of Action)**

### **5.5.1 Kilesa: The Meaning and Families of Kilesa**

Kilesa or defilements have different meanings: gloominess, things that bring gloominess to the Citta, things that make the Citta gloomy, gloominess and dirt, hardship, aggression, termination, destruction, burning, heat and burning, suffering, the state of mind which causes it to be gloomy, impurity.<sup>5</sup>

Kilesa means things that make the mind gloomy.<sup>6</sup>

There are three main families of Kilesa or defilements: Lobha or greed, Dosa or anger, and Moha or ignorance. These three families of Kilesa are also called Akusalamula-3 or the three bases of unwholesomeness.

1) **Lobha** or greed results from our mind's hunger and it manifests itself as craving, covetousness, possessiveness, a need to accumulate things, etc.

Lobha causes an inordinate amount of greed and covetousness. A greedy person can still be hungry in spite of having great material wealth. A greedy person feels that he never has enough and always wants more. A greedy person is like a fire that continues to rage or an ocean that is never satiated with water.

2) **Dosa** or anger causes the mind to heat up, to want to destroy and hurt other people and things. This family of defilements causes the mind to heat up and boil over.

Dosa is destructive to oneself and others. When the mind is dominated by Dosa, even friends and family members are seen as opponents. One is not happy with oneself.

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<sup>5</sup> Major P. Longsomboon (2546 B.E.) "Magadha-Thai Dictionary" p. 194

<sup>6</sup> The Royal Institute (2525 B.E.) "Dictionary" p. 129

A person dominated by Dosa is like a bomb that goes off to hurt first oneself, then other people and things.

3) **Moha** or ignorance causes one's mind to be dizzy, misguided, inebriated, and dark. Moha means not having a clear understanding of things but being dominated by blind beliefs. One refuses to employ analytical reflection in order to arrive at the truth or to see things as they are in reality. A person dominated by Moha is like a person who has lost his way. He is misguided. He cannot appreciate another person's virtue. He is partial. He is disrespectful. Etc. Moha causes a person to commit unwholesomeness to a varying degree from a light misdeed to the gravest misdeed called "Anantariyakamma".

These three families of Kilesa force human beings and other living beings to commit misdeeds and incur Vipaka or the ill consequences of the misdeeds.

### 5.5.2 The Meaning and Types of Kamma

Kamma means an intentional act. The Lord Buddha says, "Cetanahan Bhikkhave kamman vadami cetayitava kamman karoti kayena vacaya manasa": Behold, monks, intention is called Kamma. Before a person performs an act with his body, his word, or his thought, he must first have intention. Therefore, Kamma is based on intention.

Intention means having a plan, a result or a purpose in your mind when you do something.

Kamma can be performed through the body, the word, and the thought. Kamma can be divided into two types: Wholesome Kamma and unwholesome Kamma

1) **Wholesome Kamma** is performed under the influence of Alobha (non-greed), Adosa, (non-anger), and Amoha (non-ignorance). Wholesome deeds are harmless deeds. Wholesome deeds cause the mind to be happy and joyful. Wholesome deeds are good, decent, and ethical. They are the sources of merit and Perfections. Wholesome deeds are defined by the Tenfold Wholesome Course of Action.

Kayasucarita means good physical conduct. There are 3 types of Kayasucarita.

- (1) Panatipata veramani: Abstaining from killing
- (2) Adinnadana veramani: Abstaining from stealing
- (3) Kamesumicchacara veramani: Abstaining from sexual misconduct

Vacisucarita means good verbal conduct. There are 4 types of Vacisucarita.

- (1) Musavada veramani: Abstaining from false speech

- (2) Pisunaya vacaya veramani: Abstaining from divisive speech
- (3) Pharusaya vacaya veramani: Abstaining from offensive speech
- (4) Samphappalapa veramani: Abstaining from nonsensical speech

Manosucarita means good mental conduct. There are 3 types of Manosucarita.

- (1) Anabhijjha: Non-covetousness
- (2) Abyapada: Non-hatred
- (3) Sammaditthi: Right View

Another name for the Tenfold Wholesome Course of Action is Human Virtues.<sup>7</sup> It means the basic virtues that every human being must possess. Without such human virtues, human behavior will be more like that of animals. There will occur killing, stealing, sexual misconduct, etc. Such unwholesome deeds cause rebirth in the Hell Realm. After an interminably long time in the Hell Realm, one will be reborn in the Animal Realm. Rebirth in the States of Unhappiness happens because one neglects to practice the Tenfold Wholesome Course of Action during one's existence as a human being.

Another category of wholesome deeds includes "The Ways of Making Merit" especially "The Three Ways of Making Merit". These include alms-giving, Precepts observation, and meditation practice. The Tenfold Wholesome Course of Action and the Ways of Making Merit are related to each other.

Kayasucarita and Vacisucarita are related to alms-giving and Precepts observation. Precepts observation is part of alms-giving because when one abstains from killing, one is keeping safe the lives of other living beings. When one abstains from stealing, one is keeping other people's possessions safe. When one abstains from sexual misconduct, one is keeping other people's spouses safe. Etc.

A person who gives alms regularly is generous and will not think of stealing. Therefore, alms-giving supports Precepts observation.

Manosucarita is related to meditation practice because the aim of meditation practice is to remove defilements from the mind. Meditation practice causes Anabhijjha or non-covetousness, Abyapada or non-hatred, and Sammaditthi or Right View to develop further and further. Meditation practice is the best way to train the mind.

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<sup>7</sup> *Aṭṭhakathā-Mahasihanāḍ Sutta. Aṭṭhakathā-Majjhimanikāya Mūlapaṇṇāsa*. Bangkok: Mahamakut Buddhist University Press, vol. 18, p. 67 and *Manorothpuranī Aṭṭhakathā-Aṅguttaranikāya Ekanipāta*. Bangkok: Mahamakut Buddhist University Press, vol. 32, p. 99-100

Most importantly, the enemy of Lobha or greed is alms-giving, the enemy of Dosa or anger is Precepts observation, and the enemy of Moha is meditation practice. Therefore, the regular practice of alms-giving, Precepts observation, and meditation is the best way to lessen all three families of Kilesa or defilements.

**2) Unwholesome Kamma** is performed under the influence of one's Lobha or greed, Dosa or anger, and Moha or ignorance. Unwholesome deeds cause harm, problems, tears, and the result is suffering. Unwholesome deeds are indecent, unethical, and evil. They are the sources of Papa or demerit. Unwholesome deeds are defined by the Tenfold Unwholesome Course of Action.

Kayaducarita means physical misconduct. There are 3 types of Kayaducarita.

- (1) Panatipata: Intentional killing
- (2) Adinnadana: Intentional stealing
- (3) Kamesumicchacara: Intentional sexual misconduct

Vaciducarita means verbal misconduct. There are 4 types of Vaciducarita.

- (1) Musavada: Intentional lying
- (2) Pisunaya vacaya: Intentional use of divisive speech
- (3) Pharusaya vacaya: Intentional use of offensive speech
- (4) Samphappalapa: Intentional use of nonsensical speech

Manoducarita means mental misconduct. There are 3 types of Manoducarita.

- (1) Abhijjha: Covetousness
- (2) Byabada: Hatred
- (3) Micchaditthi: Wrong View

### **5.5.3 Vipaka: The Meaning and Levels of Vipaka**

Vipaka means the consequences of Kamma.

There are two types of Vipaka: Punna or merit and Papa or demerit. Wholesome deeds give rise to merit whereas unwholesome deeds give rise to demerit. Once arisen, merit and demerit follow us across lifetimes waiting for their chances to yield their fruits.

Merit has the power to cleanse our mind. Merit is behind all of our success and happiness. Merit is the foundation of life. It promotes prosperity and security. Merit appears as a clear and bright sphere at the center of our body. Merit is made up of a refined element;

hence, it is invisible to the physical eyes. It is visible to those who have practiced meditation to the point where their minds are as refined as the merit element itself.

Merit exists in spite of the fact that we cannot see it. We cannot see electricity, and yet electricity exists. Microbes exist in spite of the fact that we cannot see them with our naked eyes. However, we can see them with the use of a microscope.

Parami (Perfections) is the concentrated form of Punna or merit.

The Commentary defines Papa or demerit as an obscene and evil thing. Demerit causes the mind to become gloomy. Demerit is the cause of rebirth. Demerit causes anxieties. Pure suffering is the fruit of demerit. Demerit is the cause of endless birth, aging, death, and rebirth.<sup>8</sup>

Wholesome and unwholesome Kamma performed through the body, word, and mind yield Vipaka or consequences. Kamma and its respective Vipaka dwell inside a person's mind. When a person has achieved elevated meditative attainments, he will be able to see Kamma and its respective Vipaka inside his mind as well as those inside other people's minds.

The Lord Buddha says, "Then with the mind collected, clarified, purified, flawless, void of taints, grown soft and pliable, fixed and come to utter peace, I directed the mind towards the knowledge of the arising and passing hence of beings; [4] so that with the purified deva-vision surpassing that of men, I behold beings, I know beings as they pass away or come to be—mean, excellent, fair, foul, in a good bourn,<sup>9</sup> in a bad bourn according to their actions, and I think: Indeed, those worthies<sup>10</sup> whose deeds were evil, whose speech was evil, whose thoughts were evil, abusers of the noble ones, holders of wrong views, incurring<sup>11</sup> the actions of wrong views—these at the breaking up of the body after death, have arisen in the waste, the bad bourn, the abyss, hell. Indeed, those good sirs whose deeds were good, whose speech was good, whose thoughts were good, who did not abuse the noble ones, holding right views, incurring the actions of right views—these at the breaking up of the body after death, have arisen in the good bourn, the heaven-world. Thus with purified deva-vision surpassing that of men, do I behold beings,

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<sup>8</sup> *Paramatthadīpanī Atthakathā-khuddaka-nikāya Itivuttaka*. Bangkok: Mahamakut Buddhist University Press, vol. 45, p. 282-283

<sup>9</sup> V A. 164, sugate ti sugatigate . . . duggate ti duggatigate, lit. gone to a good bourn, etc.; or, in a good bourn, etc.

<sup>10</sup> Bhonto.

<sup>11</sup> Kammasamādāna, thans. at G.S. iii. 295, "action's mould-ing," and at G.S. iv. 122, "Men Who Have Acquired This Karma. "

I know beings as they pass away and come to be—mean, excellent, fair, foul, in a good bourn, in a bad bourn according to their actions<sup>12</sup>

## 5.6 Habits

According to the Oxford Advanced Learner’s Dictionary, habit is a thing that you do often and almost without thinking, especially something that is hard to stop doing. Some people are in the habit of giving alms. Some people are in the habit of gossiping. Habits, be they good or bad, do follow us across lifetimes. Another relevant term is “innate character”. It means inborn character.

Venerable Pilindavaccha Thera, albeit being an Arahant, often addressed another person with the term “You lowly one”. This is a display of an innate character accumulated throughout many previous lifetimes.<sup>13</sup>

### 5.6.1 The Importance of Habits

Since habits cause us to do things often and almost without thinking, we must make sure that our habits are the kinds that encourage us to perform good deeds on a regular basis. The Most Venerable Phrabhavanaviriyakhun says that “Habits are more important than knowledge.” However much secular knowledge and Dhammic knowledge we may have, if we have bad habits, we will perform evil deeds on a regular basis. Examples of bad habits include smoking, drinking, going out and carousing at night, using the services of prostitutes, etc.

### 5.6.2 How Habits Are Formed

Dr Maxwell Maltz wrote the bestseller “Psycho-Cybernetics”. Originally a plastic surgeon, Maltz noticed that it took 21 days for amputees to cease feeling phantom sensations in the amputated limb. Upon further observations he found it took 21 days to create a new habit.<sup>14</sup> Since then the '21Day Habit Theory' has become an accepted part of many self-help programs.

### 5.6.3 The Five Rooms Where Habits Are Formed

Having studied the Tipitaka in-depth and taught close to one million people throughout these past 40 years, the Most Venerable Phrabhavanaviriyakhun comes to the conclusion that there are five rooms in our daily life where habits are formed. These include

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<sup>12</sup> This passage=S. ii. 122 f.

<sup>13</sup> *Manorothpurani Atthakatha-Anguttaranikaya Ekanipata*. Bangkok: Mahamakut Buddhist University Press, vol. 32, p. 428

<sup>14</sup> Google Answers

the bedroom, the bathroom, the kitchen, the dressing room, and the office. A student's office is his classroom. A rice farmer's office is the rice paddies. Etc.

From the time we wake up to the time we go to bed, it is these five rooms that we spend our time in. As soon as we wake up in the morning, we go from the bedroom to the bathroom. We have our breakfast in the kitchen, get dressed in our dressing room, and leave for work. We repeat the same routine in the evening and at night after we come home from work. In the meantime, our habits are being formed within these five rooms.

#### **5.6.4 How to Form Good Habits**

To form good habits requires that we know how to utilize these rooms properly. The Most Venerable Phrabhavanaviriyakhun says that good things need to be cultivated but bad things grow naturally and do not need to be cultivated at all. Rice needs to be cultivated but weeds do not. Likewise, bad habits are formed naturally just by the way we go about our daily life. Good habits, however, must be cultivated.

Before we can utilize these five rooms properly, we must first create a proper environment in these rooms starting from the shape and size of the room, the necessary furnishings, as well as the people in these rooms. Utilizing these rooms properly means using them to form good habits.

- (1) **The size and shape of the room:** If we want our children to chant and practice meditation daily before bedtime, we need to design our bedrooms in such a way as to be conducive to chanting and meditation practice. Bedrooms should be quiet and protected from outside noises. They should have good ventilation. There should be space for a small altar, etc. The design of the other four rooms must also be conducive to the proper use of each room in order to bring about good habits.
- (2) **The necessary furnishings:** The bedroom should be furnished with a portrait of the Lord Buddha or a small altar. It should be the place where merit-making pictures are kept so that one can look at them and be reminded of the merit one has accumulated. This habit helps one to sleep well at night. Mattresses should not be too soft. Etc. Things that should not be in the bedroom include computer, television, sexually provocative pictures of movie stars, rock stars, etc. The furnishings of the other four rooms must also foster good habits.
- (3) **People in the room:** In this case, people mean all the individuals that play an important role in one's life. These are the people in one's Six Directions: To the front are one's

parents, to the back are one's spouse and children, to the right are one's teachers, to the left are one's friends, above are the righteous monks, and below are one's subordinates.

Every human being meets and interacts with individuals in the Six Directions in these five rooms on a regular basis. If these individuals are virtuous, one hears and sees good and decent things on a regular basis. One learns to be virtuous from these individuals and their fine examples. On the contrary, if the people in one's Six Directions are not virtuous, one hears and sees bad and indecent things on a regular basis. One ends up learning to be bad and indecent from these individuals and their poor examples.

The Lord Buddha says that we become like those we associate with. He teaches us to associate with virtuous people and to stay away from fools. If one's parents happen to be bad and indecent, one must take care not to copy their poor examples. One should patiently act as a virtuous friend to one's parents by encouraging them to make merit, attend the temple and listen to Dhamma lectures, etc. Once they have more and more opportunities to perform wholesome deeds and listen to Dhamma lectures, they will be more inclined to change for the better.

**(4) Utilizing the rooms:** The same principle applies in that one uses each room in such a way as to form good habits. Certain rules apply to using, for example, the bedroom.

- 1) Bedtime should be no later than 10 p.m.
  - 2) Chant before going to sleep.
  - 3) Practice meditation and radiate loving-kindness to all beings.
  - 4) Recall all the merit earned and make a resolute wish.
  - 5) Fall asleep in the sea of merit by resting your mind at the center of your body called the 7<sup>th</sup> base and think of the Lord Buddha or the crystal sphere. If possible, sleep on your right side. This is the best sleeping position for maintaining awareness and good health.
  - 6) Get up early in the morning.
  - 7) Wake up in the sea of merit by resting your mind at the center of your body and think to yourself, "I'm fortunate to have survived another day. I wish all living beings happiness. As for me, I will surely die." This way, you will be prepared to exercise heedfulness as you go about your business in your daily life.
  - 8) Make your bed.
- Etc.

In following these rules, you will learn to be punctual. You will learn to cultivate the habit of merit-making. You will learn to cultivate loving-kindness for all beings. You will learn to be heedful, tidy and neat, etc. More importantly, you can earn merit every day and every night. The result will be rebirth in the States of Happiness. For those who are still watching television or using the computer until late at night, getting up late, etc., they need to reconsider their existing habits and think about forming new and good ones instead. Certain rules also apply to the use of other rooms, all for the purpose of helping you to form good habits.

## **5.7 Life Is Determined by Kamma**

Humans and other living beings are born with ignorance. We do not know why we are born. We do not know why some people are born wealthy while others are born poor. We do not know why some people are born with disability and others are born healthy. Etc. Some people are under the impression that our life is determined by Brahma or some divine entities.

Most human beings hold such a belief because they do not possess “Dibbacakkhu” or ‘Divine Eye’ in the same way that the Lord Buddha and the Arahats do. If we possess Divine Eye, we will know that our life is determined by our Kamma as stated by the Lord Buddha, “Kammuna vattati loko.” Kamma determines the life of every living being. Kamma here means all of the deeds that we have ever performed all throughout our previous existences up until now. Our life is determined mainly by the Kamma performed in our previous existences and partly by the Kamma performed in our current existence.

The Kamma performed in our previous existences can be compared to a mature tree that yields many fruits whereas the Kamma performed in our current existence is like a young tree that yields few fruits. Most people do not understand the working mechanism of the consequences of Kamma and rush to conclude that Kamma yields no consequences. They make this conclusion because they cannot yet see the fruits of the good and bad deeds performed by them based on the current existence alone. They may see how a particular person, who has committed misdeeds all his life, is still enjoying a high level of success and prosperity. At the same time, they may see how another person, who has performed good deeds all his life, is still experiencing all kinds of hardship. In the first case, the merit accumulated in this person’s previous lives is helping him to continue to be successful and

prosperous while the misdeeds accumulated in the current existence are not yet yielding their fruits. But these will most certainly yield their fruits in this person's next existence. In the second case, the person is reaping the fruits of his past misdeeds while the good deeds accumulated in the current existence are not yet yielding their fruits. But these will most certainly yield their fruits in this person's next existence.

The Most Venerable Phrabhavanaviriyakhun says that if we perform good deeds and expect them to yield fruits right away, we are setting ourselves up for disappointment. As a result, we may feel discouraged and do not want to continue doing good deeds. But if we performed a misdeed like lying and all of a sudden our teeth fell out then the world will most certainly be full of toothless people and we would not like things to happen that way either.

## **5.8 The Objective of Human Life**

According to the Tipitaka, the objective of human life has three levels: Ditthadhammikatta or present benefits, Samparayikatta or future benefits, and Paramattha or the ultimate benefits.

### **1) The objective of human life at the basic level**

This involves the accumulation of material wealth so that one can provide for oneself and one's family. It requires one to possess the attributes of a good and decent householder, which means earning right livelihood. The work that one does must be honest, lawful, and ethical. One may be a businessman, a physician, a teacher, a trader, a farmer, etc. Whatever one chooses to do, one is determined to earn a good living and fulfill the objective of human life at the basic level. Livelihood and morality must go hand-in-hand. In this way, one benefits not only oneself but others in society as well.

### **2) The objective of human life at the intermediate level**

This involves the accumulation of merit as provisions for one's future existences. One earns right livelihood; at the same time, one also finds every opportunity to make merit. As long as living beings are still mired in defilements, they must continue to undergo the round of rebirth indefinitely. Therefore, it is very important that we make provisions for future existences in the form of merit, since merit is the only kind of wealth

that we can take with us to the hereafter. If we put all of our effort into accumulating material wealth for the current existence without any regards for our hereafter, our life would not be that different from the life of a bird or other animals. The human body is the most conducive to the accumulation of merit and we must take advantage of our human form by accumulating every form of good deeds and earning as much merit as possible.

### **3) The objective of human life at the ultimate level**

This involves the practice of meditation for the complete removal of defilements and the attainment of Nibbana after the manner of the Lord Buddha and the Arahats. Pain and suffering is inherent in every life still trapped in the round of rebirth.

To end pain and suffering and to know eternal bliss, we must endeavor to undertake extreme self-training through the pursuit of the Ten Perfections or Parami-10. These include Generosity Perfection, Morality Perfection, Renunciation Perfection, Wisdom Perfection, Endeavor Perfection, Endurance Perfection, Truthfulness Perfection, Resolution Perfection, Loving-kindness Perfection, and Equanimity Perfection.

The path of Perfections pursuit is fraught with obstacles in the forms of one's own defilements, other people's defilements, and the ill consequences of one's past misdeeds. When Perfections have been pursued to the fullest extent, one's defilements are completely extinguished, the ill consequences of one's past misdeeds dissolve, one attains Arahatship and one's round of rebirth comes to an end.

A wise person understands that while accumulating material wealth, he must also earnestly accumulate merit by giving alms, observing the Precepts, practicing meditation, etc. He knows to make a resolute wish to attain the ultimate goal of Nibbana. He knows to design his life in such a way that he can spend every future lifetime accumulating merit and pursuing Perfections until he can attain Nibbana.

### **4) The objective of human life and its importance**

Our life-goal is extremely important because it is what we can work toward. Our every thought, word, and action in our daily life can then be geared toward accomplishing our life-goal.

Our Lord Buddha and the Arahats are our role models when it comes to accomplishing our life-goal. When the Lord Buddha first started out aspiring to Buddhahood, He was just like us, an ordinary human being. In that existence, He was swimming in the sea carrying His mother on His shoulders after a shipwreck. It was then that He had an epiphany. He fully

understood the pain and suffering of life in the round of rebirth, and He was inspired to lead Himself and other living beings out of the pain and suffering of the round of rebirth. In effect, He made the decision then and there that He had to attain Self-Enlightenment and become one of the future Buddhas.

Having made the decision, He had put His life on the line pursuing Perfections lifetimes after lifetimes. Meanwhile, He had encouraged a large number of people to aim for life's ultimate goal and follow Him to Nibbana. After 20 Asankheyya Kappa and an additional 100,000 Kappa, He finally became self-enlightened as the Lord Gautama Buddha and a whole host of Buddhists attained Enlightenment and followed Him to Nibbana. Since the beginning of time, there have been countless Asankheyya Buddhas. They are now dwelling in Nibbana in the form of Dhammakaya.

One may ask why are there still countless living beings remaining in the round of rebirth when countless Asankheyya Buddhas have already happened to date. One answer lies in the fact that the majority of living beings do not know what the true objective of life is.

The length of time each Buddha spends pursuing Perfections to the fullest extent may seem unimaginably long but it cannot be compared to all the time wasted by living beings living life without the correct life-goal lifetimes after lifetimes. In fact, if we were to count all the time taken by all the Buddhas dwelling in Nibbana in their pursuit of Perfections, it would still be shorter than the time wasted by living beings living life without the correct life-goal. For without the correct life-goal, one is essentially stuck.

There is a Chinese proverb, "The distance of 10,000 li begins with the first step". Once we have a goal in mind, the distance may be great but if we take the first step and continue to take more and more steps in the direction of our goal, we will eventually reach it.

The objective of human life is important at all three levels. If we set as our life-goal the accumulation of material wealth and we apply all of talents and abilities toward accomplishing it, we will be able to do it fairly quickly. This feat is exemplified by President Bill Clinton of the United States.

He said to the effect that when he was a young man just out of law school and eager to get his career started, he felt the sudden desire to put down novels and history books for a time in order to read books about how to be a success. He happened to find Alan Lakein's book titled "How to get control of your time and your life" and began to read it.

The book talks about the need for setting short term, medium term, and long term life goals. It then talks about how to prioritize goals in the order of importance. Category A goals are the most important. Next are Category B goals, and Category C goals are the least important. Under each goal in each category, one is to describe how one can accomplish it. President Clinton said that after 30 years he still had the paperback copy of the book with him. He was sure that the goals he had set for himself were sitting among the piles of documents even though he could not locate them. But he still remembered what he wrote for his Category A goals.

“I want to be a good person.  
I want to have a good marriage and good children.  
I want to have good friends.  
I want to meet with success in politics.  
And I want to write an excellent book.”

Whether I am a good person or not, that is for God to decide. My family is like other families in that it’s not perfect but life is marvelous. Of all the people I know, no one has more or better friends than me. I can honestly say that I became President because of my personal friends.

Life as a politician is my happiness. I love to be on the campaign trail. And I love my work in the government. I’ve tried to do everything correctly to help the people meet with the desired success, be happier, and live together in peace. These are my victories. As for the excellent book, who knows, but I know that it will make an interesting read.”<sup>15</sup>

## **5.9 The Importance of Human Life**

The student has already learnt that in each Cakkavala or galaxy, besides human beings there are a myriad of other kinds of living beings. Living beings that share our earth include animals and such disembodied spirits as ghouls, female tree deities, etc. The Celestial Realm is filled with male and female celestial beings. Above the Celestial Realm is the Brahma Realm where dwell Form and Non-Form Brahma Beings. At the bottom half of the Cakkavala are the realms of Petas, Asurakayas, and hell beings.

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<sup>15</sup> Bill Clinton (2004 B.E.) “My life” translated by Somkiat Onwimon (2548 B.E.) p. 11

All of these myriad living beings are former human beings. The Lord Buddha calls them non-humans. Non-humans that are now dwelling in the States of Happiness like the Celestial Realm and the Brahma Realm had all performed wholesome deeds during their existence as a human being. After they died, they were reborn in these States of Happiness. Non-humans that are now dwelling in the States of Unhappiness like the Animal Realm, the Peta Realm, the Asurakaya Realm, and the Hell Realm had all committed unwholesome deeds during their existence as a human being. After they died, they were reborn in these States of Unhappiness.

The Human Realm is the realm that determines where one will be reborn after one dies. If one accumulates plenty of Punna or merit, one will likely be reborn in the States of Happiness. However, if one accumulates plenty of Papa or demerit, one will likely be reborn in the States of Unhappiness.

As human beings, we have the best opportunity and faculty to accumulate the maximum level of Punna or merit and pursue Parami or Perfections especially when we have available to us the Lord Buddha's Teachings; hence, we have available to us the merit field in the form of righteous monks. On the other hand, the human faculty can also be used to accumulate the maximum level of Papa or demerit.

As celestial beings, they possess a refined physical form that can observe the Precepts and practice meditation but the fruit of their wholesome practices will not be as potent. Alms-giving cannot be practiced in the Celestial Realm, since every celestial being lives on his own accumulated merit and celestial wealth cannot be shared. If a celestial being wishes to give alms, he will need to do it in the Human Realm. For example, King Sakka, sovereign of the Tavatimsa Realm once changed his form into a decrepit old man in order to put food in Venerable Mahakassapa Thera's alms-bowl. He was however admonished by the venerable monk for stealing merit from a poor person. The reason was the venerable monk wished to help a human being rather than a celestial being. He had just emerged from Nirodha-samapati (a seven-day-period of deep meditation practiced by an Arahant), and whoever put food in his alms-bowl that day would become the millionaire of the city.

Animals can accumulate a small amount of merit if they happen to possess a high level of wisdom as in the case of a Bodhisatta that is reborn in the Animal Realm. Hell beings, Petas and Asurakayas cannot accumulate merit at all because they are paying for the fruits of the misdeeds committed during their existence as a human being.

The ultimate goal of every living being, humans and non-humans alike, is the attainment of Nibbana. All the past Buddhas had accumulated the maximum level of merit during their existence as a human being. And when they had accumulated merit and pursued Perfections to the fullest extent, they had to cease to be in the Celestial Realm and be reborn in the Human Realm in order to become self-enlightened as the Lord Buddha.

The Celestial Realm or the Brahma Realm is the place to reap for a time the rewards of one's accumulated merit. All celestial beings and Brahma beings must cease to be after their accumulated merit has been spent. They may be reborn as a celestial being, a Brahma being, a human being, an animal, a hell being, etc. They have to undergo the endless round of rebirth for as long as they still possess defilements.

On one occasion, our Lord Buddha was entering Rajagarh during His alms-round. He saw a piglet and smiled. Venerable Ananda Thera saw the Lord Buddha's smile and asked the Lord Buddha the reason for it. The Lord Buddha said, "Ananda, do you see that female piglet?" The venerable monk answered, "I do, Most Exalted One." The Lord Buddha said, "This female piglet was once a chicken living near a refectory during the time of the Lord Kakusandha Buddha. It had heard the Dhamma lectures of one particular monk who was a teacher of meditation practice. The chicken was later reborn a princess called "Ubbari". At one point, she went to the fecal pit and saw swarms of worms there. The sight caused her to develop the first Jhana. She was later reborn in the Brahma Realm. It was after the time in the Brahma Realm that she was reborn this piglet. I saw these things and they caused me to smile."

Such is but one example of life in the round of rebirth. Happiness in the Celestial Realm and the Brahma Realm, however long, is only temporary. It is for this reason that Bodhisattas and pursuers of Perfections do not want to linger over long in the Celestial Realm. They want to be able to accumulate merit in the Human Realm as often as possible so that they can shorten the time it takes for them to attain Nibbana and eternal bliss.

## **ASSIGNMENTS**

After you have finished studying this chapter, complete the test and the exercises provided in the workbook before proceeding to the next chapter.



# **Chapter 6**

## **Political Science**

### **According to the Tipitaka**

## Chapter 6

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### Political Science According to the Tipitaka

- 6.1 An Overview of Political Science According to the Tipitaka**
- 6.2 The Birth of Nation State**
- 6.3 The Objective of Politics**
- 6.4 “Meritocracy” Is the Heart of Political Science**
- 6.5 “Meritocracy” Is Not a System of Government**
- 6.6 Important Dhammic Principles in Government**
- 6.7 The Important Role of Economy in State Governance**
- 6.8 King Mahavijitaraj’s Governing Style**
- 6.9 An Analysis of King Mahavijitaraj’s Governing Style**
- 6.10 A Comparison between Secular Political Science and Dhammic Political Science**

## **Concepts**

1. Nation state and political institution in the early period came about in order to solve societal problems. The ruler of a nation state was in charge of making sure that the people lived together in peace. With the happening of the Lord Buddha and His teaching on the three levels of the objective of human life, the purpose of politics was then to create a suitable environment where people could achieve all three levels of the human life objective.
2. Government must promote morality together with economy. The two must go together. Morality is like the core of a tree whereas economy is like the tree bark. A good economy is conducive to the practice of morality. Morality keeps defilements under control such that in time they can be lessened and eventually they can be completely eliminated.

## **Objectives**

To enable the student to learn about the principles of political science according to the Tipitaka: the birth of nation state, the objective of politics, “Meritocracy” is the heart of political science, important Dhammic Principles in government, the importance of economy in government, King Mahavijitaraj’s governing style, and a comparison between secular political science and Dhammic political science.

## Chapter 6

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# Political Science According to the Tipitaka

### 6.1 An Overview of Political Science According to the Tipitaka

According to Buddhism, the objective of political science or politics lies in the creation of a suitable environment where people can achieve all three levels of the human life objective as explained in chapter 5.

“Meritocracy” is the foundation of political science according to the Tipitaka. Meritocracy is not a government system like democracy or communism; however, every existing government system can readily apply meritocracy to its system. In meritocracy, Dhammic principles are considered to be the most important rule of law in the same way that the Constitution is the most important rule of law in democracy. And everything is decided based on the Constitution. Likewise, in meritocracy, everything is decided based on Dhammic principles.

Dhammic principles in political science can be divided into two categories: Those having to do with the self-governing of the ruler and those having to do with the governing of the people. The first category includes “The Ten Virtues of a Monarch”, “The Tenfold Wholesome Course of Action”, “The Five Virtues of a Universal Monarch”, and “The Seven Conditions of Welfare”. The second category of Dhammic principles includes “The Four Principles of Service and Social Integration”, “The Four Causes of Partiality”, “The Tenfold Wholesome Course of Action”, and “The Five Precepts”. The Dhammic principles as applied to the governing of the people can be more precisely termed as “Moral principles”.

Moral principles are then the core of state governance. However, moral principles can be upheld only if the economy is good. When the economy is bad it is difficult for people to earn a decent living. Poverty can at times force people to commit such unwholesome deeds as stealing, etc. Therefore, moral principles and a good economy must go hand-in-hand. In other words, they must be developed together.

## 6.2 The Birth of Nation State

The Agganna Sutta gives us information about the birth of early humans, their lifestyle, the birth of a family, the origin of occupations and social castes, political thoughts, and political institution.

The Sutta tells us how the different systems concerning humans and human communities have evolved all throughout human history. These systems came about originally in order to solve the problems arisen from human beings' unwholesome deeds, which led to the deterioration of the environment and society as a whole. Early humans were Brahma beings that had ceased to be in the Brahma Realm of Abhassara. Initially, human beings lived together in peace and each person knew exactly what ought and ought not to do. No unwholesome deeds were committed just yet and there was no need for the rule of law. This was like the early period of Buddhism where there were only Ariya monks. Each monk knew exactly what ought and ought not to do, what was good and what was evil. During that period, no disciplinary rules were needed.

Early humans lived in groups and they cooperated with each other. Food was plentiful and replenishable. Sometime later, defilements in the forms of laziness and greed caused some of these early humans to hoard the food supply. Eventually food in the form of wheat regrew slowly and in some places no longer regrew. This brought about the division of land and the birth of personal possessions.

As time passed, more problems ensued because certain humans did not follow the agreed upon rules and theft became rife. Physical violence became a problem. The people met together and decided that there ought to be someone who could do the work of ensuring peace and orderliness in their community as well as keeping the people in line and punishing wrongdoers. They agreed to share part of their food with this person so that he did not have to harvest it himself. This is not unlike paying taxes to the government nowadays. After the meeting, the people went in search of someone who conducted himself properly, was capable, and had a personality that commanded respect and awe. They appointed this person as their chief.

What followed were the terms “king” and “Raja”. The way this person was elected as chief was not different from the way a person is elected Prime Minister or President today. Present day monarchs inherit their title but are no longer involved in state government.

The Free Dictionary provides the definition of nation state as a political unit consisting of an autonomous state inhabited predominantly by a people sharing a common culture, history, and language.

### 6.3 The Objective of Politics

From the Agganna Sutta, we learn that initially the objective of politics was to ensure peace in society, keep the people in line, and punish wrongdoers. However, with the happening of each Buddha and His Teaching on the three levels of the human life objective, the objective of politics became the creation of an environment conducive to the achievement of all three levels of the human life objective. This requires that a peaceful and orderly society be first created. This is carried out by keeping troublemakers under control while keeping good and decent people safe.

### 6.4 Meritocracy Is the Heart of Political Science

Meritocracy means upholding morality, regarding morality as the authority, performing every duty by the power of morality.<sup>1</sup> It means that every decision made in regards to government must be based on Dhammic principles. Meritocracy is the heart of government and the heart of political science according to the Tipitaka.

Dhamma means righteousness, goodness, etc. It also means the Lord Buddha's Teachings such as the Noble Eightfold Path, the Seven Conditions of Welfare, etc., as well as such pre-existing Dhammic principles as the Five Precepts, the Ten Virtues of a Monarch, the Tenfold Wholesome Course of Action, the Five Virtues of a Universal Monarch, etc.

Meritocracy is mentioned in the Raja Sutta where the Lord Buddha talks about the governing of the Four Human Worlds by a Universal Monarch as well as His own governing of the Buddhist Communities.

A Universal Monarch is a king who possesses a tremendous amount of merit. A Universal Monarch has authority over the Four Human Worlds: Jombu, Uttarakuru, Pubbavideha, and Aparagoyana. Every Universal Monarch possesses seven precious treasures: Precious Wheel, Precious Warlord, Precious Treasurer, Precious Lady, Precious Elephant, Precious Horse, and Precious Crystal Sphere.

The Lord Buddha says that a Universal Monarch upholds Dhamma. In other words, he is a Dhammic king. He worships, respects, and honors Dhamma. He regards Dhamma as his authority. He manages, keeps, and protects by Dhamma his wives, sons, daughters,

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<sup>1</sup> *Aṭṭhakathā-Catucakkha Sutta. Aṭṭhakathā-dīgha-nikāya Pāṭikavagga.* Bangkok: Mahamakut Buddhist University Press, vol. 15, p. 131 and *Aṭṭhakathā-Catucakkha Sutta. Aṭṭhakathā-Aṅguttaranikāya Tikanipāta* Bangkok: Mahamakut Buddhist University Press, vol. 34, p. 37

relatives, soldiers, Brahmins, householders, ascetics, monks, and animals under his dominion. Dhamma here means the Tenfold Wholesome Course of Action.

The Lord Buddha also upholds Dhamma. He is a Dhammic king... He worships, respects, and honors Dhamma... He regards Dhamma as His authority. He manages, keeps, and protects members of the Buddhist Communities telling them this you should do, this you should say, this you should think, this is the right way to earn your livelihood, this place you should visit, and these other things you should not do, say, or think, etc.<sup>2</sup>

Meritocracy is the heart of political science according to the Tipitaka. Meritocracy means regarding Dhamma as the authority. The same principles of meritocracy apply to both secular government and Dhammic government.

## 6.5 Meritocracy Is Not a System of Government

Meritocracy is not a system of government like democracy or communism; however, every existing government system can readily apply meritocracy to its system. Meritocracy upholds righteousness and as such makes it possible for the ruler and the people to live together in peace.

In the past and during the Lord Buddha's time, there were two main systems of government: rule by one individual and rule by a group of individuals. Rule by one individual means rule by a monarch. During the Lord Buddha's time, the kingdom of Magadha was ruled by King Bimbisara, the kingdom of Kosala was ruled by King Pasendikosala, and the kingdom of Vansa was ruled by King Udena. In the past, rule by one individual included rule by a Universal Monarch. During the Lord Buddha's time, the kingdom of Vajji was ruled by members of the Licchavi House, and the kingdom of Malla was ruled by the Malla royalties.

The Lord Buddha did not try to change existing systems of government but He taught such Dhammic principles as the Seven Conditions of Welfare that could be applied to the system of government where the rule by a group of individuals existed. Dhammic principles suitable to the rule by one individual include the Ten Virtues of a Monarch, the Five Virtues of a Universal Monarch, etc. However, the Seven Conditions of Welfare, the Ten Virtues of a Monarch, the Five Virtues of an Emperor, etc., can be applied to every system of government.

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<sup>2</sup> *Rāja Sutta. Suttantapiṭaka Aṅguttaranikāya Pañcakanipāta.* Bangkok: Mahamakut Buddhist University Press, vol. 36, no. 133, p. 276

Besides teaching the Dhammic principles applicable to government, the Lord Buddha also taught the rulers to attain the Dhamma. On one occasion, He went to teach King Bimbisara of the Magadha Kingdom. On that occasion, the king and 110,000 people attained the Fruit of Sotapanna. Having attained the Fruit of Sotapanna, King Bimbisara became a devout Buddhist, and he ruled his kingdom righteously.

In ruling the monastic community, which was a new entity at the time, our Lord Buddha used a government system similar to the one used in the secular world. That is, He ruled the monastic community righteously.

The Lord Buddha did not appoint anyone to take His place after His attainment of Complete Nibbana. He gave the monks in each area and in each temple the authority to self-govern by upholding the Dhamma-Vinaya. The Lord Buddha told the monks that the Dhamma-Vinaya would take His place after He was gone. In addition, the Lord Buddha told Bhikkus and Bhikkunis to strictly practice the Seven Conditions of Welfare as applied to the monastic community.

In governing the monastic community, the Lord Buddha had decreed strict rules for Bhikkus and Bhikkunis to follow. These disciplinary rules or Vinaya will be discussed in detail in the chapter dealing with jurisprudence according to the Tipitaka. The Lord Buddha did not interfere in anyway with the existing systems of government used by different kingdoms. Some kingdoms were still lacking in certain Dhammic principles, which played an important role in government.

For the monastic community, such Dhammic Principles as the Seven Conditions of Welfare were inadequate and detailed disciplinary rules needed to be decreed. The reason was people who entered the monkhood came from various backgrounds and improper conduct could easily occur, which could tarnish the reputation of Buddhism. Each of the disciplinary rules was decreed as a result of a particular misconduct. Therefore, the Vinaya or disciplinary rules can be compared to a mould that shapes every Bhikku and Bhikkuni so that as true monks, they can inspire faith in the people. The Vinaya also caused Bhikkus and Bhikkunis to live together in peace so that they could continue to perpetuate Buddhism and work for the Buddhist Cause.

## **6.6 Important Dhammic Principles in Government**

There are two kinds of Dhammic principles in government: Those having to do with the self-governing of the ruler and those having to do with the governing of the people. Dhammic principles in government can also be called “moral principles” because Dhammic principles in government have to do mostly with “morality”.

Dhammic principles having to do with the self-governing of the ruler are the Dhammic principles that each ruler must practice in order to uphold morality so that he can be a good role model for his subjects and inspire in them respect and loyalty. A monarch must practice the Ten Virtues of a Monarch or the Tenfold Wholesome Course of Action. A Universal Monarch must practice the Five Virtues of a Universal Monarch. The Seven Conditions of Welfare must be practiced by a group of rulers in order to create solidarity among the rulers.

Dhammic principles having to do with the governing of the people must be practiced by the individual ruler or a group of rulers in order to create peace, harmony, and prosperity for the people. These include the Four Principles of Service and Social Integration, the Four Causes of Partiality, the Tenfold Wholesome Course of Action, the Five Precepts, etc.

### **6.6.1 Dhammic Principles Having to Do with the Self-Governing of the Ruler**

The Lord Buddha teaches the ruler to follow His example by first learning to govern himself before taking on the responsibility of governing his subjects. Before attaining Self-Enlightenment, our Lord Buddha was a model of morality. He had abstained from every form of unwholesomeness performing only wholesome deeds. After attaining Self-Enlightenment, our Lord Buddha could readily govern the Buddhist Communities. Those who practiced according to the Lord Buddha’s Teachings to the highest level were able to attain Arahatsip. Having completed the work of self-governing, these Arahats were ready to help the Lord Buddha govern the four Buddhist Communities.

There are four important Dhammic principles in the self-governing of a monarch. These include the Ten Virtues of a Monarch, the Tenfold Wholesome Course of Action, the Five Virtues of a Universal Monarch, and the Seven Conditions of Welfare.

### **1. The Ten Virtues of a Monarch (Dasarajadhamma)**

This Dhammic Principle had been in existence long before the Lord Buddha's time as witnessed by its mention in many Jataka Stories such as Vessandara, Sumangala, Kummasapinda, Mahahansa, etc. The Ten Virtues of a Monarch are:

- (1) Alms-giving: It means the intention to give alms such as Vatthu-10 or the ten items, which include rice, water, etc.
- (2) Morality: It means observing the Five Precepts.
- (3) Self-sacrifice: It means being willing to make personal sacrifices for the happiness of the general public.
- (4) Honesty: It means being honest and sincere.
- (5) Gentleness: It means being a gentle person.
- (6) Effort: It means observing the Eight Precepts.
- (7) Non-anger: It means being loving and kind.
- (8) Non-violence: It means being compassionate.
- (9) Patience: It means being persevering and persistent.
- (10) Non-deviation from righteousness: It means conforming to moral values.

### **2. The Tenfold Wholesome Course of Action**

This Dhammic principle had been in existence long before the Lord Buddha's time. In the Cariyapitaka, our Lord Buddha tells us about a previous life where He was King Ekaraj. In that existence, the king pledged the Precepts, the Ten Wholesome Course of Action, and the Four Principles of Service and Social Integration.<sup>3</sup> The Tenfold Wholesome Course of Action includes:

- (1) No killing
- (2) No stealing
- (3) No sexual misconduct
- (4) No false speech
- (5) No divisive speech

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<sup>3</sup> *Paramatthadīpanī Aṭṭhakathā-khuddaka-nikāya Cariyāpiṭaka*. Bangkok: Mahamakut Buddhist University Press, vol. 74, no. 34, p. 535

- (6) No offensive speech
- (7) No nonsensical speech
- (8) No covetousness
- (9) No vindictiveness
- (10) Having Right View

### 3. The Five Virtues of a Universal Monarch

This Dhammic principle had existed long before the Lord Buddha's time. The first and fifth virtues are for the Universal Monarch's self-governing whereas the second, third, and fourth virtues are for the governing of his subjects.

- (1) The Universal Monarch practices Dhamma. He worships, respects, venerates, and honors Dhamma. Dhamma is his victory flag. Dhamma is supreme. Dhamma is his authority. Dhamma here means the Tenfold Wholesome Course of Action.
- (2) The Universal Monarch manages, keeps, and protects by Dhamma his wives, sons, daughters, relatives, soldiers, Brahmins, householders, ascetics, monks, deer and birds under his rule.
- (3) The Universal Monarch prevents unwholesome deeds from being committed.
- (4) The Universal Monarch gives to the needy.
- (5) The Universal Monarch keeps the company of the wise. He approaches righteous ascetics<sup>4</sup> and asks them such questions as "What is wholesome? What is unwholesome? What is harmful? What is harmless? What should he be involved with? What should he not be involved with? What deeds are not beneficial but lead to suffering everlasting? What deeds are beneficial and lead to happiness everlasting?" Once he has the answers, he practices accordingly. He abstains from unwholesomeness and performs only what is wholesome.

In regards to (2), the Commentary adds that the Universal Monarch must encourage his wives, sons, and daughters to practice morality. He gives them things like cloths, flowers, scented items, etc. He protects them from harm.

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<sup>4</sup> These are individuals who abstain from intoxicants and recklessness; they are patient and gentle; they undertake self-training; they keep their mind quiet and still.

The Universal Monarch treats in the same way but with some differences his soldiers, his retinue of attendants, the ascetics, the householders, etc.,. For example, he should increase the soldiers' pay and reward them in a timely manner. He should provide such precious gifts as noble steeds to the king of an independent country. He should provide a suitable means of transportation to the king of a vassal state. He should provide the ascetics with things like rice, water, cloths, etc.

The Universal Monarch ought to give to householders and the general public rice seeds, plough, gear, oxen, etc. For the ascetics who practice righteousness, he should worship them with the requisites. As for the birds and deer, he should provide a safe haven for them where they cannot be harmed or killed.<sup>5</sup>

#### **4. The Seven Conditions of Welfare (Aparihaniyadhamma-7)**

Aparihaniyadhamma-7 is the Dhammic principle that prevents decline and leads only to growth. They also create a sense of solidarity or team spirit. There are two kinds of Aparihaniyadhamma: one for householders and one for monks. They share some similarity and the differences arise out of the difference in the lifestyle of householders and monks. Here, only Aparihaniyadhamma-7 as applied to householders will be presented.

This Dhammic principle was given by our Lord Buddha to the Licchavi royalties, rulers of the Vajji Kingdom at the Sarandada Cetiya near Vesali City. Practicing this Dhammic principle allowed the Licchavi rulers to work well as a team.

- (1) Meet frequently to make sure that every member is kept up to date on things.
- (2) Begin the meeting together, end the meeting together, and carry out shared activities together.
- (3) Do not add new rules. Do not delete existing rules. Follow ancient Vajji practices.
- (4) Worship, respect, admire, and venerate people in senior positions and the elderly and have faith in their wise counsel. When one is respectful, the elderly will be loving and kind to him and give him counsel.
- (5) Do not molest and intimidate women and young girls; do not hold them against their will because it will cause the people to go against them.
- (6) Worship, respect, admire, and venerate all of the stupas inside and outside the city and do not reduce articles of worship in any of the stupas so that celestial beings will continue to help protect the stupas as well their kingdom.

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<sup>5</sup> *Aṅgikathā-Catucakkha Sutta. Aṅgikathā-dīgha-nikāya Pāṭikavagga.* Bangkok: Mahamakut Buddhist University Press, vol. 15, p. 132-133

(7) Take care of, protect, and watch over all the Arahats. Bear in mind what one should do so that more Arahats will visit the kingdom and those who are already there can live comfortably. Do these things so the Arahats can continue to be the merit-field of the Vajji people.

Ancient Vajji practices mean valuable traditions and customs concerning government which had been practiced in Vajji since ancient times. The Lord Buddha advised the Vajji rulers to keep these ancient practices without adding new ones. For example, they were not to add new taxes or new duty. They were not to add new forms of punishment. They were not to punish a suspect without holding a thorough investigation.<sup>6</sup> Etc.

Criminal investigation according to ancient Vajji practices was the work of different divisions where each division completed its work and transferred the completed work to another division.

When an official brought a suspect to the Vajji rulers, the Vajji rulers would send the case to the minister in charge of criminal investigation. After the investigation had been carried out, if the suspect was not found guilty, he would be released. But if he was found guilty, this minister would transfer the case to the minister in charge of hearing and deciding the case. If this minister decided that the suspect was not guilty, the suspect would be released. If he was found guilty, the case would be transferred to another minister in charge of jury duty.

If the juries found the suspect not guilty, the suspect would be released. If he was found guilty, the case would be transferred to the eight families of ministers, so on and so forth all the way to the minister of state, the viceroy, and the king. If the king found the suspect not guilty, the suspect would be released but if he was found guilty, the king would have an official read the text containing traditional laws.

In this law book, it said whoever committed such and such deed would be punished by such and such means. The king would compare the crime with what was written in the law book and pronounce a judgment as befitted the crime. In following such ancient Vajji practices, no one could find faults with the rulers, and the rulers would meet only with prosperity.<sup>7</sup> The Vajji rulers should also practice the Ten Virtues of a Monarch as well.

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<sup>6</sup> *Sumamgalavilāsini Atthakathā-dīgha-nikāya Mahāvagga*. Bangkok: Mahamakut Buddhist University Press, vol. 13, p. 340

<sup>7</sup> *Ibid.*, p. 341-342

Aparihaniyadhamma is not confined to a group of rulers but it can be applied to absolute monarchs as well. Such a monarch should still meet frequently with his ministers and officials. Every person involved must perform different activities together. Etc.

## 6.6.2 Dhammic Principles Having to Do with State Governance

There are two kinds of such Dhammic principles. The first kind of Dhammic principles has to do with keeping the goodwill of the people, creating harmony, preventing divisiveness. These include the Four Principles of Service and Social Integration, the Four Causes of Partiality, etc. The second kind of Dhammic principles has to do with rules and regulations. These include the Tenfold Wholesome Course of Action, the Five Precepts, etc.

### 1. The Four Principles of Service and Social Integration (Sangahavatthu-4)

These Dhammic principles foster goodwill. The Lord Buddha told us that during the existence as King Ekaraj, He observed the Precepts immaculately. He ruled over a vast kingdom. He practiced the Tenfold Wholesome Course of Action in earnest. He helped the masses by practicing the Four Principles of Service and Social Integration.<sup>8</sup> These include alms-giving (Dana), endearing speech (Piyavaca), altruism (Atthacariya), and appropriate conduct (Samanattata).

- (1) **Alms-giving (Dana)** means the practice of generosity. It is very important for a ruler to give because a giver endears himself to other people. When a ruler gives regularly to the people, he is loved by them and that makes it easier for him to rule them.
- (2) **Endearing speech (Piyavaca)** is lovely, attractive, and conducive to harmony. Endearing speech is not annoying or irritating. Endearing speech is easy on the ear. Endearing speech allows the ruler to convince the people to live together in peace and harmony.
- (3) **Altruism (Atthacariya)** means doing things for other people's benefit. For a ruler, it means doing things that benefit his subjects. He does not care only for his own happiness but he does whatever necessary to help his subjects live happily.
- (4) **Appropriate conduct (Samanattata)** means that a ruler knows to behave appropriately toward the people of every social class and under every circumstance. He treats his subjects the way a father treats his children. He is accessible to his subjects. He shows them love and kindness and he looks after their welfare.

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<sup>8</sup> *Paramatthadīpanī Aṭṭhakathā-khuddaka-nikāya Cariyāpiṭaka*. Bangkok: Mahamakut Buddhist University Press, vol. 74, no. 34, p. 535

## 2. The Four Causes of Partiality (Agati-4)

Every ruler under every system of government must abstain from partiality. Otherwise, intense disharmony will occur and it will be impossible for the ruler to contain the situation. There are four causes of partiality.

- (1) Partiality caused by love or desire (Chandagati)
- (2) Partiality caused by hatred or enmity (Dosagati)
- (3) Partiality caused by delusion or stupidity (Mohagati)
- (4) Partiality caused by fear (Bhayagati)

The Lord Buddha teaches that whoever practices partiality as a result of love or desire, hatred or enmity, delusion or stupidity, and fear, his reputation will be like the waning moon. On the contrary, whoever does not practice partiality, his reputation will remain intact like the waxing moon.<sup>9</sup> There are many Jataka Stories that teach us about the disastrous results of partiality, here one example will be given. This is the story about “Candakumara”

Once upon a time, there was a city called “Pupaphavadi”. It was ruled by King Ekaraj. One of his sons was called “Candakumara” and he held the position of viceroy. In the city there was an advisor to the king who was also given the responsibility of hearing and judging cases of dispute. His name was “Kandahala”. Unfortunately he was a judge that took bribes.

On one occasion, a man had lost his case as a result of the judge’s partiality. He subsequently went to see “Candakumara” and told him the entire story. “Candakumara” returned to the courthouse with the man and reheard the case himself. As a result, justice was delivered and the man won his case. The masses rejoiced and sang the praises of Candakumara. After this incident, King Ekaraj told Candakumara to hear and judge all future cases. As a result, Kandahala not only lost his position as a judge but the gain derived from bribes as well. And he was determined to avenge himself on Candakumara.

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<sup>9</sup> *Paṭham-agati Sutta and Dutīya-agati Sutta. Aṅguttaranikāya Catukakanipāta.* Bangkok: Mahachulalongkornrajavidyalaya University Press, vol. 21, no. 17-18, p. 29-30

One night, the king saw the celestial realm of Tavatimsa in his dream. He saw a host of celestial women singing, dancing, and playing music. It was such a wonderful place. Upon awakening, the king was seized with the mad desire to go to the Tavatimsa Realm. He had Kandahala fetched so that he could ask him about how to get to the Tavatimsa Realm.

Kandahala felt the time had come to avenge himself on Candakumara so he told the king that a person could be reborn in the Tavatimsa Realm only after he had offered up exceptional sacrifices by killing those that should not be killed.

Your Majesty needs to make a sacrificial offering of four consorts, four princes, for chosen individuals, four auspicious oxen, and four auspicious horses.

The foolish king was dominated by Mohagati as well as the mad desire to go to the Tavatimsa Realm. And he immediately agreed to have the people and animals recommended by the evil Brahmin fetched. He refused to listen to Candakumara and the ministers' reasoning. He was determined to carry out the sacrificial offering.

This news spread all over the city of Pupabhavadi. The people were certain the evil scheme had been thought up by the vindictive Brahmin Kandahala. They converged upon the evil Brahmin and killed him. As they turned toward the king, Candakumara went to put his arms around his father.

The people said that they would let the king live but they would not allow him to be king any longer. They took the king to the place where the Untouchables lived and crowned Candakumara king. Candakumara ruled the kingdom righteously and he continued to prosper for the rest of his life.

### **3. The Ten Wholesome Course of Action (Kusalakammappala-10)**

This Dhammic principle can be applied to the self-governing of a king and a Universal Monarch and to the governing of the people as well. It was written in the Kutadanta Sutta and the Raja Sutta that some Universal Monarchs ruled their subjects according to this Dhammic principle.

### **4. The Five Precepts (Sila-5)**

The word "Sila" means "the norm"; that is, the human norm. The human norm is defined by Sila-5 or the observation of the Five Precepts. Sila-5 had existed long before the Lord Buddha's time especially during the time of a Universal Monarch where he taught all of his subjects to observe the Five Precepts.

## 6.7 The Important Role of Economy in State Governance

Dhammic principles are the heart of state governance but state governance cannot proceed as planned if the people experience scarcity in their lives. Economy is so important to state governance that nowadays the two sciences of economy and state governance are combined together and become “political economy”.

Societal problems are caused mainly by defilements as stated in the Agganna Sutta but they are also caused by economic problems. A poor person must struggle to survive any way he can. If he cannot do it through right livelihood, he may resort to stealing or other immoral means. When the stomach growls, one’s first concern is to find something to eat. When people go hungry, they can hardly pay attention to defilements, left alone their elimination.

Although the Lord Buddha teaches us to give up money, organs, and life in order to keep our morality intact, there are in reality very few people who can do this. Therefore, the ruler must make sure that his subjects do not go hungry if he wants them to earnestly uphold morality. Our Lord Buddha understood this and always asked the monks that spent the Rains-Retreat in other temples if they were managing alright and if they had had any difficulty going on their alms-round.<sup>10</sup>

On one occasion, our Lord Buddha went to teach a poor man in the town of Alavi. The man had been looking for his lost ox all day long. As soon as he found it, he hurried to go and listen to the Lord Buddha’s Dhamma lecture despite the fact that he had not eaten all day. Our Lord Buddha knew beforehand that this man would be able to attain the Dhamma. He also knew that the man was famished. Therefore, our Lord Buddha had someone bring the man food and waited until he had his fill before He gave the man a Dhamma lecture. As a result, the man attained the Fruit of Sotapanna after having heard the Lord Buddha’s Dhamma lecture.<sup>11</sup>

These examples show how important economy is in people’s lives, and it is up to the ruler to manage the economy in such a way that his subjects can thrive economically. However, economy must go hand-in-hand with morality; otherwise, it will be difficult to maintain peace in the country. As mentioned earlier, people are forced to commit misdeeds as a result of defilements as well as poverty.

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<sup>10</sup> *Upakkilesa Sutta. Suttantapiṭaka Majjhimanikāya Uparipaṇṇāsa*. Bangkok: Mahachulalongkornrajavidyalaya University Press, vol. 14, no. 238, p. 280

<sup>11</sup> *Dhammapadaṭṭhakāthā Aṭṭhakathā-khuddaka-nikāya Gāthā-Dhammapada*. Bangkok: Mahamakut Buddhist University Press, vol. 42, p. 373-376

The Most Venerable Phrathepyanmahamuni, the Abbot of Wat Phra Dhammakaya says that in the development of any country, economy and morality must go hand-in-hand. Economy is like the roots, leaves, bark, and sapwood whereas morality is like the core of a tree. A good economy must allow people to practice morality easily, for it is the practice of morality that keeps defilements under control.

## **6.8 King Mahavijitaraj's Governing Style**

King Mahavijitaraj's rule was an example of what is today called political economy. He began by developing the economy to the point where his subjects could enjoy a good standard of living. Next, he instilled in his subjects the importance of morality and the practice of morality in their daily life.

It was written in the Kutadanta Sutta that at one point there was a Brahmin village headman by the name of "Kutadanta". He was in charge of "Khanumat Village". He wanted to kill animals and offer them up as a sacrificial offering. But he had several questions regarding the sacrificial rites and he went to ask the Lord Buddha about the correct way to make a sacrificial offering.

To answer the Brahmin's question, the Lord Buddha told him the story about King Mahavijitaraj. One day the king thought to himself how he had been so well blessed with all kinds of material wealth, how he had won all of his battles, and how he was the sovereign of such a vast kingdom. He felt that he needed to make a sacrificial offering in order to ensure that his life would continue to be well blessed. Therefore, he called a meeting of his advisors and asked them about how to make a special sacrificial offering.

In that existence, our Lord Buddha was reborn as one of the king's advisors. He said to the king that the border towns were still plagued by thieves and criminals and the king ought to quell these lawless men before making a special sacrificial offering. The Bodhisatta advisor also said that these lawless men could not be executed, imprisoned, fined, vilified or banished from the kingdom because there would always be some left to make trouble for the king and his subjects.

## **The Root Cause of Theft is Poor Economy**

The Bodhisatta advisor proceeded to tell the king that the best way to solve the crime problem was to solve the poverty problem. He advised the king to help the three groups of people that had worked hard to earn a living as follows.

- (1) To a hard-working farmer, the king should let them grow more rice and keep more rice on certain occasions;
- (2) To a hard-working merchant, the king should give him additional funds for investment on certain occasions;
- (3) To a hard-working public servant, the king should give him a daily allowance and a monthly pay on certain occasions.

The Bodhisatta advisor told the king that if he could do these things, his subjects would be better motivated to do their work. They would not cause troubles for his kingdom. Moreover, the material wealth received from taxes would increase. The kingdom would be peaceful. There would be no crimes. People would not have to lock their doors. When King Mahavijitaraj did as the Bodhisatta advised, things did turn out exactly as the Bodhisatta said.

## **Obtaining the Cooperation of the Nobility**

After peace had been restored and the economy was good, King Mahavijitaraj asked the Bodhisatta advisor once again about how to make a special sacrificial offering. The Bodhisatta told the king to ask for cooperation from the four groups of nobility, since these individuals played an important role in government.

- (1) Kings of the vassal states
- (2) Senior court officials
- (3) Wealthy Brahmins
- (4) Wealthy merchants

The Bodhisatta advisor told the king to call a meeting of these individuals who came from the city and the countryside and ask them to cooperate with him in making a special sacrificial offering. These four groups of individuals agreed with the king that it was time to make a special sacrificial offering.

### **Attributes of a Ruler**

In addition, the Bodhisatta advisor cited King Mahavijitaraj's eight attributes as being the attributes of a ruler.

- (1) A ruler is high-born.
- (2) He possesses good looks in that he has the form and complexion as glorious as a Brahma being.
- (3) He possesses a huge amount of material wealth.
- (4) His four armed forces are strong and disciplined.
- (5) He practices generosity. He is like a drinking water well to the ascetics, monks, orphans, travelers, itinerants, and the poor.
- (6) He is highly educated.
- (7) He has thorough knowledge of every subject he has studied.
- (8) He is an individual of penetrating intelligence, many talents and abilities. He contemplates past, present, and future events.

### **Attributes of an Advisor to the Ruler**

The Bodhisatta advisor cited his own four attributes as being important attributes of an advisor to the ruler.

- (1) An advisor is high-born.
- (2) He is scholarly. He can memorize a great number of incantations. He is learnt in all the Brahmin scriptures which include Mahapurisalaksana.
- (3) He upholds morality.
- (4) He is a sage with penetrating intelligence and wisdom.

### **How to Make a Sacrificial Offering**

The Bodhisatta advisor told the king that there were three ways to make a sacrificial offering. These include the practices that keep the mind bright, clear, and devoid of anxieties and worries as a result of miserliness. Here, to make a sacrificial offering means to give alms.

- (1) May the king never worry that his material wealth will decrease when he is practicing generosity.
- (2) May the king never worry that his material wealth is decreasing when he is practicing generosity.

- (3) May the king never worry that his material wealth has decreased when he is practicing generosity.

### **A Good Person is Characterized by the Wholesome Course of Action**

The Bodhisatta advisor told the king that good and evil people would come to his almonry. Evil people would reap the ill consequences of their misdeeds. The king should give alms to good people only. And he should give with a bright and clear mind. A good person is a person who practices the Tenfold Wholesome Course of Action.

### **Practicing Generosity by Abstaining from Killing**

The sacrificial offering made during the reign of King Mahavijitaraj was different from the ones made by the Brahmins in other periods. There was no killing of oxen, goats, sheep, chickens, pigs, etc. There was no need to cut down trees. There was only the giving of such items as clarified butter, oil, cheese, yogurt, honey, and cane juice. Individuals belonging to lower social classes such as slaves, servants, and laborers were not threatened with punishments. Their faces were not stained with tears. They did not have to weep while doing their work. They could choose their own work.

### **Nobility Contributed to the King's Almonries**

While King Mahavijitaraj was practicing generosity by giving to the people, the kings of the vassal states, senior royal officials, wealthy Brahmins and wealthy merchants all over the kingdom came to see the king and bring him a large sum of money. The king told them he was already receiving so much money from taxes, and returned the money to them. Moreover, he told them to take what they wanted out of his treasury.

These individuals did not want the money returned to them so they accompanied the king as he went around giving alms to the people because they wanted to do their share of giving too. The kings of the vassal states went with the king to the almonry in the east. The senior royal officials went with the king to the almonry in the south. The wealthy Brahmins went with the king to the almonry in the west. And the wealthy merchants went with the king to the almonry in the north.

King Mahavijitaraj had employed these ingenious methods in solving societal and state problems, the kingdom continued to increase in prosperity. His subjects were better motivated to do their work and they did not exploit each other. Their increased productivity increased the king's material wealth tremendously. People lived together in peace. The kingdom was a safe haven for everybody. And doors no longer needed to be locked.

## **6.9 An Analysis of King Mahavijitaraj's Governing Style**

This analysis is taken from the book "Buddhist Political Science" by Phrabhavanaviriyakhun, the Vice-Abbot of Wat Phra Dhammakaya with certain parts added to it to suit this course book. The first point to be analyzed is the original form of sacrificial offering.

### **6.9.1 The Original Form of Sacrificial Offering**

Thousands of years before the Lord Buddha's time, each kingdom was ruled by a king who practiced the Four Principles of Service and Social Integration. In those days, the practice was called "Yanna-5".

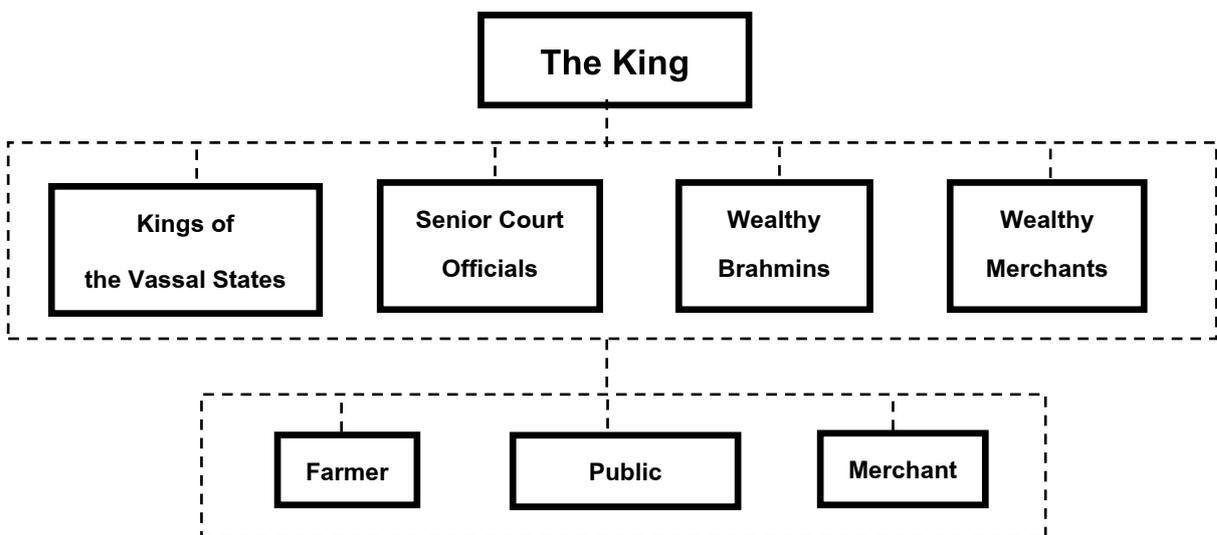
- (1) **Sassametha:** It means knowing clever ways to take care of crops by levying a 10% paddy tax depending on the yield and using the collected tax to help the farmers.
- (2) **Purisametha:** It means knowing how to take care of public servants, knowing how to promote those who are good and talented by giving them a gift of money every six months.
- (3) **Sammapasa:** It means helping the people by promoting different occupations and lending out money interest-free for 3 years.
- (4) **Vajapayya:** It means visiting the people and offering them good advice.
- (5) **Niraggala:** It means keeping the kingdom safe, peaceful, and devoid of criminals as a result of the first four parts of Yanna-5.

Several centuries before the Lord Buddha's time, some Brahmins and some groups of Brahmins did not practice according to what they had learnt. They made sacrificial offerings in order to eliminate enemies of state as well as for personal gain. Yanna-5 had been perverted and became:

- (1) Sassametha: Making a sacrificial offering by killing a horse
- (2) Purisametha: Making a sacrificial offering by killing a person
- (3) Sammapasa: Casting a loop into the air, wherever it falls is the place where the sacrificial rite will take place.
- (4) Vajapayya: Drinking alcohol to numb the mind for the sacrificial rite.
- (5) Niraggala: Killing every sacrificial animal and every sacrificial human being.

Making a sacrificial offering by killing living beings had become widely practiced all throughout India until the Lord Buddha happened. He put right the people's misconception about sacrificial offerings and told the rulers to practice instead the Four Principles of Service and Social Integration as described in the Kutadanta Sutta.

### 6.9.2 The Organization Chart of State Governance



According to the Kutadanta Sutta, state governance divided people into two levels under the king. The low level consisted of 3 groups. The high level consisted of 4 groups.

#### The Three Groups at the Low Level

These were the majority of citizens. Nowadays, they are called people at the grass-roots level. These include:

- (1) Farmers
- (2) Merchants and small business owners
- (3) Public servants

With the industrial revolution, there is today an additional group of people: manual laborers. But these can be placed group (1).

### **The Four Groups at the High Level**

The number of people in these groups was few compared to the low level groups but they exerted a great influence on state governance.

- (1) Kings of the vassal states: In today's term, these include national level politicians such as senators, members of the House of Representatives, etc. They make policies and decisions that have a direct impact on state governance.
- (2) Senior court officials: In today's term, these include senior government officials such as chief of staff, permanent undersecretary of a ministry, director general of a government department, governor of a province, supreme commander of all the armed forces, etc. It is these people's job to implement relevant policies.
- (3) Wealthy Brahmins: In today's term these include leading think tanks, major academicians, mass media, etc. These institutions of ideas represent the masses and help balance the power of government.
- (4) Wealthy Merchants: In today's term these include owners of national level businesses, international traders, major employers, etc.

### **6.9.3 Addressing the Root Cause of Crime through Economy**

If one were to ask why certain groups of people in the countryside during the reign of King Mahavijitaraj had to steal or rob. There might be different answers to this question. But according to the humanities as explained by the Tipitaka, there are at least two reasons why one becomes a thief or a robber. The first reason is greed, and the second reason is abject poverty.

In the case of King Mahavijitaraj's kingdom, the cause is abject poverty. We know this because once the king followed the advice of the Bodhisatta advisor by improving the economy incidents of thievery and robbery were eliminated. It could also be surmised that during the period where the king had been involved in the battles to expand his territory, the prolonged warfare could have very easily caused a great economic depression in the kingdom. After WWI (1929 C.E. or 2472 B.E.), a great economic depression spread all throughout North America, Europe and other countries.<sup>12</sup>

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<sup>12</sup> Wikipedia (2551): Great Depression (online)

Using other methods to address the problems of thievery and robbery such as executing thieves or robbers, imprisoning them, etc., might have been successful temporarily but soon enough the problems would reappear. To address the root cause of the problems is the only way that the problems can be eliminated. It is like solving the weed problem by cutting weeds, soon enough they will regrow. To eliminate the problem, the weeds must be uprooted.

#### **6.9.4 Solving Economic Problems by Helping Hard-Working People**

Our Bodhisatta solved the economic problems by helping the three groups of hard-working people at the low level: the farmers, the merchants, and the public servants. Our Bodhisatta had to have had a good method for selecting good and hard-working people.

Resources spent on helping hard-working people eventually caused revenue to increase. This caused the economy to grow and the amount of taxes to rise. The increase in state income allowed the state to further help other hard-working citizens. The state recognized and rewarded hard-working people. This motivated them to continue being hard-working. At the same time, lazy people might want to change their way knowing that if they became hard-working, they too would be helped. Even thieves and robbers might choose to earn an honest living instead.

On the contrary, if the king chose not to be selective and helped everyone, hard-working and lazy people alike, disaster would result because the kingdom could not possibly have sufficient funds to help everyone. State treasury would be depleted. Moreover, hard-working people would see no real advantages in being hard-working. Lazy people would become ever lazier. In the end, the entire kingdom would suffer.

#### **6.9.5 Helping Those Who Deserve to Be Helped on Certain Occasions**

Our Bodhisatta advised the king to give more seeds to the farmers so that they could increase their yield and had more rice to eat. He also advised the king to provide more funds for investment to the merchants as well as giving an allowance to public servants from time to time. The key here is to give on the appropriate occasion. In Pali, this is called “Kalannu”. It means right timing. Kalannu is one of the seven virtues of a virtuous man or “Sappurisadham”. Everything in the world has its timing. If we can do things at the right time, we have a better chance at meeting with success.

Right timing also applied to helping hard-working people. For example, when rice and other grains are expensive, it is exactly the right time for the government to promote rice farming and the farming of other grains.

### **6.9.6 How to Build a Team of Government Administrators**

The Bodhisatta advised King Mahavijitaraj to ask for the cooperation of the four groups of people at the high level in regards to the special sacrificial offering. This was a clever way to assemble a team of government administrators because members of these four groups might not be many but they had a tremendous influence on politics. They were intelligent and wealthy. Moreover, they knew a lot of people.

In asking for their cooperation, the king showed them that he thought highly of them. They felt that they had the king's confidence and trust. This pleased them enormously because it was not something they had had before. As a result, they were more than happy to work for the king and they did it to the best of their ability.

It is important that when we want to give someone something, it should be what they do not have and at the time when they need it most. To poor people, they should be given things accordingly. For example, to a poor farmer, unhusked rice should be given. To a poor merchant, funds for investment should be given. To a public servant, an allowance or a bonus should be given. However, wealthy individuals do not lack money but they want acceptance and trust from the ruler of the country. They want honor and fame because these things will help them with their work or business. It is for this reason that a ruler should treat these people with respect.

Members of these four groups not only agreed with the king's special sacrificial offering but they also brought him a large sum of money. The king did not accept it, however, because he had a huge income from taxes already. Moreover, the king gave some of his money to these people. As a result, these people followed the king's example by giving the money intended for the king and the money received from the king to the poor and the needy. And they continued to give. This allowed many poor people to have the chance to better their situation, hence, lessening the gap between the rich and the poor.

The fact that the king did not accept the money offered to him by members of the privileged class but gave them money instead was indeed a clever way to indirectly encourage these people to give to the poor and the needy alongside him. The practice of generosity lessens miserliness and helps cultivate magnanimity. Moreover, a giver will be less likely to be greedy and less likely to obtain additional wealth by unethical means. This is a problem that plagues members of the privileged class. They do not obtain additional wealth because they do not have enough money but because they always want more of it. Therefore, the practice of generosity benefits society as a whole.

One point is noteworthy. King Mahavijitaraj did not give alms to the general public until he had already done things to help the three groups of hard-working people at the low level. Through his help, the economy recovered. People lived well and crimes were no longer a problem. The king did this because he needed first to help the people who were the hardest hit by the economy. It is like when treating patients, the ones with the most serious condition must receive medical attention first.

#### **6.9.7 Attributes of a Ruler and His Advisors**

As described earlier, King Mahavijitaraj possessed the eight attributes of a ruler and the advisor possessed the four attributes of an advisor to the ruler. These attributes are very necessary because state governance requires the cooperation of every citizen. The king must be able to unite the hearts and minds of his subjects. He must be well accepted and respected. He must not be lacking in ways that may cause his subjects especially members of the privileged class to doubt his authority. An advisor to the king must possess the attributes that help the king to plan the best way to run the country, and to ensure that every big project can be successfully executed.

#### **6.9.8 Spiritual Development of a Ruler**

There are three aspects to the practice of generosity as described earlier. During alms-giving, the king keeps his mind bright and clear. He does not feel that his treasury is being depleted. Once he makes the decision to give alms, he does so willingly and without regrets. Practicing generosity is a clever way for a ruler to cultivate magnanimity and loving-kindness. Such a ruler learns to genuinely care about the welfare of his subjects.

The people that receive alms from the ruler can see that he gives with a heart and face filled with joy. The ruler's kindness touches the people deeply and all of them want to help the ruler develop their country.

On the contrary, if while the ruler is giving alms he feels that his wealth is being depleted, his feeling will show in his countenance. The people will know that he gives of his wealth unwillingly and it will be hard for the people to cooperate with him.

A selfish person that occupies a position of power does not genuinely care about the welfare of the people and the people suffer as a result. In the case of a magnanimous person in a junior position the people are happy but he suffers. In the case of a selfish person in a junior position, every part of the country suffers. But a magnanimous person in a position of power will cause the country to prosper.

### **6.9.9 Spiritual Development of the People**

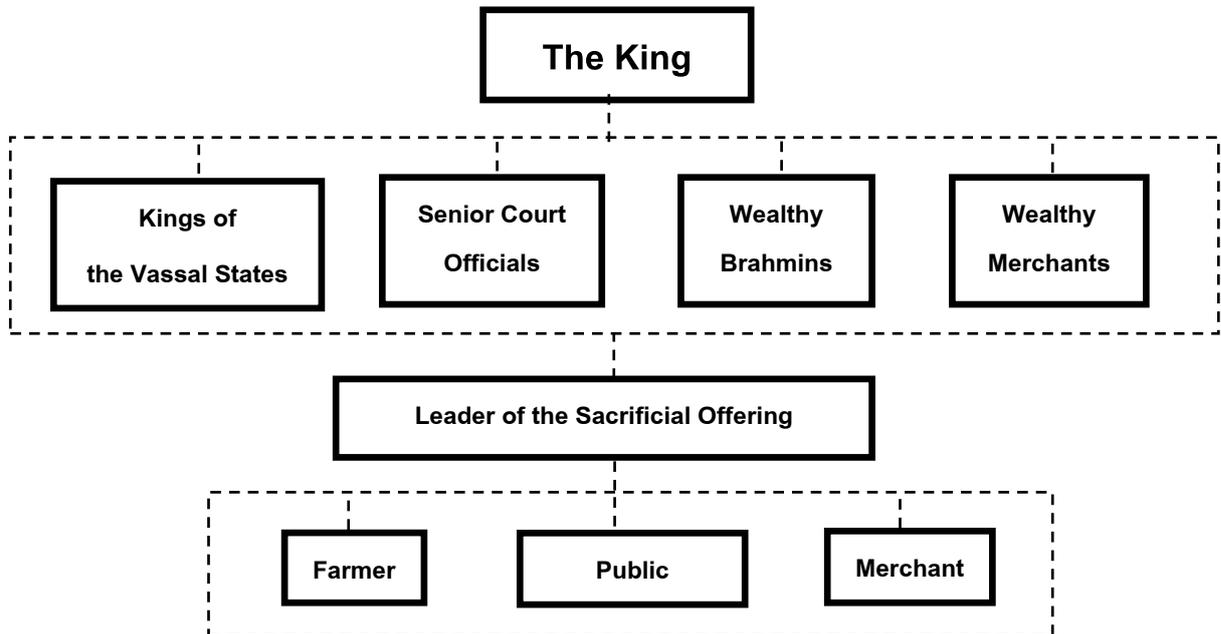
King Mahavijitaraj's advisor told him that in giving alms, the recipients could be good or evil and it might be difficult to tell them apart. The king was to set his mind on giving only to good people. However, if someone evil showed up, the king was to practice magnanimity by thinking that he was giving the person an opportunity to become a good person in the future.

Besides being hard-working, a good person had to observe the Precepts or practice the Tenfold Wholesome Course of Action, which was the basis of a good person in those days. The Tenfold Wholesome Course of Action was also used to screen people. It was the standard for personal development, and personal development was instrumental to economic development and other areas of development in the country. The success of every project in the country depended on the quality of its people.

### **6.9.10 Economic Development Must Go Hand-in-Hand with Spiritual Development**

The original form of sacrificial offering prescribed by Brahmanism required the killing of animals like oxen, goats, sheep, chickens, pigs, etc. But the new method of making a sacrificial offering as prescribed by King Mahavijita's advisor called for clarified butter, oil, cheese, yogurt, honey, and cane juice. These items were readily available for the people. Most importantly, this new method of making a sacrificial offering did not require the killing of animals but it promoted agriculture instead. This provided more jobs in agriculture for the people. This is one example of how economic development goes hand-in-hand with spiritual development.

### 6.9.11 King Mahavijitaraj's Sacrificial Offering Chart



This chart shows how the king presided over the sacrificial offering ceremony. In other words, he personally gave alms to the people and spent time in their midst. This was how he captured the hearts of the people. His action inspired members of the four elite groups to emulate him. This method of government inspires the elites and the general public to work together for the greater good of the country.

According to the Cakkavatti Sutta mentioned in chapter 5, societal problems have two causes. One, the ruler is unethical; and two, the economy is poor. Scarcity causes thievery, robbery, and other immoral acts. Therefore, to solve societal problems, the ruler must be virtuous and must work to ensure a good economy for his country.

In the case of King Mahavijitaraj, both he and his advisor were virtuous. The king supported ascetics and monks and he gave to the people. He was highly intelligent and talented. The king's advisor understood that the root cause of crimes was scarcity. Therefore, he advised the king to fix the economy by first helping the three groups of hard-working people. Once the economy grew, many societal problems were solved, and the kingdom became prosperous.

### 6.9.12 Summary of King Mahavijitaraj's Rule

Following the advice of the Bodhisatta advisor, King Mahavijitaraj began to solve the kingdom's problems in three ways as follows.

1. He divided the different groups of people into two levels:
  - 1.1) At the top level were the four elite groups
  - 1.2) At the bottom level were the three groups of commoners
2. He began solving scarcity and crime problems by helping the three groups of commoners. He addressed economic development and the people's spiritual development simultaneously.
  - 2.1) He improved the economy by helping the three groups of commoners who were hard-working. He provided for them what they needed at the right time.
  - 2.2) For the people's spiritual development, he encouraged them to practice the Tenfold Wholesome Course of Action.

To develop a country in a lasting way, economic development must always go hand-in-hand with the people's spiritual development. When economic development alone is emphasized, morality suffers and the result may be unbridled greed. What follow are crimes, corruption, etc. When morality alone is emphasized, economy suffers. Scarcity causes crimes.
3. Ruling a country and solving the country's problems is a very big job and the ruler cannot do it alone. He needs to build and develop an administrative team by recruiting the help of the four elite groups.
  - 3.1) In team-building, respect is key. The ruler shows his respect by inviting members of the four elite groups to meet with him, getting their approval, and asking for their help.
  - 3.2) In team-development, the ruler must be a good role model for his team members in regards to morality, generosity, etc., so that they can follow his fine example. When the ruler and his team are good role models for the general public, everyone stands to gain and the country will prosper.

## **6.10 A Comparison between Secular Political Science and Dhammic Political Science**

Here, certain points will be made between meritocracy i.e. the rule of the Vajji Kingdom by a group of rulers and today's democracy.

Democracy shares certain characteristics with the rule of the Vajji Kingdom. However, democracy allows qualified citizens to take part in the ruling of the country through the process of election. But for the kingdom of Vajji, the rulers had to be royalties. The Constitution serves as Democracy's highest rule of law whereas Dhammic principles such as Aparihaniyadham served as the Vajji rulers' highest rule of law.

In democracy, the government exercises its power through three different branches: the executive, the legislative, and the judicial. According to the Tipitaka Commentary, there was a clear division between the executive branch and the judicial branch in the kingdom of Vajji. The rulers of Vajji were in charge of the executive branch and they appointed one of them as king. The judicial branch was exercised by the ministers. It is not clear if there was a separate legislative branch in Vajji but the Lord Buddha did tell the rulers not to add new rules, not to delete existing ones, but to practice according to what had been traditionally practiced in Vajji since ancient times.

There are two ways to interpret the Lord Buddha's Saying. One, the rulers of Vajji exercised their power through both the Executive Branch and the Legislative Branch. Two, the rulers of Vajji were divided into two groups. One group exercised its power through the Executive Branch and another group exercised its power through the Legislative Branch. It cannot be ascertained for certain which of the two scenarios took place. However, legislative power as defined by Aparihaniyadham and the traditional practices of Vajji was stationary. Therefore, movement in government depended on the Executive Branch and the Judicial Branch.

Interestingly, the Judicial Branch of Vajji was divided into levels similar to the way the Judicial Branch is divided in modern times into the Court of First Instance or Civil Court, the Court of Appeals, and the Supreme Court. There were also other courts. There were seven divisions in Vajji's Judicial Branch: The minister in charge of investigation, the minister in charge of hearing the case, the minister in charge of the juries, the eight families of ministers, the minister of state, the viceroy, and the king.

Some cases were terminated by the minister of investigation if the suspect was not found guilty. But if he was found guilty, the case proceeded through the different levels of

the judicial system and all the way to the king. If the king found the suspect guilty, the text containing traditional law would be consulted. The text prescribed a particular punishment in accordance with a particular crime.

Interestingly, the king was the leader of the Executive Branch and yet he was also responsible for the Judicial Branch if the case did not end at the Court of First Instance. This practice is different from modern day democracy in that the leader of the Executive Branch is not at all involved in the hearing of cases.

The biggest difference between Vajji and democracy is the fact that Vajji held such Dhammic principles as Aparihaniyadham as its highest authority whereas democracy held the Constitution as its highest authority.

### **The Weak Point of Democracy and How to Solve It**

If the ruler is a good and ethical person, dictatorship in the form of Absolute Monarchy or Socialism can cause the fastest change in society. These forms of government incur a high risk because people still possess defilements, as they say, “Absolute power corrupts absolutely”. When that happens, society suffers.

Democracy is a system of government whose power comes from the people and has the least number of flaws. One weak point in this system is that the masses are often persuaded by the influential power of sleek and clever public relations, money, or other kinds of influence that cause them to elect the wrong people to represent them. Installing an incompetent person or an incompetent group of people in government can cause much damage as a result of corruption, the misuse of government power, leading the country down the wrong path, economic downturn, etc.

To solve this problem, the masses must be educated in the ways of the media, and the games politicians play so that they can make wise choices based on correct information rather than emotion. It is also important for every citizen to uphold righteousness and regard Dhammic principles as the new social values. This way, politicians will have to behave righteously or they will not be accepted by the people. In other words, meritocracy must be applied to democracy.

#### **ASSIGNMENTS**

After you have finished studying this chapter, complete the test and the exercises provided in the workbook before proceeding to the next chapter.

# **Chapter 7**

## **Jurisprudence**

### **According to the Tipitaka**

## Chapter 7

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### Jurisprudence According to the Tipitaka

- 7.1 An Overview of Jurisprudence According to the Tipitaka
- 7.2 The Origin of Law According to the Tipitaka
- 7.3 The Vinaya Is the Law According to the Tipitaka
- 7.4 Components of a Disciplinary Rule
- 7.5 Steps Involved in Decreeing a Disciplinary Rule
- 7.6 The Number and Categories of a monk's Precepts
- 7.7 Some Examples of the Disciplinary Rules
- 7.8 Disciplinary Rules: The Lord Buddha's Decrees
- 7.9 The Patimokkha Chanting
- 7.10 Cases of Dispute (Adhikarana)
- 7.11 Adhikaranasamtha : Case Settlements
- 7.12 Vinayadhara : Experts in the Vinaya

## Concepts

1. Jurisprudence according to the Tipitaka refers to the Vinaya or the code of monastic discipline. The Vinaya includes the monk's 227 disciplinary rules or Sikkhapada-227.
2. Each disciplinary rule is precisely and concisely stated in order to make it easy for a monk to understand so that he can practice it correctly. Every 15 days, the monks meet to review the Vinaya so that they can commit it to memory. This is contrary to the secular world where the government does not make sure that its citizens have a thorough knowledge of its laws.
3. Every disciplinary rule as prescribed in the Vinaya was decreed by the Lord Buddha. It is for this reason that the Vinaya is perfect and sacred. Law in the secular world is drafted and proposed by ordinary individuals who still possess defilements. Therefore, it is not perfect. It needs to be approved by majority vote. And it must be amended from time to time.
4. An expert of the Vinaya must possess certain attributes.

## Objectives

To enable the student to learn about jurisprudence according to the Tipitaka: The origin of law according to the Tipitaka, the law according to the Tipitaka is called the Vinaya, the disciplinary rules or the Sikkhapada, the steps involved in decreeing a disciplinary rule, the number and categories of disciplinary rules, some examples of disciplinary rules, each disciplinary rule was decreed by the Lord Buddha, the meeting of monks to review the disciplinary rules every 15 days, cases of dispute, case settlements, and experts in the Vinaya.

## Chapter 7

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# Jurisprudence According to the Tipitaka

### 7.1 An Overview of Jurisprudence According to the Tipitaka

Jurisprudence according to the Tipitaka refers to a monk's Vinaya or disciplinary rules especially the 227 disciplinary rules<sup>1</sup>. These 227 disciplinary rules are used to control the physical and verbal conduct of a monk. Therefore, the Vinaya can be compared to secular law, which serves to control the conduct of people in society.

Every disciplinary rule is precise and concise so that each monk can clearly understand it and practice it correctly. The Vinaya dictates that every monk meets together every 15 days to review these 227 disciplinary rules so that they can commit them to memory. This is contrary to the secular world where the government does not make sure that its citizens have a thorough knowledge of its laws.

The 227 disciplinary rules as well as other minor disciplinary rules had all been decreed by the Lord Buddha. Whenever there was an incident of misconduct, the Lord Buddha would call a meeting of all of the monks in order to investigate the problem. The monk involved in the misconduct would be admonished before the Lord Buddha explained to him and every monk present what harm could be caused by such misconduct. The Lord Buddha would then decree the relevant disciplinary rule after the fact. The new disciplinary rule not only forbids all Buddhist monks to commit the particular misconduct but also prescribes the penalty involved should the disciplinary rule be transgressed by any monk in the future. The monk responsible for the incident was not considered guilty because the particular disciplinary rule had not yet been decreed. The Lord Buddha did not wish for any disciplinary rule to be retroactive. Therefore, every disciplinary rule was decreed by the Lord Buddha after the fact. And it is up to His disciples to learn them and practice them. The Vinaya is different from secular law in that in the secular world a large number of lawyers have to come together to draft and propose the different laws and have them approved by the Parliament. And only the laws approved by the Parliament can be enforced.

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<sup>1</sup> The Pali term for a disciplinary rule is "Sikkhapada".

The disciplinary rules are sacred. They serve as a monk's code of conduct so that all the monks can live together in peace and harmony. This has been the case for more than 2,500 years. The Vinaya is like the Constitution of the monastic community. The monks can decree certain minor rules as dictated by the times and circumstances but these must not violate the existing disciplinary rules in the same way that new laws in the secular world must not violate the Constitution.

Should the Lord Buddha allow the monks to decree disciplinary rules, monks of later generations who still possess defilements and inadequate insight may decree inappropriate rules or cancel some of the existing ones. This scenario can lead to the demise of Buddhism. Moreover, the disciplinary rules decreed by ordinary monks cannot be perfect, hence, not sacred and not unanimously accepted by all the monks. This situation has the potential to cause divisiveness within the monastic community. By contrast, the Lord Buddha's disciplinary rules are perfect and sacred and have been responsible for keeping the monks and Buddhism intact for over 2,500 years.

One outstanding aspect of the Vinaya is that it emphasizes self-control and self-examination. Should a monk transgress the Vinaya by, for example, having sexual intercourse, he will no longer be a monk whether or not his misconduct is known to others. This is in contrast to the secular world where a suspect will be punished only after he can be found guilty by the court.

## **7.2 The Origin of Law According to the Tipitaka**

In the Agganna Sutta, we learn about the evolution of human society especially in terms of government, which has to do with jurisprudence or the law. In the very beginning, no rules and regulations existed because early humans were virtuous and possessed a great amount of merit. After all, they had just ceased to be in the Brahma Realm in order to be reborn in the Human Realm. They knew to practice righteousness, and they could live together peacefully and happily.

An interminably long period went past; human defilements began to rear their ugly heads. Some of these early humans began to commit unwholesome deeds thereby causing not only the environment to deteriorate but also problems for the society. As a result, the rest of these early humans had to come together to make up rules and regulations such as division of land, respect of land ownership, the appointment of a ruler who did the work of enforcing the said rules and regulations. The rules and regulations of early humans served as their law. With time, more and more laws had to be added.

It is mentioned in the Cakkavatti Sutta and the Mahasudassana Sutta that the Tenfold Wholesome Course of Action and the Five Precepts were also part of these early rules and regulations. Both are considered to be “human virtues” and early humans instinctively knew to practice them. It was the reason that they could live together happily for an interminably long time. When defilements caused certain early humans to transgress these two sets of virtues, more and more rules needed to be established. Evolution of these rules and regulations all throughout the ages give us the secular law as we know it today. The law serves to protect the rights of individuals and punish lawbreakers.

### **7.3 The Vinaya Is the Law According to the Tipitaka**

The closest Buddhist term for the law is “Vinaya” or “Sila”. Vinaya consists of disciplinary rules. Vinaya means “the rules used to train the body and the word” (Vinayanato ceva kayavacanan). The Vinaya prevents inappropriate physical and verbal conduct. The Vinaya is highly important in Buddhism. It makes up a third of the Tipitaka called the Vinayapitaka.

During the Lord Buddha’s time, the word used for the Tipitaka or Buddhism was “Dhammavinaya”. It comes from the words “Dhamma” and “Vinaya”. These two words represent Buddhism. If we understand the relationship between these two words then we will understand all of the principles of Buddhism.

Dhamma means reality. Reality exists whether or not the Buddha happens. But all of the Buddhas, once they happen, see all of reality and teach it to others.<sup>2</sup>

Reality refers to many things such as nature, natural laws, the truth, etc. The Lord Buddha attains Self-Enlightenment by attaining Dhammakaya. And it is through the Dhammakaya-Eye that He sees all of reality.

In order to teach His enlightened knowledge to the world and organize His Teachings systematically so that they will be around to benefit humanity for a very long time, He needs the Sangha or the monastic community to carry on His work. The formation and existence of the Sangha or monastic community requires rules and regulations in order to make sure that its members conduct themselves properly as befitted the Lord Buddha’s disciples.

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<sup>2</sup> *Paccaya Sutta Samyuttanikāya Nidānavagga*. Bangkok: Mahamakut Buddhist University Press, vol. 26, no. 61, p. 96

As a result, the Vinaya came into existence. The Lord Buddha tells us that there are 10 reasons for decreeing the Vinaya.<sup>3</sup> But the overall reason is to make sure that members of the monastic community conduct themselves properly.

Originally, there existed Dhamma or reality. But in order for as many people as possible to benefit from the Dhamma, Vinaya or rules had to be decreed. Dhamma means reality. It is the highest truth. Therefore, Dhamma is both the basis and the aim of Vinaya.

Dhamma exists because it simply is but Vinaya has to be decreed. The Vinaya as decreed by the Lord Buddha refers to the 227 disciplinary rules or Sikkhapada-227. However, the Five Precepts, the Noble Eightfold Path, etc., are part of the Dhamma or the Lord Buddha's enlightened knowledge.

Originally, the monastic community was made up of Ariya individuals. They had attained the different stages of Enlightenment; therefore, their defilements were at a low level. They also possessed self-discipline. They practiced Right Speech, Right Action, and Right Livelihood. Therefore, there was not yet any need for disciplinary rules. In the times of certain Lord Buddhas such as the Lord Vipassi Buddha, the Lord Sikhi Buddha, and the Lord Vessabhu Buddha, no disciplinary rules were decreed at all. This was possible because the monks under these Buddhas knew to practice righteousness. It can be concluded that the Vinaya or the law is necessary only in the periods where humans are dominated by defilements.

### **7.3.1 The Longevity of Buddhism Depends on the Disciplinary Rules**

On one occasion, Venerable Sariputra Thera wanted to know the religion of which Buddha was around for a long time and the religion of which Buddha was not. Therefore, he went to see the Lord Buddha in order to ask his question. The Lord Buddha told him that the religion of the Lord Vipassi Buddha, the Lord Sikhi Buddha, and the Lord Vessabhu Buddha did not last long but the religion of the Lord Kakusandha Buddha, the Lord Konagamana Buddha, and the Lord Kassapa Buddha lasted a long time.

There were three reasons why Buddhism did not last long.

- (1) The Lord Vipassi Buddha, the Lord Sikhi Buddha, and the Lord Vesabhu Buddha did not give detailed Dhamma lectures; therefore, Their Teachings were few.
- (2) They did not decree any disciplinary rules.

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<sup>3</sup> Please see details on page 149

(3) They did not teach the Patimokkha to their disciples. Patimokkha means the collection of disciplinary rules. Since there were no disciplinary rules, there was no need for the monks to meet and review them every 15 days.<sup>24</sup>

Once these Lord Buddhas and Their disciples attained Complete Nibbana, monks of later generations who came from different families, different backgrounds, and different countries caused Buddhism to disappear. They were like a pile of different kinds of flowers that were scattered by the wind because they had not been arranged into a garland.

There were three reasons why Buddhism was around for a long time.

- (1) The Lord Kakusandha Buddha, the Lord Konagamana Buddha, and the Lord Kassapa Buddha gave detailed Dhamma lectures; therefore, Their Teachings were many.
- (2) They decreed disciplinary rules.
- (3) They taught the Patimokkha to Their disciples.

It is stated in the Commentary that the reason the Lord Vipassi Buddha, the Lord Sikhi Buddha, and the Lord Vessabhu Buddha did not teach the Dhamma in detail is that during the times of these Buddhas, the average human lifespan was very long and people possessed a low level of defilements. As a result, no sooner than the people heard just one verse of the Dhamma lecture on the Four Noble Truths they could attain the Dhamma. Therefore, there was no need for many long and elaborate Dhamma lectures.<sup>5</sup>

Even as a householder, Venerable Sariputra Thera possessed tremendous insight and a low level of defilements, it only took one verse of the Dhamma lecture on the Four Noble Truths from Venerable Assaji Thera for him to attain the Fruit of Sotapanna: “Suffering is caused by craving. Suffering ceases when craving is eliminated. To eliminate craving, one must practice according to the Noble Eightfold Path.”<sup>6</sup>

Just think! If every one of the Lord Buddha’s disciples was as insightful as Venerable Sariputra Thera, there would not be any need for Him to give many Dhamma lectures at all. If all that was passed on to us was just this one verse and the Ovadapatimokkha Lecture, we could listen to them hundreds or thousands of times, and we would still not be able to attain the Dhamma. The reason is we still possess a high level of defilements and a small amount of insight.

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<sup>4</sup> *Vinayapiṭaka Mahavibhaṅg Part II*. Bangkok: Mahamakut Buddhist University Press, vol. 4, no. 689, p. 757

<sup>5</sup> *Vinayapiṭaka Mahavibhaṅg Part I. Paṭhamasamantapasadikaplar*. Bangkok: Mahamakut Buddhist University Press, vol. 1, p. 344

<sup>6</sup> *Dhammapadaṭṭhakatha Aṭṭhakathā-khuddaka-nikāya Gāthā-Dhammapada*. Bangkok: Mahamakut Buddhist University Press, vol. 40, p. 126

## **The Longevity of Buddhism**

The longevity of Buddhism can be counted as years or generations. The Lord Vipassi Buddha happened when the average human lifespan was 80,000 years. As a result, His religion lasted for 160,000 years. The Lord Sikhi Buddha happened when the average human lifespan was 70,000 years. As a result, His religion lasted for 140,000 years. The Lord Vessabhu Buddha happened when the average human lifespan was 60,000 years. As a result, his religion lasted for 120,000 years. When counted by the number of years, we can see that these Lord Buddhas' religion lasted a very long time. However, when counted by the number of generations, their religion did not last very long at all. It lasted for only two generations.<sup>7</sup>

The Lord Kakusantha Buddha lived to be 40,000 years old while the Lord Konagamana Buddha lived to be 30,000 years old and the Lord Kassapa Buddha lived to be 20,000 years old. These Buddhas decreed disciplinary rules and taught the Patimokkha to their disciples. They left behind a large number of teachings. As a result, their religion lasted a long time both in the number of years and in the number of generations.<sup>8</sup> For our Lord Gautama Buddha, His religion has lasted more than 2,500 years. It is a short time when counted by the number of years. When counted by the number of generations, it has been 30 generations altogether. During the Lord Gautama Buddha's time, the average human lifespan was 100 years. His religion will last for as long as members of the Four Buddhist Communities continue to cherish the learning and the practice of the Dhamma.

### **7.3.2 The Right Time to Decree Disciplinary Rules**

Once the Lord Buddha told His disciples how the disciplinary rules could help make Buddhism last for a long time, Venerable Sariputra entreated the Lord Buddha to decree them and teach the Patimokkha to the disciples.

But the Lord Buddha said that the time had not yet come and He alone knew when the right time would be for decreeing the disciplinary rules and teaching the Patimokkha. At the time, all of the Lord Buddha's 500 disciples were Ariya individuals. They practiced righteousness, and had not behaved in any way inappropriate.

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<sup>7</sup> *Vinayapiṭaka Mahavibhaṅg Part I. Paṭhamasamantapasadikaplar.* Bangkok: Mahamakut Buddhist University Press, vol. 1, p. 352

<sup>8</sup> *Ibid.*, p. 352-353

The Lord Buddha added that the right time for decreeing disciplinary rules and teaching the Patimokkha was after misconduct or “Asavattaniyadhamma” had occurred. “Asavattaniyadhamma” included having sexual intercourse, stealing, boasting about the supernatural powers that one did not possess, etc.

There are three main reasons for decreeing a disciplinary rule:

(1) When the number of Bhikkus who had ordained for many years increased, the Lord Buddha needed to decree certain disciplinary rules such as forbidding unintelligent monks to be a Preceptor, etc.

(2) When there were a large number of Bhikkus and they differed in the number of years spent in the monkhood, the Lord Buddha needed to decree certain disciplinary rules in order to make sure that monks differing in seniority conducted themselves properly.

(3) When the number of Bhikkus had increased and they were offered plenty of food and alms, the Lord Buddha needed to decree certain disciplinary rules regarding the sharing of these alms such as forbidding Bhikkus to give things to heretics directly. If they wished, they could ask a lay devotee to do it for them. Etc.

It is written in the Commentary that the Lord Buddha would not decree a disciplinary rule before the fact because if He did, others would find fault with him. Some might criticize Him for being heavy-handed. After all, Bhikkus were pure in that they had left behind all their material wealth and relatives in order to enter the monkhood to practice renunciation. They would certainly not want to have sexual intercourse, steal, kill, boast about supernatural powers, etc.

Decreeing a disciplinary rule before the fact would be like an unintelligent physician that operated on the patient before any tumor appeared. It would be like telling his patient beforehand that the growth would appear in such and such an area; therefore, the area needed to be operated on immediately. If he had done such a thing, people would definitely find fault with him and thought him incredibly stupid. A clever physician would operate on the patient and treat the wound only after the growth had appeared. In that case, no one could find fault with him but he would receive praises and payments in return.

## 7.4 The Components of a Disciplinary Rule

There are five components to a disciplinary rule.

- 1) **The cause:** The first incident of misconduct that caused the Lord Buddha to decree the particular disciplinary rule. For example, Venerable Sudinna's misconduct was the cause of the first disciplinary rule called the first Parajika Sikkhapada.
- 2) **The decree:** An original disciplinary rule is called "Mulapannati". Additional disciplinary rules decreed to make the original disciplinary rule more stringent are called "Anupannati" as shown in the following example.

The Mulapannati of the third Parajika Sikkhapada states that "Any monk who deliberately kills a person or makes an effort to have a person killed must receive Parajika."<sup>9</sup>

The Anupannati of the third Parajika Sikkhapada states that "Any monk who deliberately kills a person or makes an effort to have a person killed or describes the virtue of death or encourages a person to seek death by saying, 'Why should you put up with such a life of hardship. Would it not be much better for you to be dead?' must receive Parajika.

- 3) **The description (Vibhanga) and elaboration (Bhajaniya) of a disciplinary rule:** For example, in the first Parajika Sikkhapada, a Bhikku is described as having twelve different meanings such as the one who begs, the one who goes on an alms-round, etc.

In the second Parajika Sikkhapada, the term "things that are not given by the owner" is further elaborated to include resources in the ground, resources on the ground, resources in the air, etc.

- 4) **An exception (Anapattivara):** It means an exception to a disciplinary rule. For example, in the third Parajika Sikkhapada, which deals with killing a person, there are exceptions to the Sikkhapada as follows: When a monk has no intention of killing a person, when a monk is insane, when the killing happened before the fact; that is, before the disciplinary rule was decreed, etc.
- 5) **Vinitavatthu:** This component of the disciplinary rule includes all of the cases decided by the Lord Buddha. They can be used as references for future cases. For example, there are altogether 103 such cases in the third Parajika Sikkhapada. Vinitavatthu can be compared to the Supreme Court rulings.

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<sup>9</sup> Parajika is the gravest penalty imposed by the Vinaya. A monk who receives the Parajika sentence is no longer a monk and can never enter the monkhood again. Parajika can be compared to an execution in secular law.

## **7.5 Steps Involved in Decreeing a Disciplinary Rule**

There are altogether four steps as follows.

- 1) An incident has occurred.
- 2) The monks request the Lord Buddha to decree a particular disciplinary rule.
- 3) The monks are summoned to a meeting.
- 4) The disciplinary rule is decreed.

At the meeting, the Lord Buddha would first ask the monk in question about his involvement in the incident. Upon the monk's admission, the monk would be admonished by the Lord Buddha. He would then be informed of the harm caused by his action; for example, the harm caused by being difficult to provide for, the harm caused by being difficult to care for, the harm caused by greed, the harm caused by the lack of contentment, the harm of laziness, etc. The Lord Buddha would then inform the said monk of the benefit of being easy to provide for, easy to care for, etc. The Lord Buddha would then inform the congregation of the purpose of the particular disciplinary rule before decreeing it.

### **An Example of the Process Involved in Decreeing a Disciplinary Rule**

This example has to do with the first Parajika Sikkhapada

The monk that caused this disciplinary rule to be decreed was Venerable Sudinna. The incident involved him having sexual intercourse with his former wife. Since entering the monkhood, Venerable Sudinna had been under pressure from his parents to disrobe, have children, and carry on the family's name and fortune. But Venerable Sudinna did not wish to disrobe. That was when his mother told him to at least leave them with a grandchild so that the rulers of Licchavi would not confiscate their fortune because they had no one to inherit it after they died.

Venerable Sudinna told his mother that he would do it, for he did not think that any harm could come from his action. At the time, no such disciplinary rule had been decreed just yet. Venerable Sudinna led his wife to the Mahavanna Forest and had sexual intercourse with her there. His act was witnessed by all the earth sprites in the area and the news about his act spread all the way to the Brahma Realm. They found Venerable Sudinna's act highly deplorable.

Later, Venerable Sudinna felt guilty about his action and his guilt caused him to lose weight, his countenance became gloomy, and his complexion turned sallow.

His fellow monks noticed the change in him and asked him what was causing the change. Venerable Sudinna told them about what had happened. The monks reminded Venerable Sudinna that the Lord Buddha's Teachings were for the purpose of dispelling lust, passion, craving, and suffering so that one could attain Nibbana. They told him that his action would cause non-believers to disbelieve and believers to lose faith in Buddhism.

Afterward, the monks went to see the Lord Buddha and told Him about the incident. The Lord Buddha summoned all the monks to a meeting. When every monk was present the Lord Buddha asked Venerable Sudinna, "Behold, Sudinna, is it true that you had sexual intercourse with your former wife?"

Venerable Sudinna answered, "It is true, Most Exalted One."

The Lord Buddha admonished Venerable Sudinna and said to him to the effect that, "Your action is deplorable. It is not what a monk should do. Your action is unacceptable. You entered the monkhood in order to practice the Dhamma-Vinaya. Why can't you practice chastity for the rest of your life?"

You would have been better off sticking your sexual organ into a cobra's mouth, for then you would have experienced only physical pain and death. You would not have to be reborn in the States of Unhappiness.

You have practiced what is lowly and evil for an ordained monk. Sexual intercourse is befitting the laypeople, for it has to be carried out by couples hidden from other people's view. You are the first of our monastic community to have committed this misdeed. Your action causes non-believers to disbelieve and believers to lose faith in Buddhism."

### **The Purpose of Decreeing a Disciplinary Rule**

Having thus admonished Venerable Sudinna, the Lord Buddha told the congregation about the harm of certain attitudes and habits and the virtue of certain attitudes and habits. He then told the monks about the ten purposes of decreeing a disciplinary rule.

- (1) A disciplinary rule is decreed in order to point out the harm of a certain act and explain the necessity of decreeing the particular disciplinary rule in order to prevent such an act from ever happening again.
- (2) Disciplinary rules are decreed for the happiness of the monks.
- (3) Disciplinary rules are decreed in order to intimidate those who are not easily embarrassed.

- (4) Disciplinary rules are decreed for the happiness of the monks who cherish morality.
- (5) Disciplinary rules are decreed in order to prevent defilements from rearing their ugly heads in the present.
- (6) Disciplinary rules are decreed in order to quell defilements that will rear their ugly heads in the future.
- (7) Disciplinary rules are decreed in order to inspire non-believers to have faith in Buddhism.
- (8) Disciplinary rules are decreed in order to inspire believers to have a deeper faith in Buddhism.
- (9) Disciplinary rules are decreed in order to make the Lord Buddha's Teachings last for as long as possible.
- (10) Disciplinary rules serve as the law for Buddhist monks.

The Lord Buddha subsequently decreed the first disciplinary rule, "Any monk engaged in sexual intercourse must receive the gravest penalty of Parajika."

This first disciplinary rule is called "Mulapannati". Later, more disciplinary rules that have relevance to this first disciplinary rule were decreed. These are called "Anupannati".

It can be concluded that disciplinary rules had been decreed in order to create for the monks a happy and peaceful environment conducive to Dhamma study, Dhamma practice, and the attainment of the Dhamma.

## **7.6 The Number and Categories of a Monk's Precepts**

A monk must observe "Apariyantaparisuddhisila". It means that a monk must observe an endless number of Precepts. It is said in the Visuddhimagga that the total number of a monk's Precepts is more than three million. But a monk's Precepts can be divided into four categories called Parisuddhisila-4 as follows.

- (1) Patimokkhasamvarasila: It means self-restraint as prescribed by the 227 disciplinary rules.
- (2) Indriyasamvarasila: It means the restraint of the eyes, ears, nose, tongue, body, and mind such that one does not derive pleasure or displeasure from the physical form, the sound, the smell, the taste, and the touch. One does not dwell on different past emotions associated with these five sense-faculties.

- (3) Ajivaparisuddhisila: It means right livelihood. It means that a monk must practice righteousness according to the Dhamma-Vinaya and sustain himself by the four requisites provided by householders. A monk does not earn a living the way a householder does. Neither does he seek gains by deceptive means.
- (4) Paccayasannissitasila: It means all the Precepts having to do with the contemplation of the four requisites: robe, food, shelter, and medicine before consuming them. One does not consume these things for any purpose other than to sustain oneself so that one can practice the Dhamma.

There is much more to Parisuddhisila-4 and here only some detail of the Patimokkhasamvarasila or the 227 disciplinary rules will be mentioned. These disciplinary rules are precise and concise and the penalty associated with each disciplinary rule is clearly spelled out making it easy to compare them to secular law.

There are eight categories to Patimokkhasamvarasila: Parajika-4, Sanghadisesa-13, Aniyata-2, Nissaggiyapacitaya-30, Pacitaya-92, Patidesaniya-4, Sekhiyavatara-75, and Adhikaranasamatha-7. These disciplinary rules are arranged in the order of decreasing gravity in that Parajika is the gravest penalty and Sekhiyavatara is the lightest penalty. Adhikaranasamatha-7 is different from other categories in that it provides methods for settling a case.

- (1) Parajika means a loser. It means losing the path of monkhood. Parajika involves the most serious offences and a Bhikku that has committed any of these offences can no longer be a Bhikku. He is merely a householder in the Bhikku's garb. A Bhikku guilty of the most serious offence as specified in this category of disciplinary rules must disrobe instantly and he can never enter the monkhood again for the rest of his life.
- (2) Sanghadisesa means an offence committed by a Bhikku and must be corrected by the Sangha. When a Bhikku has committed an offence specified in this category of disciplinary rules, he must be placed in solitary confinement so that he can review his mistake as well as the way to prevent it from ever happening again. Once the term and the steps involved in solitary confinement have been completed, the said Bhikku can return to the monastic community.

Nowadays, many Bhikkus choose solitary confinement even though he is not guilty of Sanghadisesa in order to review the way he has been observing the Monk's Precepts as well as how to improve upon it. Some Bhikkus, upon having doubts about the way they have been observing the Precepts may voluntarily commit themselves to solitary confinement. Moreover, solitary confinement is the time where one has all the time to study and practice the Dhamma knowing that he will not be disturbed by his fellow monks.

Transgression of the rest of the disciplinary rules requires the confession of an offence to other monks for it to be resolved.

- (3) Aniyata means uncertainty. It means the disciplinary rules that deal with how to decide if a Bhikku has committed Parajika, Sanghadisesa or Pacittiya. This category of disciplinary rules can be compared to the different levels of punishment in secular law.
- (4) Nissaggiyapacittiya comes from the words "Nissaggiya" which means "giving up things" and "Pacittiya" which means "transgression". Therefore, Nissaggiyapacittiya means a Bhikku, who has transgressed a disciplinary rule, must give up a certain item associated with the transgression such as the robe, etc., before confessing his transgression to his fellow monks.
- (5) Pacittiya does not require a Bhikku to give up a certain item but he can confess his transgression to his fellow monks directly.
- (6) Patidesaniya means "the act of returning". A Bhikku who has committed Patidesaniya must perform the act of returning by saying "Fellow Bhikkus, I have transgressed Patidesaniya. My action is blameworthy and unfavorable. I intend to return my transgression." The act of returning is a form of confession.
- (7) Sekhiyavatra means the monastic daily routine having to do with such good manners as the proper wearing of the robe, proper eating manner, etc. A Bhikku, who has committed Sekhiyavatra, must be determined to improve his manners.
- (8) Adhikaranasamatha means the different methods used to settle a case. More detail will be presented in 7.10 and 7.11

## 7.7 Some Examples of the Disciplinary Rules

The Patimokkha contains the 8 categories of the 227 disciplinary rules. Here, only two categories will be mentioned: Parajika and Sanghadisesa.

### Parajika-8

- (1) A Bhikku who has had sexual intercourse with someone or with a female animal must receive Parajika.
- (2) A Bhikku who has stolen something worth 5 masaka or more must receive Parajika.
- (3) A Bhikku who has intentionally killed a human being or persuaded a person to commit suicide must receive Parajika.
- (4) A Bhikku who has boasted about the supernatural powers that he does not possess must receive Parajika unless it was an honest mistake.

### Sanghadisesa-13

- 1) A Bhikku who has intentionally caused his semen to flow must receive Sanghadisesa.
- 2) A Bhikku who has lustfully touched a woman must receive Sanghadisesa.
- 3) A Bhikku who has lustfully suggested sexual intercourse to a woman must receive Sanghadisesa.
- 4) A Bhikku who has lustfully asked a woman to do him a sexual favor must receive Sanghadisesa.
- 5) A Bhikku who has acted as a matchmaker must receive Sanghadisesa.
- 6) A Bhikku who has built his own private dwelling must receive Sanghadisesa.
- 7) A Bhikku who has built a large Vihara for himself without any regards for existing rules concerning the construction of Vihara must receive Sanghadisesa.
- 8) A Bhikku who has provided false evidence in order to falsely accuse another Bhikku of Parajika must receive Sanghadisesa.
- 9) A Bhikku who has found an excuse to provide false evidence in order to falsely accuse another Bhikku of Parajika must receive Sanghadisesa.
- 10) A Bhikku who has continued to try to cause divisiveness within the monastic community despite being thrice warned formally by the monks in a meeting must receive Sanghadisesa.
- 11) A Bhikku who has supported the Bhikku in 10) despite being thrice warned formally by the monks in a meeting must receive Sanghadisesa.

- 12) A Bhikku who has refused to stop doing something despite being thrice warned formally by the monks in a meeting must receive Sanghadisesa.
- 13) A Bhikku who has continued to curry favor with the householders despite being thrice warned formally by the monks during a meeting must receive Sanghadisesa.

## **7.8 Disciplinary Rules: The Lord Buddha's Decrees**

It should be clear to the student by now that every disciplinary rule was decreed by the Lord Buddha. The Lord Buddha was responsible for every detail concerning the disciplinary rules. However, His disciples were summoned to a meeting each time a disciplinary rule was being decreed so that they understood the reason for it and how they needed to learn the particular disciplinary rule in order not to transgress it.

Only the Lord Buddha can decree the disciplinary rules because He alone possesses complete and perfect knowledge. As a result, the disciplinary rules never need to be amended in the same way that secular laws need to be amended from time to time. Arahats are devoid of defilements but they do not possess complete and perfect knowledge.

It is the duty of the Lord Buddha's disciples to practice righteousness according to the Dhamma-Vinaya. It is also their duty to teach and explain the Dhamma or the Lord Buddha's Teachings.

During the Lord Buddha's time, there was a situation where the Master of one school of thought called "Niganthanataputra" died and his followers became divided. Venerable Ananda took the opportunity to ask the Lord Buddha about the situation. The Lord Buddha said,

Niganthanataputra died... His followers were divided into two groups, etc., because the Dhamma-Vinaya he had taught was not sound. It is not the Dhamma-Vinaya that can lead its practitioner out of suffering. It is not the Dhamma-Vinaya of peace. It is not the Lord Buddha's Dhamma Vinaya. Niganthanataputra's Dhamma-Vinaya is now defunct...

The Dhamma-Vinaya that is not decreed by the Lord Buddha is not perfect because the Master who decreed it did not possess perfect knowledge as in the case of the Lord Buddha. When his disciples practiced his imperfect Dhamma-Vinaya, they could not put an end to suffering. Moreover, the experience of different disciples differed one from another and each was under the impression that his experience, therefore, his practice was correct.

By contrast, the Dhamma-Vinaya decreed by the Lord Buddha is perfect because He possesses complete and perfect knowledge. When His disciples practice His Teachings to the fullest extent, all of them can attain Enlightenment.

One may ask why the Lord Buddha does not allow Arahats to decree any of the disciplinary rules. The reason is although Arahats have attained Enlightenment, they still lack the attributes necessary to decree a disciplinary rule. The disciplinary rules as decreed by the Lord Buddha must be timeless in that they must be applicable for at least 5,000 years. No Arahats or Paccekabuddhas are qualified to decree a disciplinary rule, only the Lord Buddha is.

In the Tipitaka, there are mentioned many incidents where an action of an Arahata was deemed inappropriate by the Lord Buddha because it could have a negative effect on the monastic community as a whole in the future. For example, Venerable Mahakappina did not wish to attend the recitation of Patimokkha thinking it unnecessary in his case, since he had already attained Arahata-ship. The Lord Buddha promptly told the Arahata that he had to show his respect for the Patimokkha by attending the Patimokkha recitation as part of Sanghakamma.<sup>10</sup> In other words, it was the Lord Buddha's wish that the Arahats attended such Sanghakamma as an example for ordinary monks then and in the future.

This incident exemplifies the fact that Arahats do not possess the Lord Buddha's level of foresight. And if they were to decree a disciplinary rule, there would surely be many problems later on. In later times, the Bhikkus who practiced righteousness according to the Dhamma-Discipline understood that they were not to add to or delete from existing disciplinary rules. However, there were other Bhikkus who thought differently and they had done much to change the disciplinary rules. Fortunately, the number of righteous monks was high and they had kept the Dhamma-Vinaya intact for the Bhikkus of future generations.

The Vinaya comes from the Lord Buddha's enlightened knowledge, hence, it is perfect. It provides happiness and growth for those who practice it. The Lord Buddha did permit minor disciplinary rules to be deleted according to changing circumstances. However, during the first Sangiti attended by 500 Arahats and presided over by Venerable Mahakassapa Thera, no one could agree on which disciplinary rules were minor. Therefore, it was unanimously agreed that all of the disciplinary rules be kept intact.

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<sup>10</sup> *Vinayapiṭaka Mahāvagga*. Part I, Bangkok: Mahamakut Buddhist University Press, vol. 6, no. 153, p. 385

## 7.9 The Patimokkha Chanting

It is every Bhikku's duty to learn and memorize the 227 disciplinary rules. For this reason, the Lord Buddha had the Bhikkus meet to review them biweekly. This Sanghakamma is called the "Patimokkha Chanting". It requires that a Bhikku, who has accurately memorized all 227 disciplinary rules, does the chanting while the rest of the Bhikkus listen to it. During the chanting, it is the time for each Bhikku to review every disciplinary rule as well as considering the way he has been observing them and where there may be room for improvement.

It is a rule that all the Bhikkus residing in the same temple attend the Patimokkha Chanting together. There was one incident where a group of Bhikkus decided to hold a separate Patimokkha Chanting. As a result, the Lord Buddha had to decree a disciplinary rule forbidding Bhikkus to hold a separate Patimokkha Chanting. However, if a Bhikku is indisposed, he is permitted to tell a fellow monk that in the past 15 days, he has observed the Bhikku's Precepts immaculately. But if a Bhikku is too ill to do so, he is to be carried on a stretcher to the meeting and listen to the Patimokkha Chanting. However, if a Bhikku is deemed too sick to be moved, the rest of the Bhikkus should congregate around the gravely ill Bhikku to hold the Patimokkha Chanting.<sup>11</sup>

The Lord Buddha held the Patimokkha Chanting to be so important that even Arahats had to attend. The Patimokkha Chanting fosters unity among the Bhikkus and gives them the opportunity to review the way they have been observing the Bhikku's Precepts.

In the secular world, the government does very little to educate the general public of its laws, left alone having the people review them every 15 days despite the fact that national law concerns every citizen. And yet, every citizen is expected to know the law because there is no such excuse as breaking the law in ignorance. It is not surprising then that only the people that study law have some knowledge of it. By contrast, every member of the monastic community is provided the opportunity to study the monastic disciplinary rules.

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<sup>11</sup> *Vinayapiṭaka Mahāvagga*. Part I, Bangkok: Mahamakut Buddhist University Press, vol.6, no. 181, p.460-461

## 7.10 Cases of Dispute (Adhikarana)

Adhikarana means a disciplinary case of dispute. It includes conflicts and other affairs. There are four aspects of Akhikarana.

Vivadadhikarana:	Conflicts about the Dhamma-Vinaya
Anuvadadhikarana:	Questions concerning accusations
Apattadhikarana:	Offences and their penalties
Kiccadhikarana:	The Sangha's duties

### 7.10.1 Vivadadhikarana: Conflicts about the Dhamma-Vinaya

The Lord Buddha says that Vivadadhikarana arises out of the following nine causes.

- (1) This is the Dhamma; this is not the Dhamma.
- (2) This is the Vinaya; this is not the Vinaya.
- (3) The Lord Buddha says this; the Lord Buddha does not say this.
- (4) This is what the Lord Buddha practices; this is not what the Lord Buddha practices.
- (5) This is what the Lord Buddha decrees; this is not what the Lord Buddha decrees.
- (6) This is an offence (Apatti); this is not an offence.
- (7) This is a minor offence; this is a serious offence.
- (8) This offence does not terminate one's monkhood; this offence terminates one's monkhood.
- (9) This is an evil offence; this is not an evil offence.

All nine causes of conflicts create differences, arguments, hurtful remarks, etc.

The Lord Buddha says that the root cause of Vivadadhikarana is the three families of defilements: greed, anger, and ignorance. These are displayed as hot-headedness, disdain, disrespect, envy, jealousy, miserliness, arrogance, deceit, evil desire, wrong view, self-righteousness. Any Bhikku harboring such sentiments no longer respects the Lord Buddha, the Dhamma, and the Sangha. His Dhamma practice will not improve. And he will cause dissension among the Bhikkus.

In addition, the Lord Buddha says that Vivadadhikarana can at times be caused by conflicts of opinion during a Dhamma conversation.

### **7.10.2 Anuvadadhikarana: Questions Concerning Accusations**

The Lord Buddha says that Bhikkus can make an accusation against a Bhikku who transgresses the Precepts (Silavipatti), has poor manners (Acaravipatti), has wrong view (Dithivipatti) or earns wrong livelihood (Ajivavipatti). Such accusations are called Anuvadadhikarana.

There are at least four causes of Anuvadadhikarana. The first one is the three families of defilements: greed, anger, ignorance. These are displayed as hot-headedness, disdain, disrespect, etc., which cause one Bhikku to find fault with another Bhikku and accuse him of misconduct. The second one refers to an accusation made with the intention of helping the accused Bhikku to improve himself so that he can grow in the Dhamma-Vinaya.

The third cause has to do with the body. The Lord Buddha says that some Bhikkus who have a very poor complexion, a very slight built, a very poor health, a very poor eyesight, severe lameness, can at times behave improperly as a result of his physical limitations. Another Bhikku may accuse a handicapped Bhikku of misconduct without realizing his physical limitations. The fourth cause has to do with the way one talks. A Bhikku may stutter, slur his speech, use inappropriate words or use words that are offensive.

### **7.10.3 Apattadhikarana: Offences and Penalties**

The names for the seven offences and penalties include Parajika, Sanghadisesa, Thulalaccaya, Pacittiya, Patidesaniya, Every Rule, and Dubbhasita. In the cases of Parajika, Sanghadisesa, Pacittiya, and Patidesaniya, the name of the offence corresponds to the name of the disciplinary rules or Sikkhapada except that the prefix “Apatti” is used.

“Thulalaccaya” means a gross offence. Its gravity ranks third; first being Parajika and second being Sanghadisesa. For example, a Bhikku who intentionally boasts about the supernormal powers that he does not really possess by claiming that he is an Arahat, if the listener understands his meaning, the offence is called “Apattiparajika”. However, if the listener does not understand his meaning, the offence is called “Apattithulalaccaya”.

A Bhikku sees a woman and touches something of her such as her clothes; he has committed “Apattithulalaccaya”. However, if he touches any part of her body, he has committed “Apattisanghadisesa”.

The term “Every Rule” means bad conduct. This offence incurs a lighter penalty than in the case of “Apattipatidesaniya”. This offence includes all of the disciplinary rules under the “Sekhiyavatta” category as well as all the disciplinary rules above and beyond Patimokkhasamvarasila which have to do with manners.

The term “Dubbhasita” means ill-spoken words. It incurs the lightest penalty but it can at times be treated as “Every Rule”. For example, a Bhikku wants to slight another Bhikku by making derogatory comments about his complexion or his stature, this Bhikku has committed “Apatti-Every Rule”. However, if the said Bhikku makes the comments in jest, he has committed “Apattidubbhasita”.

These seven categories of offence can be divided into two groups: Garukapatti and Lahukapatti.

Garukapatti means a grave offence called “Dutthulalapatti” and includes Parajika and Sanghadisesa. Parajika is a grave offence called “Atekkiccha” which means “cannot be corrected”, and the monkhood of the offending Bhikku is instantly terminated. Sanghadisesa is a grave offence called “Satekkiccha” which means “can be corrected” through the process of “Vutthanagamini” or solitary confinement.

Lahukapatti means a light offence called “Adutthulalapatti” and includes the rest of the five categories of offence starting from Thulalaccaya to Dhubbasita. These offences can be corrected through the process of “Desanagamini” or confession of the offence to a monk or a company of monks.

#### **7.10.4 Kicchadhikarana: The Sangha’s Duties**

The Sangha’s duties include Apalokanakamma, Nattikamma, Nattidutiyakamma, and Natticatutathakamma.

Apalokanakamma means bringing up a subject in the meeting in order to ask for the Sangha’s input. For example, Apalokanakathina means that a representative Bhikku informs the Sangha that the Kathina Robe will be given to a particular monk in order to ask for the Sangha’s approval. If every Bhikku at the meeting unanimously agrees that the Kathina Robe should be given to the said monk, it means that the particular monk will receive the Kathina Robe.

Nattikamma means informing the Sangha of a shared activity such as listening to the Patimokkha chanting.

Nattidutiyakamma means chanting the “Natti” (a motion) followed by chanting the “Anusavana” (proclamation) as in a Sangiti (holding a council to settle questions of doctrine), Samatisima (establishing a conventional boundary), etc.

Natticatutathakamma means chanting the “Natti” once followed by chanting the Anusavana thrice in order for the Sangha to have three opportunities to consider their decision. Natticatutathakamma is practiced during such important ceremonies as Upasampada (full ordination), Niggahakamma (chastising a perverse monk), etc.

Niggahakamma is a second level form of punishment to be exacted after the first level of punishment has been exacted. Niggahakamma applies to serious wrongdoings such as causing conflicts and arguments, creating a bad reputation, transgressing the Precepts, vilifying the Triple Gem, horse-playing, obscene conduct, deleting the Lord Buddha’s decree, earning wrong livelihood, etc.<sup>12</sup>

The Lord Buddha says that Kicchadhikarana or the Sangha’s duties can be performed only by the Sangha or a group of at least four Bhikkus.

## **7.11 Adhikaranasamtha: Case Settlements**

The Lord Buddha has given the Sangha seven principles to follow for settling a case.

- 1) Sammukhavinaya: It means rendering a verdict according to the Dhamma-Vinaya in the presence of the Sangha, and the persons involved in the case.
- 2) Sativinaya: It means a procedure for the acquittal of an Arahat who possesses fully-developed mindfulness.
- 3) Amulhavinaya: It means a verdict of insanity.
- 4) Patinnatakarana: It means doing according to what is admitted by the accused.
- 5) Tassapapiyasika: It means inflicting a penalty on one who is at fault.
- 6) Yebhuyyasika: It means a decision according to the majority.
- 7) Tinavatharakavinaya: It means a reconciliation of both parties without the need to clear up the rights and wrongs.

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<sup>12</sup> Phradhammakittivongsa (2548 B.E.) “Dictionary for Buddhist Studies, Kum Wat”, p. 403

## **An Example of Adhikaranasamtha**

There are many examples of Adhikaranasamtha in the Tipitaka but only one example will be presented here. The Lord Buddha says that a case can be settled by applying Sammukhavinaya and Yebhuyyasika but some cases can be settled through Sammukhavinaya alone.

### **1) Settling a Case through Sammukhavinaya**

Should an argument arise about the Dhamma-Vinaya between Bhikkus, it should be settled through Sammukhavinaya. The concerned parties are called to a meeting. The case is subsequently heard and settled according to “Dhammaneti”.

Dhammaneti comes from the words “Dhamma” and “Neti”. Neti here is the same as “Niti” which means tradition, custom, law, strategy.<sup>13</sup> It means judging the case according to the Dhamma-Vinaya in the same way that a case is being judged in the secular world by the judge and the lawyers. Once a case has been settled, whoever reopens the case later on will be guilty of Apattipacittiya.

#### **1.1) Settling a Case about the Place of Residence**

If a case about the place of residence cannot be settled, the Bhikkus involved in the case of dispute are to move to another monastic dwelling. Upon arriving at a new place, the Bhikkus are to inform their host monks about their situation and request them to help settle the case for them.

The Lord Buddha has given the host monks advice to follow in settling such a case of dispute as follows.

- 1) The host monks are to meet together to discuss the matter. If they deem that they cannot settle the case according to the Dhamma-Vinaya, they will not settle the case.
- 2) If they deem that they can settle case, they are to say to the visiting monks that if what you told us has actually happened, we are willing to settle the case for you. However, if what you told us has not actually happened, we will not settle the case.

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<sup>13</sup> Royal Institute (2525 B.E.), “Electronic Dictionary”

As for the visiting monks, the Lord Buddha has also given them advice to follow.

- 1) The visiting monks are to inform the host monks that what we told you has actually happened. If you can settle the case according to the Dhamma-Vinaya within the stated time, we are hereby asking you to settle the case.
- 2) If you cannot settle the case within the stated time, we will not ask you to settle the case but we will own the case ourselves.

Once the host monks and the visiting monks have conducted themselves accordingly and the case has been settled by applying Sammukhavinaya, whoever reopens the case later on is guilty of Apattipacittiya.

### **1.2) Settling a Case during an Uproar**

If a case cannot yet be settled and during the hearing there is an uproar such that words cannot be heard, the Lord Buddha allows the Sangha to employ the method of “Ubbahika” to help settle the case by first appointing a monk possessing the ten necessary virtues.

The method of “Ubbahika” means appointing a special committee to help settle the case of dispute.

#### **The Ten Virtues of the Appointed Monk**

- 1) He observes the Precepts immaculately. He practices according to the Patimokkha. He is possessed of manners and Gocara. He sees harm in the minutest misconduct. He is determined to study and observe every disciplinary rule.
- 2) He is scholarly. He has listened to a great number of Dhamma lectures. He can memorize and recite them well. He can penetrate these teachings.
- 3) He can memorize the Patimokkha in detail. He has a thorough understanding of it. He can recite it. His judgment is correct.
- 4) He is firmly planted in the Dhamma-Vinaya.
- 5) He may be able to explain the case to both parties and inspire them to understand the situation correctly.
- 6) He has a clever way of settling a case.
- 7) He knows the case at hand.
- 8) He knows the cause of the case.
- 9) He knows the case can be settled.
- 10) He knows how to settle the case.

## **The Appointment**

Once a Bhikku possessing the above ten virtues can be found, the Bhikku is appointed through Nattidutiyakammavaca as follows.

“Venerable Bhikkus, when we were hearing this case, there was an uproar and we could not hear the words properly. Therefore, it is now the time to appoint this monk with this name to settle the case by employing the method of “Ubbahika”. This is the motion. Any monk agreeing with the motion, please remain silent. Any monk disagreeing with the motion can now speak up.”

“With the unanimous agreement of the Sangha, this monk is now appointed to settle the case according to “Ubbahika”.

Once the case has been settled, it is still considered as Sammukhavinaya and whoever reopens the case later on is guilty of Apattipacittiya.

### **1.3) When a Monk Objects to the Judgment**

If the case cannot be settled because during the proceeding, a teacher of the Doctrine objects to the judgment because he cannot correctly remember the Dhamma-Vinaya in question or can only remember it partially. In this situation, the appointed Bhikku can say to the congregation,

“Venerable Bhikkus, this Bhikku is a teacher of the Doctrine but he cannot recall the Dhamma-Vinaya in question or can only remember it partially. Still, he has objected to the proceeding. Therefore, if it is unanimously agreed, this Bhikku should be asked to leave the meeting so that the case can be settled.”

Upon the departure of the said Bhikku the case is considered settled. Whoever reopens the case later on is considered to be guilty of Apattipacittiya.

## **2) Settling a Case by Applying Sammukhavinaya and Yebhuyyasika**

If a case cannot be settled through Ubbahika, the Sangha should settle it through Yebhuyyasika or the majority vote as allowed by the Lord Buddha. This is carried out by lots drawing. The Bhikku in charge of lots drawing must possess the following five virtues.

- (1) He does not practice partiality as a result of love.
- (2) He does not practice partiality as a result of hatred.
- (3) He does not practice partiality as a result of ignorance.
- (4) He does not practice partiality as a result of fear.
- (5) He knows which lots have or have not been drawn.

## **The Appointment**

Once a Bhikku possessing the above five virtues has been chosen, the Bhikku is appointed through Nattidutiyakammavaca as follows.

“Venerable Bhikkus, it is now the time to appoint this monk with this name to be in charge of lots drawing. This is the motion. Any monk agreeing with the motion, please remain silent. Any monk disagreeing with the motion can now speak up.”

“With the unanimous agreement of the Sangha, this monk is now appointed to be in charge of lots drawing.”

Now, the Bhikku in charge of the lots drawing lets each of the Bhikkus present draw his lots, and the case is settled by the majority vote. It means that the case was first unsuccessfully settled through Sammukhavinaya but later is successfully settled through Yebhuyyasika. Whoever reopens such a case is guilty of Apattipacittiya.

## **7.12 Vinayadhara: Experts in the Vinaya**

Vinayadhara is like a lawyer in the secular world. The venerable monk recognized by the Lord Buddha as being foremost in the Vinaya is Venerable Upali Thera. According to the Lord Buddha (the Pathamavinayadhara Sutta), to be learnt in the Vinaya, a Bhikku must possess the following seven attributes.

- (1) Knowing all seven categories of Apatti.
- (2) Knowing “Anapatti” in that he can differentiate between the acts that constitute Apatti and those that do not. For example, the Bhikkuni Upalavanna was not guilty of having sexual intercourse because she was raped.
- (3) Knowing “Lahukapatti” in that he knows the five categories of light Apatti, which include Thulalaccaya, Pacittiya, Patidesaniya, Every Rule, and Dubbhasita and how they can be resolved through confession.
- (4) Knowing “Garukapatti” in that he knows about the two categories of serious offences and the means to resolve them. He knows that Apattisanghadisesa can be resolved through solitary confinement but Apattiparajika requires the termination of monkhood.
- (5) Practicing self-restraint according to the Patimokkha in that he possesses manners and Gocara, sees danger in the minutest offence, diligently studies and observes every disciplinary rule.

The word “Gocara” means knowing the place to frequent and the place to avoid completely. Places to avoid completely include a brothel, a pub, etc.

- (6) Having attained the Four Jhanas
- (7) Having attained Arahathship

These seven attributes can be divided into two groups. The first group involves being learnt in the Vinaya and includes attributes 1, 2, 3, and 4. The second group involves morality and includes attributes 5, 6, and 7. In other words, a Vinayadhara or an expert in the Vinaya must not only possess in-depth knowledge about the Dhamma-Vinaya but must also practice morality.

#### **ASSIGNMENTS**

After you have finished studying this chapter, complete the test and the exercises provided in the workbook before proceeding to the next chapter.



# **Chapter 8**

## **Economics**

### **According to the Tipitaka**

## Chapter 8

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# Economics According to the Tipitaka

### **8.1 An Overview of Economics According to the Tipitaka**

### **8.2 Two Kinds of Wealth**

8.2.1 Material Wealth

8.2.2 Ariya Wealth

8.2.3 Relationship between Ariya Wealth and the Ways of Making Merit

8.2.4 The Importance of Material Wealth and Ariya Wealth

### **8.3 Microeconomics According to the Tipitaka**

8.3.1 The Causes of Wealth and the Causes of Poverty

8.3.2 Micchavaniija: Wrong Livelihood

8.3.3 Apayamukha-6: the Six Causes of Ruin

### **8.4 Macroeconomics According to the Tipitaka**

### **8.5 A Comparison between Secular Economics and Dhammic Economics**

8.5.1 The Practice of Generosity by Billionaires in Today's World

8.5.2 Ariya Wealth Accumulation Is the Strategy for Creating Happiness

8.5.3 Secular Economic System vs. Dhammic Economic System

1) Economic system in the United States

2) Economic system in China

3) Economic system according to the Tipitaka

8.5.4 The World's Food and Energy Crises

## **Concepts**

1. Economics according to the Tipitaka is based on “merit”. The reason is merit is the source of happiness and success. In addition to merit, there must also be a set of supporting principles called “The Basic Principles of Achieving Financial Success”. These include knowing how to accumulate wealth, knowing how to save money, knowing how to create a network of decent individuals, and knowing how to live life correctly.

Whoever accumulates merit and practices at the same time the Basic Principles of Achieving Financial Success will be able to gain material wealth.

2. Economics at the nation state level calls for the government to promote knowledge about merit accumulation as well as knowledge about the Basic Principles of Achieving Financial Success. When individual citizens do well economically, the nation state prospers.

## **Objectives**

1. To enable the student to learn about economics according to the Tipitaka at the individual level and at the nation state level.
2. To enable the student to learn about the weak points of secular economic principles as well as the ways to solve them according to the Tipitaka.

## Chapter 8

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# Economics According to the Tipitaka

### 8.1 An Overview of Economics According to the Tipitaka

Economics according to the Tipitaka is based on “merit”. That is, sound economy must afford societal members the opportunities to make merit and instill in themselves wholesome virtues so that they can live together in peace and prosperity. Merit is the source of happiness and success at the individual and societal levels or at the microeconomic and macroeconomic scales. Economics according to the Tipitaka differs from that in capitalism where private ownership is the focus. In capitalism, emphasis is placed on material development and the economic growth of the nation state is measured by per capita income.

According to Buddhism, there are four principles involved in achieving financial success.

1. Utthanasampada: Knowing how to accumulate wealth
2. Arakkhasampada: Knowing how to save money
3. Kalyanamittata: Knowing how to create a network of decent individuals
4. Samajivita: Knowing how to live life correctly

An individual that accumulates merit and practices the above four principles of achieving financial success will be able to gain material wealth.

At the macroeconomic level, the government must make sure that its citizens are educated in matters concerning merit, how to accumulate merit, and how to practice the four principles of achieving financial success. In this way, the nation state will be able to achieve economic stability and growth.

Merit and its accumulation have to do with spiritual growth whereas the four principles of achieving financial success have to do with the growth of material wealth. It can be said that economics according to the Tipitaka involves economic growth as well as spiritual growth.

## 8.2 Two Kinds of Wealth

Wealth includes valuable things that have a physical form such as money, etc., as well as valuable things that do not have a physical form such as intelligence, intellect, etc. The latter is called Ariya wealth.

In Pali, several words for wealth are used such as Dabba, Dhana, Nidhi, etc. Wealth in Pali means things that give us delight. There are two kinds of wealth according to the Tipitaka: material wealth and Ariya wealth.

### 8.2.1 Material Wealth

Material wealth includes things that are consumed in order to nurture the body. It can be divided into direct wealth and indirect wealth.

Direct wealth includes the four necessities: food, clothing, shelter, and medicine. Indirect wealth includes money. Money is indirect wealth because it cannot be used to nurture the body directly. It has to be spent in exchange of the four necessities.

Material wealth also includes orchards, rice paddies, land, precious gems, means of transportation, pets, livestock, etc.

Material wealth is considered to be “Lokiya” wealth, which means secular wealth.

### 8.2.2 Ariya Wealth

Ariya wealth means sublime wealth. There are seven kinds of Ariya wealth: Saddhadhanam, Saddha, Siladhanam, Sila, Hiridhanam, Hiri, Ottappadhanam, Ottappa, Sutadhanam, Suta, Cagadhanam, Caga, and Pannadhanam.<sup>1</sup>

**1) Saddha:** Saddha means the kind of faith which is inspired by wisdom. Saddha is the opposite of blind faith. Saddha calls for four basic beliefs as follows.

- Believe in the Law of Kamma in that every action has consequences.
- Believe in the fruit of Kamma in that good deeds yield good fruits and evil deeds yield evil fruits.
- Believe in each living being’s unique Kamma in that all the good and evil deeds that a living being has ever performed follow him throughout every existence past, present, and future.
- Believe in the Lord Buddha’s Self Enlightenment and His enlightened knowledge.

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<sup>1</sup> *Samgāti Sutta. Dīgha-nikāya Pāṭikavagga.* Bangkok: Mahamakut Buddhist University Press, vol.16, p.227

- 2) **Sila:** Sila means keeping one's body and word in such a way that one does not harm other living beings. It means treating other living beings with sincerity, honesty, and kindness. Every human being must keep the Five Precepts or Sila-5, for Sila-5 is the human norm.
- 3) **Hiri:** Hiri means being ashamed of Papa or demerit. One feels ashamed of thinking evil thoughts, saying evil words, and performing evil acts. One must be constantly mindful so as not to make any mistake.
- 4) **Ottappa:** Ottappa means being fearful of the fruit of Papa. One is mindful of the fact that evil thoughts, evil words, and evil acts incur retribution, the result of which is pain and suffering now and in the future.
- 5) **Suta:** Suta means diligently seeking out Dhamma lectures so that one can increase one's Dhamma knowledge all the time. One must be learnt in both secular knowledge and Dhammic knowledge.
- 6) **Caga:** Caga means the act of giving up. There are two aspects of Caga.
  - Giving up material things as alms in order to lessen one's miserliness.
  - Giving up anger, vindictiveness, and other destructive emotions in order to keep one's mind clear and bright. One forgives others for their transgression. One does not hold grudges or harbor thoughts of revenge.
- 7) **Panna:** Panna means the knowledge about defilements elimination and the end of suffering.

Ariya wealth is "Lokuttara wealth" in that it is the kind of wealth that is above and beyond the world. In the Dhana Sutta, the Lord Buddha mentions the five kinds of Ariya wealth as follows: Saddha, Sila, Suta, Caga, and Panna.<sup>2</sup> In the Dighajānu Sutta, the Lord Buddha mentions the four kinds of Ariya wealth as follows: Saddha, Sila, Caga, and Panna.<sup>3</sup>

The seven kinds of Ariya wealth can be reduced to five by grouping "Hiri" and "Ottappa" with "Sila". They can also be reduced to four by grouping "Suta" with "Panna". Therefore, the seven, five, or four kinds of Ariya wealth have the same meaning.

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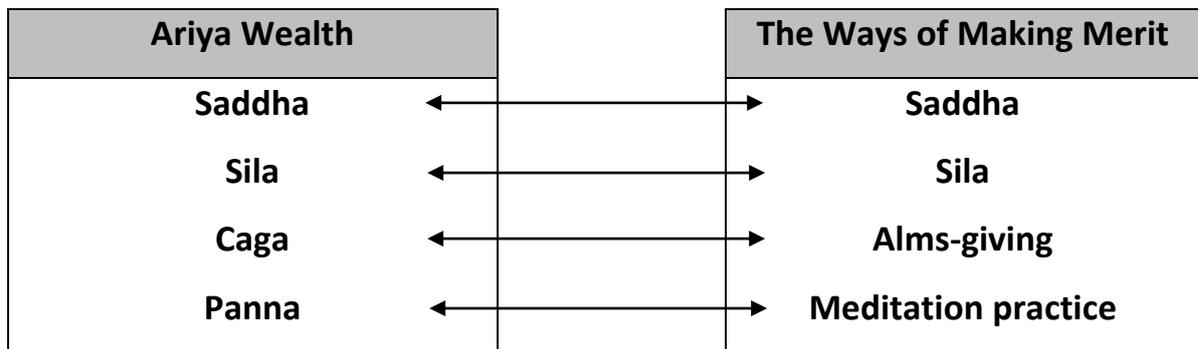
<sup>2</sup> *Dhana Sutta. Aṅguttaranikāya Pañcakanipāta.* Bangkok: Mahamakut Buddhist University Press, vol. 36 , no. 47, p. 107

<sup>3</sup> *Dīghajāṇa Sutta. Aṅguttaranikāya Pañcakanipāta.* Bangkok: Mahamakut Buddhist University Press, vol. 37 , no. 144, p. 560

### 8.2.3 Relationship between Ariya Wealth and the Ways of Making Merit

Most students are familiar with the Three Ways of Making Merit which include alms-giving (Dana), Precepts observation (Sila), and meditation practice (Bhavana). The Ways of Making Merit are the sources of Ariya wealth, which follows us into future existences.

The following diagram illustrates how Ariya wealth and the Ways of Making Merit are related.



Before anyone gives alms, observe the Precepts, and practice meditation, he must first have Saddha or faith. Otherwise, he will not be motivated to make merit at all. Some students may wonder how Panna is related to meditation practice. Based on the definition of Panna, meditation practice is the only method of gaining the knowledge leading to the elimination of defilements.

### 8.2.4 The Importance of Material Wealth and Ariya Wealth

#### 1) The Importance of Material Wealth

A wealthy person may not appreciate the importance of material wealth as much as a poor person. Wealthy people tend to be wasteful while poor people have to be very careful about managing what little they have. According to the UN statistics, about 850 million people in the world do not get enough to eat. About 10 million children younger than 5 die each year; and 5 million of them die because of nutritional deficiency.<sup>4</sup> In the

<sup>4</sup> www.the-thainews.com (2549 B.E.): World Food Day 2549 B.E. (online)

Ina Sutta, the Lord Buddha says that being poor causes suffering because poor people have to borrow money and being in debt causes suffering...<sup>5</sup>

More importantly, poverty can at times force one to commit unwholesome deeds. One may have to transgress the Precepts just to find enough food to subsist on.

Poor people have few opportunities to accumulate merit. When the stomach is growling, it is difficult to think of giving alms, observing the Precepts or practicing meditation. Wealthy people have more opportunities to accumulate merit if they possess Saddha. They can more easily give alms, observe the Precepts, and practice meditation. They do not have to be constantly worrying about where and how to find the basic necessities of life.

## 2) The Importance of Ariya Wealth

Ariya wealth is far more sublime than the best material wealth. Venerable Mahakappina said, “A person possessed of Panna can survive even after he has lost all of his material wealth whereas a wealthy person lacking in Panna cannot. Panna helps one to understand the things that he has heard. Panna is the cause of prosperity, fame, and praise. Anyone possessed of Panna can meet with happiness even when the times are hard.”<sup>6</sup>

Ariya wealth helps lessen one’s suffering. Perfect Ariya wealth can put an end to suffering once and for all. Material wealth can give a person temporary happiness but it can never help him to end suffering. On one occasion, the Lord Buddha was staying at Nigrodharam in the city of Kapilavastu. Many male and female lay devotees of the kingdom of Sakka came to see the Lord Buddha on the Buddhist Holy Day. The Lord Buddha asked them, “Are any of you observing the Eight Precepts on the Buddhist Holy Day?”

The lay devotees answered, “Sometimes we do but sometimes we don’t, Most Exalted One.”

The Lord Buddha said, “You have made a terrible mistake by only observing the Eight Precepts sometimes because death makes life dangerous. If a person earns and saves 100 kahapana or 1,000 kahapana a day, will he have saved up a large pile of money after 100 years?”

The lay devotees answered that he would.

The Lord Buddha said, “Can his material wealth give him nothing but happiness for a night, a day, half a night or half a day?”

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<sup>5</sup> *Īṇa Sutta. Aṅguttaranikāya Chakkanipāta*. Bangkok: Mahamakut Buddhist University Press, vol. 36 , no. 316, p. 664

<sup>6</sup> *Khuddaka-nikāya Theragāthā*. Bangkok: Mahamakut Buddhist University Press, vol. 26 , no. 550-551, p. 435-436

The lay devotees answered, “Not at all, Most Exalted One.”

“Why not?”

“Because sense-desire is changeable, empty, and ruinous, Most Exalted One.”

“My disciples are not reckless. They have devoted their body and mind to practicing my teachings these past ten years. Some of my disciples have attained the Fruit of Sakadagami; some the fruit of Anagami, and some the Fruit of Sotapanna.”

“Most Exalted One, from now on all of us will observe the Eight Precepts on every Buddhist Holy Day.”

Ariya wealth is important because it is the source of true happiness. And true happiness cannot be gained through material wealth.

It is for this reason that the Lord Buddha and His disciples gave up enormous material wealth, as much as 400 million in some cases and 800 million in other cases in order to enter the monkhood. Even wealthy men like Jadila and Jotika, who possessed inexhaustible wealth, left their material wealth behind in order to enter the monkhood to search for Ariya wealth. Venerable Ratthapala’s parents wanted him to leave the monkhood. His father said to him, “Ratthapala, this pile of treasures belongs to your mother. That pile of treasures belongs to me. The other pile over there belongs to your grandfather. All these piles of treasures now belong to you. You can spend all of this wealth as you wish and even make merit with it as you wish. You should now leave the monkhood.”

Venerable Ratthapala answered, “You might as well have someone carry all of these treasures and deposit them in the Ganges because they will bring you physical and mental suffering.”

The sole purpose of material wealth is to facilitate the search for Ariya wealth in that it provides the body what it needs to stay healthy and fit for meditation practice as well as being an instrument for merit-making. Every householder should seek both material wealth and Ariya wealth so that they can know true happiness. Moreover, Ariya wealth helps one to use material wealth in an ethical manner. It helps one to live life correctly.

### **8.3 Microeconomics According to the Tipitaka**

The ultimate aim of economics is the gaining of knowledge that enables the people of the nation state to be well-off. Microeconomics according to the Tipitaka gives us information about the causes of wealth and the causes of scarcity as well as right livelihood and wrong livelihood. Microeconomics according to the Tipitaka also deals with the Causes of Ruin (Apayamukha).

#### **8.3.1 The Causes of Wealth and the Causes of Scarcity**

The student is already familiar with the details of this topic; therefore, only a summary of the information will be given here. There are at least two causes of wealth or the lack thereof: the refined cause and the crude cause. The refined cause of material wealth includes “Punna” or merit. The crude cause includes the effort put into creating financial success. Punna or merit is the primary cause whereas the effort put into creating financial success is the secondary cause.

#### **Punna or Merit**

Punna works to cleanse and purify our mind. Punna is Ariya wealth. It is the source of every human happiness and success. Punna is the foundation of life. It is behind every good thing in life. Punna has the form of a clear and bright sphere located at the center of our body called the seventh base. Punna is not visible to the physical eyes. It can be seen only when one has practiced meditation to the point where one’s mind is as refined as the Punna element itself.

Most people believe that every success in life is created by their own ability and effort because that is all they can see. It is like when one looks at a house, one does not see the foundations upon which the house stands and one sees only the house.

Whether or not we can see them, every building stands on its foundations. Without them, the building cannot stand. Likewise, without merit or when merit is depleted, life cannot be sustained.

Punna can be compared to the foundations of life. The more merit one has, the more prosperous one’s life will be. By contrast, the less merit one has, the more difficult one’s life will be.

There are two kinds of Punna: Past Punna and new Punna. Past Punna is the merit accumulated in one's previous existences. New Punna is the merit accumulated in the current existence.

There are at least 3 ways of making merit: alms-giving, Precepts observation, and meditation practice. The kind of merit that gives rise to material wealth is the merit earned primarily through alms-giving. Therefore, whoever had accumulated a large amount of merit through alms-giving in his previous existences will be wealthy at the level of the country's richest person or even the world's richest person. By contrast, whoever had not accumulated merit or had accumulated a very small amount of merit will be poor in this existence.

The working mechanism of Punna or merit is as follows. Past Punna will yield its fruit first and fully like a mature fruit tree that is ready to yield many fruits. New Punna can be compared to a sapling and it will require time to grow before it can yield any fruits. On average, the fruit sent forth by one's past Punna in the current existence is about 70 - 80% and the fruit sent forth by one's new Punna in the current existence is about 20 – 30%.

It is primarily the fruit of past Punna that allows one to become a leading billionaire. Most of the world's billionaires today are not Buddhists. They have no understanding of Punna or merit and they do not accumulate merit under Buddhism. They do however give to humanitarian causes. And yet, they have become fabulously wealthy in the current existence as a result of their past Punna.

### **The Effort Put into Creating Financial Success**

In Buddhism, the term used for creating financial success is "Ditthadhammikattha", which means current benefit. Buddhists know it as the four principles of achieving financial success.

- 1. Utthanasampada:** Knowing how to accumulate wealth
- 2. Arakkhasampada:** Knowing how to save money
- 3. Kalayanamittata:** Knowing how to create a network of decent individuals
- 4. Samajivita:** Knowing how to live life correctly

### 1) Utthanasampada

Utthanasampada means effort; that is, the effort put into accumulating wealth. There are two parts to it: diligence and cleverness.

- (1) **Diligence:** A person wishing to accumulate wealth must be hard-working.
- (2) **Cleverness:** A person can meet with success when he is clever in two ways: he is clever with work and he is clever with matters concerning morality. A clever person here means someone who has put in the effort to learn about morality as well as how to achieve success in his line of work.

It is difficult for a hard-working but stupid person to create financial success because he is likely to make too many mistakes. A clever person lacking in knowledge about morality is likely to choose the wrong kind of work or wrong livelihood. Therefore, to create financial success, one must work hard and put in the effort to learn about morality as well as how to achieve success in his line of work.

### 2) Arakkhasampada

Arakkhasampada means protection; that is, protecting one's wealth. One knows to accumulate and save money because one understands its value. Next, one knows to protect one's wealth from two main kinds of danger:

- (1) danger arisen from people.
- (2) danger arisen from natural disasters.

Protecting one's wealth also means taking care of one's possessions so that they can last a long time. When something is lost, one takes the time to find it. When something is broken, one takes the time to fix it or have it fixed. Protecting one's wealth is just as important as creating one's wealth.

### 3) Kalyanamittata

Kalyanamittata means virtuous friends; that is, creating a network of decent people. If we wish to live a good life, we must first cultivate decency within our self and the next step is to create a network of decent people.

There are three steps to creating a network of decent people.

*Step 1:* Knowing one's place – It means that one knows to fulfill one's role as a father, a friend, etc.

*Step 2:* Learning from virtuous people – It means that one does not only observe a good and decent person's virtues but also learns to cultivate these virtues himself.

*Step 3:* Passing on one's knowledge and virtues to other people.

When we are endeavoring to create financial success, it is important to choose to work with decent individuals. Decent colleagues or business partners can help each other grow and prosper. It is important that one enlarges one's circle of decent people for the sake of one's prosperity, safety, and spiritual growth.

If one does not choose well one's colleagues or business partners, it is possible that one may be taken advantage of, lied to, or cheated and it may be impossible to achieve financial success altogether.

#### **4) Samajivita**

Samajivita means knowing how to live life correctly. Here, it means knowing how to spend money. To practice Samajivita means to earn right livelihood. He must be neither a spendthrift nor a miser. He makes sure that his expenses do not exceed his earnings.

#### **The Primary and Secondary Causes of Financial Success**

Wealth or the lack of it depends primarily on Punna or merit whereas the effort put into creating financial success is a secondary factor. People may put in a similar amount of effort into creating financial success. And yet, some can achieve great financial success. Some can achieve moderate financial success. And others cannot achieve much financial success at all. This happens because the level of financial success of each individual is determined by the level of his accumulated merit.

Many people these days work very long and very hard each day and for years. And yet, they do not seem to be able to make headway financially because they possess a low level of accumulated merit.

At the same time, other people seem to have the Midas touch. The harder they work, the wealthier they become. Some people possess so much accumulated merit that they do not ever have to work for a living. During the Lord Buddha's time, there were several such individuals. These included Jotika, Mendaka, Jadila, etc. These billionaires possessed the kind of material wealth that could replenish itself. In other words, it could not be exhausted even after they had given it away to all the people in the world.

Some people were born wealthy because their parents had already accumulated a tremendous amount of wealth for them. Some people were born to parents that beg for a living. They are poor as soon as they are born. These drastically different scenarios are caused by the differences in each person's level of accumulated merit.

Nonetheless, the four principles of creating financial success are still important. A person born into a wealthy family will become wealthier if he applies these four principles in his life. Even if he does not accumulate more wealth but if he knows to save, be surrounded by decent people, and live life correctly, he will at least have enough to live on for a very long time.

But if a person that has inherited a large amount of wealth chooses to be a spendthrift, have fools for friends, and refuse to accumulate wealth, will do poorly as he becomes older just like one wealthy man's son during the Lord Buddha's time.

This man lived in the city of Benares, and he inherited 800 million from his parents. In the same city, a woman inherited 800 million from her parents. The man and the woman eventually married and in times both sets of parents passed away leaving their children with a total wealth of 1,600 million.

This man normally went to see the king three times a day. Some scoundrels in the city thought if they could turn the man into a drinker, it would make their lives a lot easier. One day these scoundrels were watching this man as he was returning from the palace. As the man came closer, they raised their drinks and wished the man long life.

The man asked his servant what it was that the men were drinking. The servant told him that it was a kind of drink. The man wanted to know if it tasted good. The servant told his master that no other drinks could be compared to it. The man subsequently told his servant to fetch him a drink.

It did not take long before the man became a drinker. Ever since he started drinking, he became a spendthrift. Soon enough he managed to lose all of his and his wife's inheritances. He had to start selling his various properties, his vehicles, everything in his house as well as his house.

Eventually, he and his wife had no place to live, no money to live on, and both of them had to beg for a living. One day, the Lord Buddha saw this man near the refectory's door waiting from leftovers from the monks and novices and the Lord Buddha smiled. Venerable Ananda Thera asked the Lord Buddha the reason for His smile. The Lord Buddha said, Ananda, look at that man! He and his wife had squandered all of their inheritances and now they have to beg for a living.

If this man did not lay waste to his wealth but began to accumulate more of it when he was young, he would have become the city's top-class billionaire. And if he entered the monkhood, he would have attained Arahatsip. His wife would have attained the Fruit of Anagami. If he did not lay waste to his wealth and began to accumulate more of it when he was in his middle years, he would have become a second class billionaire. And if he entered the monkhood, he would have attained the Fruit of Anagami while his wife would have attained the Fruit of Sakadagami. If he did not lay waste to his wealth but began to accumulate more of it in his late years, he would have become a third-class billionaire. And if he entered the monkhood, he would have attained the Fruit of Sakadagami while his wife would have attained the Fruit of Sotapanna. But now, this man has no hope of achieving financial success or the Fruits of Monkhood. Therefore, he is like a crane standing in dry mud.

### **8.3.2 Wrong Livelihood**

The Lord Buddha teaches us to earn a living through means that do not violate morality and to stay away from immoral people. Wrong livelihood is harmful to the individual that practices it and society as a whole.

The Lord Buddha teaches that there are five kinds of wrong livelihood: Sathavanijja, Sattavanijja, Mansavanijja, Majjavanijja, and Visavanijja. These must be avoided at all costs.

- 1) Sathavanijja: It involves the production and sales of weapons.
- 2) Sattavanijja: It involves the sales of human beings as in the case of slaves and prostitutes.
- 3) Mansavanijja: It involves keeping livestock to be used as food, operating a slaughterhouse, animals butchering for the purpose of selling the butchered meat.
- 4) Majjavanijja: It involves the production and sales of alcoholic beverages.
- 5) Visavanijja: It involves the production and sales of poisons. Today, poisons also include addictive drugs such as heroin.

These kinds of wrong livelihood are harmful to both the business owner and the consumers in this and future existences. It causes them to spend the hereafter in the Hell Realm.

### 8.3.3 Apayamukkha: The Causes of Ruin

In the Singala Sutta, the Lord Buddha teaches us about the Six Causes of Ruin for both material wealth and Ariya wealth. These include drinking alcoholic beverages, going out and carousing at night, frequenting shows, habitual gambling, keeping the company of fools, and laziness.<sup>7</sup>

**1) Drinking Alcoholic Beverages:** Alcoholic beverages here include beer, wine, and spirits as well as such intoxicants as cigarettes, fermented beverages. The consumption of alcoholic beverages causes six kinds of problems: the loss of money, quarrels and fights, diseases, the loss of reputation, indecent exposure, and reduced brain capacity.

In 2550 B.E., Thai households spent 38,747 million baht on alcoholic beverages, 6% higher than in 2549 B.E. and spent 5,266 million baht on cigarettes.<sup>8</sup> The loss incurred by alcohol drinking as a result of illnesses, medical treatments, lost time at work, deaths and accidents is billions of baht per year. Such a huge amount of money if spent on developing people and society instead would have been far more fruitful.

**2) Going Out and Carousing at Night:** The Lord Buddha teaches that going out and carousing at night causes six kinds of problems: loss of protection for oneself, loss of protection for one's wife and children, loss of protection for one's wealth, arousing suspicion, being a subject of false rumors, and experiencing many difficulties.

**3) Frequenting Shows:** The Lord Buddha teaches that frequenting shows causes six kinds of problems - spending a lot of time to see where there is dancing, where there is singing, where there is choral music, where there is story-telling, where there is cymbal playing, and where there is tam-tams. When one's time is wasted in these manners, one can hardly find time to earn money or guard one's house.

**4) Indulging in Gambling:** The Lord Buddha teaches that indulging in gambling causes six kinds of problems - a winner begets hatred, a loser acutely feels his loss, the loss of money, a gambler's word carries no weight, a gambler is scorned by his friends, and a gambler is not marriage material. If the gambler is a man, no parents will allow their daughter to marry him. If the gambler is a woman, no man will marry her.

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<sup>7</sup> *Singalaka Sutta Dīgha-nikāya Pāṭikavagga*. Bangkok: Mahamakut Buddhist University Press, vol. 16, no. 178, p. 80

<sup>8</sup> Daily News (2550 B.E.): "Poor Folks Ought not Overspend" (online)

One of the popular forms of gambling in Thailand is illegal lottery. Research by Sangsit et al. in 2544 B.E. showed that 23.7 million people or 51% of the Thai population older than 15 years old played the underground lottery regularly. The money involved was no less than 542,000 million baht. Out of this amount, 30% or 162,000 million baht belonged to the lottery hosts. More than 90% of the players believe that they will win even though the chance of winning is very low.<sup>9</sup>

Another widespread form of gambling is “World Soccer Betting”. According to the University of the Thai Chamber Commerce survey in 2549 B.E., the total amount of money involved in world soccer betting in Thailand was 35,500 million baht. Out of this amount, 19,500 million baht came from bets. They also found that people with an income of less than 5,000 baht per month spent more than their income in world soccer betting.<sup>10</sup>

**5) Keeping the company of fools:** The Lord Buddha teaches that keeping the company of fools causes six problems – running the risk of becoming a gambler, running the risk of becoming a womanizer, running the risk of becoming a drinker, running the risk of becoming involved in selling counterfeit products, running the risk of becoming a con man, and running the risk of becoming a gangster.

Today, the term “company” extends to the media as well: television, radio, the Internet, newspapers, etc. These media allow people to stay in touch with other people as well as a myriad of national and global events. At the same time, they have also been used to spread indecent things and some media are difficult to control.

During the Soccer World Cup 2006, Suan Dusit Rajabhat University held a focus group discussion on the topic “Is it really difficult to solve the problem of habitual betting on world soccer?” The discussion was participated by 40 people who habitually bet on world soccer. It was found that they were initiated into the habit primarily by a friend or someone close to them. These gamblers were encouraged to indulge in the habit by such media as the sports section of the newspaper, magazines, the Internet, television, and radio.

**6) Laziness:** The Lord Buddha teaches that there are six excuses people use for being lazy – it is too cold to work; it is too hot to work, it is too late to work, it is too early to work, one is too hungry to work, and one is too full to work. Laziness causes procrastination and the lack of material wealth.

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<sup>9</sup> Thai Rath (2549 B.E.): “Research shows Thais addicted to legal and illegal lottery” (online)

<sup>10</sup> Manager (2549 B.E.): “Money spent on world soccer betting more than 19,500 million baht” (online)

## 8.4 Macroeconomics According to the Tipitaka

Macroeconomics is the field of economics that studies the behavior of the aggregate economy. This includes national, regional, and global economies. The government is directly responsible for managing the nation state's economy. The Tipitaka contains information about the management of national, regional, and global economies by Universal Monarchs, kings, and groups of rulers.

It was mentioned earlier in microeconomics that individual wealth is gained by the individual's past accumulated merit as well as the practice of the four principles of creating financial success - knowing how to accumulate wealth, knowing how to save money, knowing how to create a network of decent individuals, and knowing how to live life correctly.

There are two factors involved in macroeconomics – The gross merit level of all the people in the country, and the gross effort put into creating financial success by the entire population. A country whose gross merit level and gross effort put into creating financial success are high, that country will be a leading world economy. By contrast, a country whose gross merit level and gross effort put into creating financial success are low, that country will not do well economically.

Nonetheless, the government of each country plays a very important role in managing the country's economy and should do so by:

- 1) Encouraging its people not only to understand the importance of merit but also the importance of accumulating a great deal of merit.
- 2) Encouraging its people to achieve financial success by practicing the four principles of creating financial success as well as encouraging them to earn right livelihood. At the same time, the government must encourage its people to stay away from the causes of ruin or Apayamukha.

Any country having the above two factors in place is certain to achieve lasting financial success.

In chapter 6, the governing style of King Mahavijitaraj was already presented. Here, only his economic policy will be mentioned along with the management of economy during the Lord Buddha's time.

## **King Mahavijitaraj's Economic Policy**

We learn from the Kutadanta Sutta that King Mahavijitaraj had gone to war to extend his territory, and one impact of the prolonged war was an economic depression in his kingdom. The situation became so critical that many destitute folks resorted to thievery and other crimes. As the king's advisor, our Bodhisatta asked the king to solve the crime problems by stimulating the economy. The three low income groups who were hard-working needed to be helped by:

- 1) Increasing rice grains for planting and consumption by hard-working farmers.
- 2) Providing funds for investment to hard-working merchants on certain occasions.
- 3) Giving an allowance and a pay to hard-working public servants on certain occasions.

This method of helping the right people motivated them to be even harder-working. This economic management style corresponds to the first principle involved in creating financial success, Utathanasampada. Moreover, the financial success created by these three groups had a positive effect on other parts of society. The state stood to gain from increasing taxes. When managed correctly, the monetary gain derived from taxes can outweigh the initial expenses in the form of financial aid. Increasing state income allows the state to help other disadvantaged citizens. This kind of financial incentive serves to affirm to the people that diligence pays. Some lazy individuals may want to become diligent in order to receive help in creating their financial success. Soon enough the state will be full of people putting in the effort to create their own financial success. This corresponds to the second principle, Kalyanamittata.

The Bodhisatta advisor also asked the king to encourage his subjects to practice the Tenfold Wholesome Course of Action in order to gain merit or Ariya wealth. Morality practice is the source of material wealth as in the Pali saying "Silenabhogasampada". Diligence and morality are the attributes of a decent person. By promoting the economy and morality, King Mahavijitaraj was essentially developing his subjects economically and spiritually.

King Mahavijitaraj also decreased the gap between the rich and the poor by holding a great alms-giving event and presiding over it. Moreover, he encouraged the four groups of the privileged class to give alms as well. King Mahavijitaraj's overall economic policy allowed his kingdom to become stable and strong, the people to be well-off, and the people of different classes to live together harmoniously.

The merit earned from alms-giving causes wealthy people to become even wealthier. Poor people also want to emulate the rich by giving alms. Soon enough the merit accumulated by their alms-giving will help them to become more and more successful financially.

During the Lord Buddha's time, several desperately poor individuals came to realize that they were born poor in this lifetime because they had not accumulated merit by giving alms in their previous lives. As a result, they were motivated to work hard so that they could give alms and the merit earned did help them to fare better financially. As a result, some once desperately poor individuals became millionaires as in the case of Punna. He was once a servant in the house of the millionaire Sumana. After he had given alms to Venerable Sariputra Thera, the earned merit yielded immediate fruit causing him to become a millionaire instantly.

Managing macroeconomics according to the Tipitaka not only encourages wealthy people to help the poor by giving them alms but also helps them to give to the field of merit by supporting Buddhism. It is one of the Buddhist practices that wealthy people build temples where they and other people in the community can go to earn merit. Temple construction helps the economy because it provides employment for people as well as stimulating the economy by the purchases of materials and equipment, etc. The larger the temple, the better the economy is stimulated. A case in point was when the millionaire Anathapindika had the great Jetavanna Temple built.

Jetavanna was the center of Buddhism during the Lord Buddha's time. It could accommodate several thousand monks at a time. The millionaire Anathapindika spent 180 million for the land, another 180 million for all of the buildings inside the temple, and an additional 180 million for the celebrations of the completion of the temple. The construction of this great temple did a lot to stimulate the city's economy at the time.<sup>11</sup>

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<sup>11</sup> *Dhammapadaṭṭhakāthā Aṭṭhakathā-khuddaka-nikāya Gāthā-Dhammapada.* Bangkok: Mahamakut Buddhist University Press, vol. 41 , p. 107

### Names of the Temples Built during the Lord Buddha's Time:

No.	Temple/Monastery	City	Sponsored By
1	Veluvanna	Rajagarh	King Bimbisara
2	Jetavanna	Savatthi	Anathapindika
3	Pubbaram	Savatthi	Visakha
4	Nigrodharam	Kapilavastu	Sakya Royalties
5	Ghositaram	Kosambi	Kosita
6	Kukakutaram	Kosambi	Kukakuta
7	Pavarikambavanna	Kosambi	Pavarika
8	Jivakambavanna	Rajagarh	Jivaka Komarabhacca
9	Ambatakavanna	Macchikasanda	Jitta
10	Ambavanna	Vesali	Ambapali

King Mahavijitaraj's economic management and the management of economy of different city-states during the Lord Buddha's time were based on two factors. The first has to do with educating the people about the importance of merit and the need to accumulate as much merit as possible. The second has to do with the four principles of creating financial success.

### 8.5 A Comparison between Secular Economics and Dhammic Economics

The comparison will be made for both microeconomics and macroeconomics. Two points will be made for microeconomics: Today's billionaires' practice of generosity and the strategy for creating happiness. Two points will also be made for macroeconomics: The secular economic system vs. the Dhammic economic system, and the world's food and energy crises.

### 8.5.1 Today's Billionaires' Practice of Generosity

It was mentioned in chapter 5 that habit is a thing that you do often and almost without thinking, especially something that is hard to stop doing. Habits, be they good or bad, do follow us across lifetimes. Another relevant term is “innate character”. It means inborn character.

Innate character plays an important role in giving today's billionaires the penchant for practicing generosity. Tremendous wealth is the fruit of the merit earned from having given generously to the merit-field in one's previous existences. We may not be able to say exactly what these billionaires' past lives were like but we can gain some knowledge about them from the amount of their wealth and their practice of generosity in the current existence.

Bill Gates, the world's richest man for 13 consecutive years from 2538 to 2550 B.E. made an announcement that he was donating 95% of his net worth to his charity foundation. He was leaving his three children merely 5% of his wealth.<sup>12</sup> As of 2551 B.E., Bill Gates had a net worth of around 58,000 million dollars (around 1.8 trillion baht). It means that he was donating 55,100 million dollars or around 1.7 trillion baht to his charity foundation.

Someone asked Bill Gates why he did not leave all of his wealth to his three children. His answer was that such a huge amount of money left to his children could not benefit them or society. It is his belief that he must give back to society.

Another generous billionaire is Warren Buffet. He announced in June 2549 B.E. that he was donating around 37,000 million dollars (1.158 trillion baht) or 85% of his net worth to five different charities.<sup>13</sup> Soon afterward, he donated 31,000 million dollars to the Bill and Melinda Gates Foundation.

There are many other generous billionaires in the United States: Gordon and Betty Moor, the founders of Intel, Eli and Edythe Broad, the founders of SunAmerica, James and Virginia Stowers, the founders of American Century, Michael and Susan Dell, the founders of Dell Computers, the Walton Family, the founders of Wal-Mart, Ted Turner, the founders of CNN, Jeffrey Skoll, the first president of eBay, John R. Alm of Coca Cola Enterprises, Inc., etc.

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<sup>12</sup> Matichon Weekend (2549 B.E.): “The world's richest man: his thoughts and lifestyle” (online)

<sup>13</sup> Thai Rath (2549 B.E.): “American billionaire gives away the majority of his wealth” (online)

In fact, billionaires all over the world today are forming their own charity foundation. In Germany, the number of charity foundations has increased from 4,000 in 2540 B.E. to 13,000 in 2549 B.E. According to a leading banking institution in Switzerland, 25% of their billionaire clients are donating part of their wealth to charity while 40% of them are considering doing it and 15% are already making plans.<sup>14</sup>

The Economist issue of February 25, 2549 B.E. says that generous billionaires want to give something back to society once they have met with their exceptional financial success. Some donate money to their alma mater. Some donate money to support a hospital or a particular medical research program concerning a disease that a loved one has suffered from. Some donate money to help a poor country that they have visited. Tax reduction is not as important a reason.<sup>15</sup>

The fact that these billionaires choose to give back to society is but a reflection of the innate character cultivated in their previous existences. It is for the very reason that they had given generously to the merit-field in their previous existences that causes them to be fabulously wealthy in this existence.

## **8.5.2 The Strategy for Creating Happiness**

Economics is directly linked to human happiness and unhappiness because economics involves people's livelihood and their standard of living. Human happiness in the capitalist economy is defined as:

- 1) Consumerism is the only way to create happiness. One works to earn money so that one can pay for the things one wants.
- 2) One needs only to be concerned about what one wants. One can increase one's life satisfaction through one's consumption. One does not have to be concerned about other people's welfare.
- 3) One must increase one's consumption in order to increase one's happiness. The sole aim of consumption is to create human happiness.
- 4) Society will improve as everyone in society consumes more. Since the term "social welfare" is defined as the gross satisfaction of each individual in society, therefore, the goal of society is to increase gross consumption.

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<sup>14</sup> Prajachart Turakij (2549 B.E.): "Capitalists-Saints revolutionize the world of giving" (online)

<sup>15</sup> Prajachart Turakij (2549 B.E.): "Capitalists-Saints revolutionize the world of giving" (online)

During the past two decades, attempts have been made to answer the question if happiness can really be increased through increasing purchasing power. Studies carried out in the United States and elsewhere have found that money can only buy a small amount of happiness, and with time more money is needed in order to buy the same amount of happiness.

Another interesting study has to do with the relationship between an increase in individual income and life satisfaction of Japanese people from 1958 to 1991 (2501 – 2534 B.E.). The result showed that in 33 years, the income per capita in Japan had risen 16-fold but the Japanese have not at all found an increase in life satisfaction over this period. In the United States, the number of American households having air conditioners has increased 5-fold, the number of American households having a dishwasher has increased 7-fold, the number of American household having more than one car has increased 3-fold but Americans feel they are getting significantly poorer than two decades ago.<sup>16</sup>

The above data shows that the belief about money being able to buy happiness or consumerism being the source of happiness is not always true. In fact, more and more people are looking for happiness in ways that have nothing to do with consumerism.<sup>17</sup> Adam Smith, the father of modern day economics said to the effect that however selfish human beings may be, there are certain principles operating in human nature that make them care about the fate of other people and deem other people's happiness equally important.

Recently, British Columbia University and Harvard Business School conducted a survey to find out if people can derive happiness from giving money to other people. They surveyed 630 Americans and found that these Americans felt significantly happier when they gave others money. Professor Elizabeth Dunn said to the effect that it is not important how much money one earns but one feels happier when one has the opportunity to help others out financially. In other words, the money they gave to other people makes them feel happier than if the money had been spent on themselves.<sup>18</sup> Therefore, giving is an activity that increases the happiness of both the giver and the receiver.<sup>19</sup>

It can be seen that alms-giving or the practice of generosity is the source of Ariya wealth is still true even after more than 2,500 years. Whoever practices generosity reaps the fruit of the practice regardless of the time and social system involved. If alms-giving alone can cause the people living in the capitalist economy to experience happiness, how much more happiness can be gained when one practices all seven principles of Ariya wealth.

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<sup>16</sup> Decharut Sukkamnerd (2550 B.E.) "The Economics of Happiness", p. 79

<sup>17</sup> Ibid, p. 91

<sup>18</sup> Thai Rath (2551 B.E.): "Happiness is derived from alms-giving" (online)

<sup>19</sup> Decharut Sukkamnerd (2550 B.E.) "The Economics of Happiness", p. 96

### 8.5.3 Secular Economy System vs. Dhammic Economy System

Here, a comparative study will be made of the American economy system and the Chinese economy system vs. the Dhammic economy system. These two economy systems are chosen because they represent the largest and the fourth largest economy in the world. The Chinese economy has been experiencing an astonishing growth.

#### 1) The American Economy System

Even though the American economy is slowing down today but its Gross Domestic Product<sup>20</sup> or GDP is still the highest in the world and has been so for a very long time. After WWII the United States became a superpower economically, militarily, scientifically, and technologically. At the time, the U.S. GDP was almost half of the world GDP.

The American economy system is based on capitalism and the heart of its economic growth is based upon building the people's confidence in the country's economy as well as promoting consumerism. When people are confident about their country's economy and politics, they feel they can spend money more freely. Producers of goods and services do very well and they increase their investment by enlarging their businesses. As the business expands, more and more people are employed. When people earn a larger income, they spend more of their income as well and the result is a high GDP.

Consumerism is an outstanding American practice so much so that it is said to be a "high mass consumption society". However, their consumption is not based on good judgment. Whenever the economy slows down, the government will do anything to get the people to resume consumption. In February of 2551 B.E., the economic slowdown forced employers to cut a total of 63,000 jobs. As a result, President George W. Bush created a budget to stimulate the economy and consumption to the tune of 150,000 million dollars.<sup>21</sup>

However, consumerism has caused the United States to experience a budget deficit<sup>22</sup> for the past 30 – 40 years<sup>23</sup> because many of the goods and services consumed by Americans have to be imported. In 2549 B.E. the U.S. budget deficit was as high as 0.811 trillion dollars. Today, the United States is heavily in debt and its biggest creditor is Japan. The United States owes Japan 582.2 billion dollars.<sup>24</sup>

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<sup>20</sup> Gross Domestic Product (GDP) is measured by a country's expenses and income.

<sup>21</sup> Manager (2551 B.E.): "Bush spends more than \$150,000 million to stimulate the economy"

<sup>22</sup> A budget deficit occurs when the country over-expends in that imports of goods and services outweighs exports of goods and services.

<sup>23</sup> Veerapong Ramangkoon (2549 B.E.) "Budget deficit and the value of the dollar" (online)

<sup>24</sup> Kamon Kamontrakoon (2550 B.E.) "The fall of dollar and the Bank of Thailand" (online)

## 2) The Chinese Economy System

As of 2551 B.E., the Chinese economy is the fourth largest economy in the world after Germany, Japan, and the United States. It is expected to become the third largest economy in 2551 B.E. and may become the second largest economy in the world in the next few years. As of April 2551 B.E., China possesses the world's largest international reserves amounting to 1.76 trillion dollars.<sup>25</sup> This amount of international reserves is larger than the reserves of Japan, Taiwan, South Korea, and Hong Kong combined.<sup>26</sup> One is likely to wonder how the Chinese economy can grow so quickly when the country was still very poor and very much behind other countries 30 – 40 years ago.

The turning point of Chinese economy occurred in 1978 when Deng Xiaoping decided to lead the Chinese economic reform through a synthesis of theories that became known as the "socialist market economy". Deng opened China to foreign investment, the global market and limited private competition. He is generally credited with developing China into one of the fastest growing economies in the world for more than 30 years and raising the standard of living of hundreds of millions of Chinese.<sup>27</sup>

The success of China's economic policies and the manner of their implementation has resulted in immense changes in Chinese society. Together with large scale government planning programs alongside market characteristics has reduced poverty, while incomes and income inequality increased.<sup>28</sup> The driving force of China's fast economic growth is four-fold: A clear and well-thought-out strategy, building up people's confidence, promoting investment and encouraging thrift.

China's history dated back thousands of years and it had been involved in many wars. Some were fought among themselves. Others were fought with other countries. It is for this reason that China is a war veteran and an expert in the art and strategy of war. History teaches the Chinese to be careful and thorough and to proceed in a stepwise fashion. To encourage people to invest and spend, confidence in the economy and politics must first be built. It is for the reason that Chinese people are thrifty that they put a lot of money in their savings accounts. These funds can then be loaned out to business owners. Surplus manufactured goods are exported resulting in a trade surplus for the country.

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<sup>25</sup> International reserves consists of monetary gold, special drawing rights (SDRs), reserve positions in the Fund, and foreign exchange assets.

<sup>26</sup> <http://news.mcot.net> and Moneyline News (2550 B.E.): "China has the biggest trade surplus in 2550 B.E."

<sup>27</sup> Wikipedia: "Deng Xiaoping"

<sup>28</sup> Wikipedia: "Chinese Economic Reform"

In 2550 B.E., China's trade surplus is at its highest and amounts to 262,200 million dollars.<sup>29</sup>

Nonetheless, China still faces many problems in terms of the distribution of wealth, national security, the environment, the pressure brought about by a big trade surplus, etc.

### **3) The Dhammic Economy System**

The Economy system according to the Tipitaka is based on "Punna" or merit. The Lord Buddha teaches that merit is the source of human happiness and success. Wealth and poverty are determined by the level of one's merit. A wealthy nation means that the overall level of merit of its people is high. A poor nation means that the overall level of merit of its people is low.

Besides "Punna" or merit, one must also follow the four principles of creating financial success – knowing how to accumulate material wealth, knowing how to save money, knowing how to create a network of decent individuals, and knowing how to live life correctly.

Whoever employs these two factors to achieve financial success does not keep extra money idle but spends it on merit-making by giving to the needy, supporting Buddhism, building facilities for public use such as a temple, a hospital, a bridge, etc. Such are the ways to stimulate economy according to Buddhism. Money is being spent to benefit the self and society as a whole. This practice is in contrast to consumerism. Consumerism can in fact stimulate the economy but the consequences are short- and long-term debts.

Merit-making teaches one to care about the welfare of other people and society as a whole. In a giving society, there are fewer incidents of exploitation and deception. People who are generous tend to be kind-hearted. The practice of generosity also allows wealth to be more evenly distributed so that the gap between the rich and the poor becomes narrower, and the growth of economy can be sustained. A strong economy brings about people's confidence. More importantly, merit and morality are the best things for people's confidence. Whatever situation a country may find itself in, if its people believe in merit and morality, the country will be able to weather the situation and improve upon it in good time.

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<sup>29</sup> Moneyline News (2550 B.E.): "China has the biggest trade surplus in 2550 B.E."

#### **8.5.4 The World's Food and Energy Crises**

The food and energy crises are urgent problems that each government is looking to resolve. Oil price has continued to increase. In 2540 B.E. the retail price for benzene 95 in Thailand was about 10 baht/liter.<sup>30</sup> As of May 31, 2551 B.E. it is 40.09 baht/liter.<sup>31</sup>

Food prices have also continued to increase. The World Bank estimated that food prices have increased two-fold in the past three years. According to the UN Secretariat, the increase in food prices causes 100 million people to become poor such that they now need financial aid.

The increase in food and oil prices has to do with supply and demand in that if the demand for an item outweighs its supply, the price of that item will increase.

#### **Reasons for the High Demand**

The main reasons for high food and oil demands are the squandering of resources, increased world population, economic expansion of each country, the hoarding of oil by various hedge funds or certain groups of investors, etc. Increase in oil consumption by China increases oil demand by 40%.

The hoarding of oil by various hedge funds is a major problem. In the United States, there are about 8,000 hedge funds with a total net asset of 1.2 trillion dollars.<sup>32</sup> A former executive of Bangchak said that in 2549 B.E., the various hedge funds hoarded altogether one billion barrels of crude oil.<sup>33</sup> This is the amount of oil imported by Thailand in three years.<sup>34</sup> The hoarding of oil decreases oil supply in the market, thus driving its price up. Once the price goes up to a certain level, the various hedge funds dump its hoarded oil into the market and sell it at a profit.

#### **Reasons for the Low Supply**

There are two main reasons for the low oil supply: a decrease in the number of oil reserves and the damage wrought on oil reserves. This includes an attack on an oil reserve and/or an oil pipeline, pirates taking possession of oil tankers, wars in oil-producing countries, etc.

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<sup>30</sup> National Energy Policy Office (2540 B.E.): "The situation of oil prices" (online)

<sup>31</sup> PTT Public Company Limited (2551): "The retail gasoline prices in Bangkok Cosmopolitan area" (online)

<sup>32</sup> Bangkok Business (2550 B.E.): "One trillion dollars profit made by hedge funds in '49 B.E." (online)

<sup>33</sup> Manoon Siriwan (2550 B.E.): "Hedge funds hoard oil to fix oil prices" (online)

<sup>34</sup> In February 2551 B.E. Thailand imported 908,000 barrels of crude oil daily (Moneyline News)

It has been estimated that the world's oil reserves will be exhausted within 40 years. There are indeed new oil reserves but the process needed to recover the oil is difficult and very costly. Nearly the entire earth surface has been surveyed for oil reserves but new ones are becoming fewer and fewer.<sup>35</sup> It is therefore necessary to develop alternative sources of energy.

There are two main reasons for the low food supply: hostile weather conditions and poor land conditions for agriculture and the increase use of land for growing plants that can be used as renewable sources of energy.

Hostile weather conditions include drought, floods, mud slides, etc. These pose a real problem in agriculture. Poor land conditions include deserts, lowlands, etc. Large patches of arable land are scattered all throughout the earth surface.

Recently, the UN issued a warning that deserts are expanding every minute and this situation will pose a problem for around two billion people. Over the next decade, around 50 million people all over the world will need to relocate in order to find land more suitable for agriculture.<sup>36</sup> The latter problem is due to poorer soil quality caused by over-farming, destruction of forests, over-grazing by farm animals, etc.

### **Food and Energy Crises According to the Agganna Sutta**

Food and energy crises are not new to humanity but they have occurred countless times throughout the course of human history. According to the Agganna Sutta, humans' lack of morality brought about the deterioration of the environment and food scarcity. This lack of morality was brought about by keeping the company of fools as well as the power of defilements in the forms of arrogance, contempt, greed, etc. As a result, the quality of food had gone down from ambrosial soil, soil pieces, soil bunches to wheat grains.

Greed caused certain individuals to hoard the wheat grains and many followed their bad example. There was not enough time for wheat to regrow and in certain places, it stopped regrowing altogether. Wheat that used to grow everywhere is now only growing in certain areas. The quality of wheat becomes poorer as the environment is further degraded.

Hedge funds and greedy traders that hoard goods today are not unlike the greedy people that hoarded wheat in the Agganna Sutta. Initially, there were few hedge funds but more and more people entered the business until there are now more than 8,000 hedge funds in the United States and these are wreaking havoc economically worldwide.

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<sup>35</sup> Vitayakorn Chiangkoon (2550 B.E.): "Solutions to high oil prices" (online)

<sup>36</sup> Thai Rath (2550 B.E.): "Deserts are expanding at a critical rate" (online)

## **Solving the World's Food and Energy Crises**

To solve these crises, we must follow the Lord Buddha's Teachings by reviving morality. It is the only way that the environment can be improved.

Economic development alone is not enough. Many rich people still feel they do not have enough and continue to exploit people and situations for their own gains. They are following the dictate of their defilements, and only the revival of morality can lessen this problem.

The Lord Buddha teaches us to be thrifty, to use natural resources carefully, and to be kind to each other. Wars and terrorist acts result from the lack of kindness on the parts of those involved. They have no understanding of the Law of Kamma. These problems can be solved through the revival of morality.

### **ASSIGNMENTS**

After you have finished studying this chapter, complete the test and the exercises provided in the workbook before proceeding to the next chapter.

# Chapter 9

## Rhetoric According to the Tipitaka

## Chapter 9

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# Rhetoric According to the Tipitaka

### **9.1 An Overview of Rhetoric According to the Tipitaka**

### **9.2 Well-Spoken Words**

9.2.1 The Lord Buddha's Sublime Words

9.2.2 The Eight Attributes of the Lord Buddha's Voice

9.2.3 The Meaning and Components of Well-Spoken Words

### **9.3 The Fruits of Well-Spoken Words**

9.3.1 The Perfect Man's Attributes and Well-Spoken Words

9.3.2 Examples of the Fruits of Well-Spoken Words

### **9.4 The Harm Wrought by Ill-Spoken Words**

### **9.5 Basic Attributes of a Dhamma Lecture**

### **9.6 Effective and Efficient Delivery of a Dhamma Lecture**

9.6.1 Being Audience-Centered

9.6.2 Using Examples

9.6.3 Using Analogies

9.6.4 Using Teaching Tools

### **9.7 How the Lord Buddha Answers a Dhamma Question**

### **9.8 How the Lord Buddha and Members of the Buddhist Communities Conduct a Debate**

## Concepts

1. Well-spoken words have five attributes: they are truthful; they are polite; they are useful; they are kind; they are spoken at the right time and at the right place.
2. The fruits of well-spoken words are many. For example, they close the gate to the state of loss and woe. They give rise to sweet breath, a lovely voice, and forty teeth in the case of the Lord Buddha, etc. The fruits of ill-spoken words are many. They open the gate to the state of loss and woe. Practitioners of ill-spoken words will encounter defamation, slander, false accusation, etc.
3. A Dhamma lecture has five basic attributes. The lecture should proceed chronologically. It should contain aspects of cause and effect. It should be kindly delivered. It should not be given for the sake of gain. And it should not be used to satirize oneself or anyone else.
4. Efficient and Effective delivery of a Dhamma lecture requires one to keep the audience in mind, provide information with relevant examples, use analogies, and use appropriate teaching tools.
5. There are four methods the Lord Buddha uses to answer a Dhamma question: Ekansavyakarana – He answers the question directly; Patipucchavyakarana – He returns the question with a question before answering; Vibhajjavyakarana – He answers the question by way of an explanation, and Thapaniyapanha – He does not answer the question at all because the question should not be answered.
6. Our Lord Buddha teaches all members of the Four Buddhist Communities to be equipped with Pariyatti (Dhamma knowledge), Patipatti (meditation practice), and Pativedha (supernormal insight gained through elevated meditative attainments) for our own benefit and for the protection of His Teachings.

## Objectives

To enable the student to learn about rhetoric according to the Tipitaka: well-spoken words, the fruits of well-spoken words, the harm wrought by ill-spoken words, basic attributes of a Dhamma lecture, effective and efficient delivery of a Dhamma lecture, how the Lord Buddha answers a Dhamma question, and how to hold a debate.

## Chapter 9

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### Rhetoric According to the Tipitaka

#### 9.1 An Overview of Rhetoric According to the Tipitaka

Six main topics will be covered under this subject: well-spoken words, the fruits of well-spoken words, the harm wrought by ill-spoken words, how to give a Dhamma lecture, how the Lord Buddha answers a Dhamma question, and how to hold a debate.

Well-spoken words have five attributes: they are truthful; they are polite; they are useful; they are kind; they are spoken at the right time and at the right place.

The fruits of well-spoken words include some of the Perfect Man's physical attributes, etc. Some examples of the harm wrought by ill-spoken words are given as mistakes made by our Lord Buddha during the existences that He was pursuing Perfections as a Bodhisatta.

How to give a Dhamma lecture covers two aspects: Basic attributes of a Dhamma lecture, and the effective and efficient delivery of a Dhamma lecture. Each time that the Lord Buddha gives a Dhamma lecture, it causes many people to attain Ariyahood and even more people to convert to Buddhism. What makes the Lord Buddha's Dhamma delivery so effective and efficient is the fact that He has His audience in mind; He provides Dhamma information along with relevant examples; He uses analogies; and He uses appropriate teaching tools.

There are four ways the Lord Buddha uses to answer a Dhamma question: Ekansavyakarana – He answers the question directly; Patipucchavyakarana – He returns the question with a question before answering; Vibhajjavyakarana – He answers the question by way of an explanation, and Thapaniyapanha – He does not answer the question at all because the question should not be answered.

Our Lord Buddha teaches all members of the Four Buddhist Communities to be equipped with Pariyatti (Dhamma knowledge), Patipatti (meditation practice), and Pativedha (supernormal insight gained through elevated meditative attainments) for our own benefit and for the protection of His Teachings. It is for the fact that Venerable Gunananda Thera of Sri Lanka was equipped with Pariyatti, Patipatti, and Pativedha that he could successfully hold and won the debate with non-believers who had made deleterious remarks against Buddhism.

## 9.2 Well-Spoken Words

It is due to the Lord Buddha's well-spoken words that cause a huge number of individuals to extinguish defilements and attain the everlasting bliss of Nibbana. The Lord Buddha's voice has eight special attributes as a result of having practiced well-spoken words all throughout His countless lifetimes. The five attributes of well-spoken words will also be presented under this topic.

### 9.2.1 The Lord Buddha's Sublime Words

In the Vutthi Sutta, the Lord Buddha says, "Of all the things that grow, knowledge is sublime. Of all the things that fall off, ignorance is sublime. Of all the living beings that walk, the Sangha are sublime. Of all the people that speak, the Lord Buddha is sublime."<sup>1</sup> Of the myriad living beings trapped in the round of rebirth, no one can help others end suffering except for the Lord Buddha. The Arahat Venerable Vangisa said, "The Lord Buddha's words spoken to end suffering are the most excellent of words."

Having heard the Lord Buddha's Dhamma lecture, everyone agreed that His words were lovely, penetrating, and clear like turning something upside down right-side-up, opening what was closed, giving directions to a person who has lost his way, a beacon in the dark. Having heard the Lord Buddha's Dhamma lecture, some asked to be ordained as a Bhikku; some took the Triple Gem as their refuge. These people converted to Buddhism. Some like Venerable Bahiyadaruciya attained Arahatship after having heard just a few words of the Dhamma.

One woman nearly became insane after having lost her children, her husband, her parents, and her older brother within a short span of time. She roamed the street naked lamenting her tragic losses. As soon as she heard the Lord Buddha say, "Let your mindfulness return to you, sister," the woman immediately put on some clothes and paid close attention to the Lord Buddha's Dhamma lecture. As a result, she was able to attain the Fruit of Sotapanna. She ordained as a Bhikkuni and eventually attained Arahatship. She was recognized by the Lord Buddha as being foremost in the Vinaya. Buddhists know her by the name of "Bhikkuni Patacara". Such is but one example of the wonder of the Lord Buddha's words. Those dared hold a debate with the Lord Buddha had to retreat in defeat, some decided to become His disciples as in the case of "Pilotika", a wandering religious mendicant.<sup>2</sup>

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<sup>1</sup> *Vuṭṭhi Sutta. Samyuttanikāya. Sagāthavagga.* Bangkok: Mahamakut Buddhist University Press, vol. 24, no. 206, p. 302

<sup>2</sup> *Cūlahatthipadopama Sutta. Majjhimanikāya Mūlapaṇṇāsa.* Bangkok: Mahamakut Buddhist University Press, vol. 18, no. 329, p. 470-471

### **9.2.2 The Eight Special Attributes of the Lord Buddha's Voice**

The Lord Buddha's voice has the effect of making His audience want to practice His Teachings and attain Enlightenment. His voice has the eight special attributes as follows.

- 1) It is not hoarse.
- 2) It has clarity.
- 3) It is sweet.
- 4) It is lovely.
- 5) It has just the right tone.
- 6) It is not jarring on the ears.
- 7) It is deep and moving.
- 8) It is reverberating and uplifting.

These special attributes are a result of well-spoken words practiced throughout His countless previous existences. Some compare the Lord Buddha's voice to that of a Brahma king or a magical bird called karawek. It is written in the Commentary that when a karawek sings, the four-footed animals that are grazing would stop, the animals that are chasing after their prey would stand still, and all the prey animals would abandon their fear of death and stand still, the birds flying in the air would slow down, and all the fish in the water would stop moving, just so that they can listen to the karawek sing.

### **9.2.3 The Meaning and Attributes of Well-Spoken Words**

There is a saying, "Fish can live a long time because of its mouth but it is also because of its mouth that it takes the bait and ends up losing its life. Likewise, people will meet with success and prosperity because of his well-spoken words but one ill-spoken word may at times cause a person to lose his life." In the Vaca Sutta, the Lord Buddha says that well-spoken words are the foundations of speech.

#### **1) What Are Well-Spoken Words?**

Well-spoken words mean words that have been well thought out before they are spoken. Our eyes have just one function; they allow us to see. Our ears have just one function; they allow us to hear. Our nose with its two nostrils has just one function; it allows us to smell and breathe at the same time. But we have just one mouth for eating and talking.

The fact that we have two ears but just one mouth means that we are meant to listen more and talk less. When we eat, we should exercise moderation. When we speak, we should

choose words that are just right in both content and amount. We should say words that are useful to us and our listener.

## **2) The Attributes of Well-Spoken Words**

- (1) They must be true. They do not deviate from the truth. They are not embellished upon. They are not deceitful. They must be nothing but the truth.
- (2) They must be polite. They are sweet. They come from the heart. They must not offend. They must not be rude. They must not be sarcastic.
- (3) They are useful to both the speaker and the listener. Words that are true and polite, but when spoken can cause harm, should not be spoken.
- (4) They are kind. They are meant for the listener's happiness and growth. Words that are true, polite and useful if spoken out of anger or jealousy should not be spoken.
- (5) They are spoken at the right time and at the right place. Words that are true, polite, useful, and kind should be spoken at the right time and at the right place; otherwise, they may be taken as being fault-finding, etc.
  - Speaking at the right time means knowing when to say or not to say something, knowing how much one should say, and what the outcome of one's words may be.
  - Speaking at the right place means knowing the right circumstance in which something should be said; otherwise, it may backfire. It is really more important to know when not to say something than when to say something. Sometimes the best thing to do is to say nothing at all.

Ill-spoken words have five attributes as well. They are false. They offend. They are useless. They are unkind. They are inappropriate in both time and place.

### 9.3 The Fruits of Well-Spoken Words

For someone working toward Buddhahood, the fruits of well-spoken words are demonstrated in some of the Perfect Man’s attributes such as having 40 teeth, the teeth being arranged neatly and close together, having the voice of a Brahma being or a karawek, etc. For someone working toward the Lord Buddha’s discipleship, the same attributes apply but to a much lesser degree. Well-spoken words close the gate to the state of loss and woe. They cause a high rebirth. They cause one’s breath to be sweet and one’s voice to be lovely, etc. Examples of the fruits of well-spoken words are shown in the following tables.

#### 9.3.1 Some of the Perfect Man’s Attributes

No.	Well-Spoken Words	The Perfect Man’s Attributes
1	Abstaining from false speech. Saying only what is true.	1) Having one hair per follicle. 2) Having a tiny tuft of fine white hair between the eyes.
2	Abstaining from offensive speech. Saying endearing words.	1) Having a large tongue. 2) Having the voice of a Brahma being or a karawek.
3	Saying words that are wise, enlightening, useful, bringing about happiness for the masses. Words that honor Truth.	1) Each foot is like an upside down conk shell. 2) The end of each hair coils upward.
4	Abstaining from divisive speech. Saying things that unite people.	1) Having 40 teeth. 2) Having teeth close together.
5	Abstaining from nonsensical speech. Saying useful, truthful words at the right time and the right place.	1) Having a chin like that of a lion.
6	Approaching righteous monks to ask them about wholesomeness, unwholesomeness, what deeds are useful, what deeds are harmful, etc.	1) Having a very fine complexion. 2) Fine dust cannot adhere to His body.

### 9.3.2 Other Benefits Derived from Practicing Well-Spoken Words

No.	Name	Previous Deed	Benefits
1	<b>Ven. Bhuta Thera</b>	As a Brahmin named Sena, he sang the praises of the Lord Siddhattha Buddha with 4 verses.	<ol style="list-style-type: none"> <li>1. Rebirth in the States of Happiness for 94 Kappa.</li> <li>2. Possessed wealth.</li> <li>3. Was a Universal Monarch 4 times.</li> <li>4. Attained Nibbana.</li> </ol>
2	<b>Ven. Lakunataka-Bhaddiya Thera</b>	As a white koel, he sang the praises of the Lord Phussa Buddha.	<ol style="list-style-type: none"> <li>1. Reborn in the Tusita Realm</li> <li>2. Was foremost in having a lovely voice.</li> <li>3. Attained Nibbana.</li> </ol>
3	<b>Ven. Suganadha Thera</b>	As a monk during the Lord Kassapa Buddha, he was in the habit of praising the Lord Buddha.	<ol style="list-style-type: none"> <li>1. His breath was sweet and his body was fragrant.</li> <li>2. He was endearing and admirable.</li> <li>3. Possessed a ready wit.</li> <li>4. Was never contemptuous</li> <li>5. Rebirth in the States of Happiness for one Buddha Eon.</li> <li>6. Attained Nibbana.</li> </ol>
4	<b>Ven. Nanathavika</b>	As a Yogi, he sang the praises of the Lord Sumedha Buddha with 6 verses.	<ol style="list-style-type: none"> <li>1. Rebirth in the Celestial Realm 77 times.</li> <li>2. Was a celestial ruler 1,000 times.</li> <li>3. Was a Universal Monarch 100 times.</li> <li>4. Was king of a vassal state countless times.</li> <li>5. Had a stout heart.</li> <li>6. Had a sharp intellect.</li> <li>7. Not lacking in wealth.</li> <li>8. Rebirth in the States of Happiness for 30,000 Kappa.</li> <li>9. Attained Arahatsip at 7 years old.</li> </ol>
5	<b>A young girl</b>	She went to the woods against her mother's wish so her mother said let her be chased by a buffalo; it did happen that way she survived because of her truthful words.	The girl said, "Let not what my mother say happen but let what she thinks happen instead." And the buffalo stopped in its tracks.

These examples show how well-spoken words bear tremendous fruits and it is important that all of us practice righteous speech until it becomes a habit.

## 9.4 The Harm Wrought by Ill-Spoken Words

It is so easy to practice unrighteous speech but the harm wrought by it is tremendous. So many people unwittingly practice unrighteous speech without knowing what terrible consequences it incurs. When our Lord Buddha had been pursuing Perfections as a Bodhisatta, He had also been guilty of practicing unrighteous speech. Our Lord Buddha tells us about the thirteen unwholesome deeds committed by Him during His pursuit of Perfections, and how six of them have to do with ill-spoken words.

- 1) In one existence, our Bodhisatta was a cowherd. While he was herding the cattle, he saw a cow drinking muddy water. Not wanting the thirsty cow to drink the dirty water, he chased it away. As a result of that action, just before our Lord Buddha attained Complete Nibbana, He had to experience thirst because Venerable Ananda Thera refused to fetch Him water from the stream that had just been crossed by 500 wagons.
- 2) In one existence, our Bodhisatta was a thug called “Punali”. He made a false accusation against a Paccekabuddha by the name of “Surabhi”. As a result of that grave misdeed, he had to spend an interminably long time in the Hell Realm. This past misdeed also caused our Lord Buddha to be falsely accused by the woman “Sundarika” of having sexual intercourse with her.
- 3) In one existence, our Bodhisatta made a false accusation against a monk by the name of “Venerable Nanda Thera”, the disciple of one of the previous Buddhas. As a result of the misdeed, he had to spend an interminably long time in the Hell Realm. In the final existence, our Lord Buddha was falsely accused by the woman “Cincamanvika” of having sexual intercourse with her.
- 4) In one existence, our Bodhisatta was a Brahmin by the name of “Sutava”; he falsely accused a Yogi who had achieved Abhinna-5 of having sexual intercourse with women. This misdeed combined with the misdeed mentioned in 2) caused our Lord Buddha to be falsely accused by the woman “Sundarika” of having sexual intercourse with her.
- 5) In one existence, our Bodhisatta said to a group of disciples of the Lord Phussa Buddha, “You lot deserve red rice but never wheat.” It was due to this misdeed that our Lord Buddha had to eat red rice for 3 months when He was staying in the town of “Veranja”.

6) During the time of the Lord Kassapa Buddha, our Bodhisatta was a man called “Jotipala”. He made a contemptuous remark about the Lord Kassapa Buddha to the effect that no Self-Enlightenment had occurred because it was an extremely difficult feat. As a result of that misdeed, our Lord Buddha had to spend six long years practicing self-mortification before He returned to the Middle Way and practiced meditation until He attained Self-Enlightenment.<sup>3</sup>

The above examples show that even a Bodhisatta, who had been pursuing Perfections for countless existences in order to attain Buddhahood, could still make serious mistakes especially in terms of ill-spoken words. It is a mistake far too easily made but yields unimaginably damaging consequences. It is for this reason that the Lord Buddha advises us not to tell a lie even if it is in jest and that whoever lies is capable of committing other forms of unwholesomeness. Such a person is not unlike a war elephant in the battleground, it is unstoppable.<sup>4</sup>

## 9.5 Basic Attributes of a Dhamma Lecture

On one occasion, our Lord Buddha said to Venerable Ananda Thera,

“Ananda, it is not easy to give a Dhamma lecture. Any Bhikku wishing to give a Dhamma lecture to others must make sure that he does the following.<sup>5</sup>

- 1) The lecture he gives should proceed chronologically.
- 2) It should contain aspects of cause and effect.
- 3) It should be delivered with kindness.
- 4) It should not be given for the sake of gain.
- 5) And it should not be used to satirize himself or anyone else.

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<sup>3</sup> *Khuddaka-nikāya Apadāna*. Bangkok: Mahamakut Buddhist University Press, vol. 71, no. 392, p. 873-877

<sup>4</sup> *Cūlarāhulovadhā Sutta .Bhikkhuvagga Majjhimanikāya Mūlapaññāsa*. Bangkok: Mahamakut Buddhist University Press, vol. 20, no. 127, p. 265

<sup>5</sup> *Udāyī Sutta. Aṅguttaranikāya Pañcakanipāta*. Bangkok: Mahamakut Buddhist University Press, vol. 36, no. 159, p. 334

## 9.6 Effective and Efficient Delivery of a Dhamma Lecture

The following definitions for effective and efficient are taken from [www.differencebetween.net](http://www.differencebetween.net).

**Effective** (adj.): Adequate to accomplish a purpose; producing the intended or expected result.

**Efficient** (adj.): Performing or functioning in the best possible manner with the least waste of time and effort.

If you want an easier way to memorize the difference between these two words, remember this sentence: “Being effective is about doing the right things, while being efficient is about doing things in the right manner.”

Each time our Lord Buddha gives a Dhamma lecture, He does so effectively and efficiently because He knows His audience. He uses examples, analogies, and relevant teaching tools. Our Lord Buddha is the ultimate teacher of Dhamma.

### 9.6.1 Being Audience-Centered

In today’s education, this concept is known as “child-centered learning”. It means that in any learning activity, the teacher must bear in mind the student’s background and interest as opposed to cramming the student with all kinds of information. In being audience-centered, our Lord Buddha uses a language spoken by the common people and teaches the kind of things that the listener can relate to.

#### 1) Using the Pali Language

Our Lord Buddha used Pali instead of Sanskrit to teach the Dhamma because it was the language of the common people of Magadha in those days. The Brahmins could speak it as well. However, Sanskrit was the language of the Vedas and was used by the Brahmins only.

During the Lord Buddha’s time, the kingdom of Magadha ruled by King Bimbisara was a superpower. It had military might. It was an economic superpower and the center of many religions. A large number of wealthy people as well as cult leaders lived there. Pali was more widely used than any other language, a situation not unlike English in the present time. Therefore, the Lord Buddha chose to establish Buddhism first in the kingdom of Magadha and employed Pali as the language for teaching and spreading the Dhamma.

In those days, India covered a vast territory and hundreds of different languages were used in different regions and it was possible that in many areas, Pali was not understood. It was perhaps due to this reason that the Lord Buddha did not forbid the Bhikkus to teach the Dhamma in other languages except for Sanskrit, which was the language of the Brahmins. The Lord Buddha was more interested in making the Dhamma known to all people albeit the language differences. The Lord Buddha wanted His disciples to use the language understood by the locals when giving a Dhamma lecture. It did not matter that a particular type of vessel was called by a different name such as “Pati”, “Patta”, “Pittha”, “Sarava”, “Harosa”, “Pona”, “Hana”, or “Pipila” in different areas, it was the teaching Bhikku’s duty to know what each word meant.

Moreover, whenever the Lord Buddha was teaching someone, He would select a topic of conversation familiar to that person. For example, to a Brahmin interested in washing away Papa or demerit, the Lord Buddha would talk to him about that subject. He talked about farming with farmers, horse-training with horse trainers, etc.

### **1.1) Teaching a Brahmin**

On one occasion, the Lord Buddha was talking to a Brahmin,

“I heard that you believe in the purifying power of water and that you go down to bathe in the river every morning and every evening.”

“It is true, Venerable Gautama.”

“Why do you do that?”

“It’s because whatever “Papa” I committed during the day, I can float it away by bathing in the evening. And whatever “Papa” I committed during the night, I can float it away by bathing in the morning.”

“Behold Brahmin, Sila, Samadhi, and Panna are like the water in the river and whoever practices them can attain the shore of Nibbana.”

These words allowed the Brahmin “Sangarava” to understand the Dhamma in such a way that he vowed to take the Triple Gem as his refuge for the rest of his life.

## 1.2) Teaching a Rice Farmer

On one occasion, the Lord Buddha went on an alms-round at the almonry of the Brahmin “Kasibharadavaja”. The Brahmin said to the Lord Buddha,

“Venerable Sir, I plough the land and sow the grain before I eat. And so should you.”

“Behold Brahmin, I too plough the land and sow the grain before I eat.”

“But I do not see your yoke, your plough, your ploughshare, your goad or your oxen.”

“Faith is the grain. Effort is the rain. My wisdom is the yoke and the plough. Hiri is the curved blade. My mindfulness is the ploughshare and goad. I’ve protected my body. I’ve protected my words. I’ve exercised moderation when eating. I’ve removed the weed or false speech by speaking truth. Gentleness causes my work to get done. Effort leads me to fulfillment, to freedom from bondage, and to a blissful place. This is how I do my farming. The fruits of my rice paddies are eternal. Anyone that farms in this manner will be free from all suffering.”

The Lord Buddha’s words allowed the Brahmin “Kasibharadavaja” to understand the Dhamma.

## 1.3) Teaching a Horse-Trainer

On one occasion, the Lord Buddha asked the horse-trainer called “Kesi”,

“Behold Kesi, how do you train a horse that is trainable?”

“At times, I train it using a gentle method. At times, I use a harsh method. And at times, I use a combination of a gentle method and a harsh method.”

“Kesi, what if the horse does not respond to any of your training methods, what do you do with it?”

“In that case, I will kill it because I do not want any damage to come to my master’s reputation. Most Exalted One, you are the finest trainer of men, how do you do it?”

“Kesi, I too employ all of the methods you employ in your horse-training. When I use the gentle method, I say good bodily conduct is so and so; the fruit of good bodily conduct is so and so. When I use the harsh method, I say bodily misconduct is so and so; the fruit of bodily misconduct is so and so. When I use the combination of a gentle method and a harsh method, I say good bodily conduct is so and so; the fruit of good bodily conduct is so and so. Bodily misconduct is so and so; the fruit of bodily misconduct is so and so.”

“And what if the person does not respond to any of your training methods, what do you do with him?”

“Kesi, I kill him.”

“But killing is not fitting for the Most Exalted One.”

“That’s true, Kesi. I kill him by not teaching him. This is a good way of killing according to the Ariya Vinaya.”

This conversation allowed Kesi to understand the Lord Buddha’s Teachings such that he vowed to take the Triple Gem as his refuge for the rest of his life.

## **2) Teaching the Kind of Things that His Listener Could Relate to**

Before the Lord Buddha taught a particular Bhikku, He would first recall the Bhikku’s past lives to see what he had been like and what his personal preference was so that He can teach him the meditation method that will allow him to attain the Dhamma. On one occasion, Venerable Sariputra Thera had been teaching meditation practice to a particular Bhikku. Seeing that the Bhikku was still young and might likely be bothered by sensual lust, Venerable Sariputra Thera told the Bhikku to use a corpse as his object of meditation. After some time, the Bhikku was still not making any progress so Venerable Sariputra Thera told the Lord Buddha about the situation. Our Lord Buddha recalled the Bhikku’s previous lives and found that he had been a goldsmith and therefore familiar with exquisite things. The Lord Buddha employed His supernormal powers to create a gold lotus for the said Bhikku to use as his object of meditation. And it was soon afterward that the Bhikku attained Arahathship.

There were other examples. The Jadila brothers were ascetics who worshipped fire. The Lord Buddha gave them a Dhamma lecture called the Adittapariyaya Sutta, which had to do with heat and the Jadila brothers attained Arahathship as a result. The five ascetics or Pancavaggiya believed that self-mortification was the only way that could lead to self-enlightenment. Our Lord Buddha gave them a Dhamma lecture called the Dhammacakkappavattana Sutta, which had to do with the Middle Way and the avoidance of the two extremes: self-mortification and indulging in sensual pleasures. At the first hearing, Annakonddana attained the Fruit of Sotapana. Our Lord Buddha took Venerable Nanda who had been dominated by sensual lust to the Tavatimsa Realm so that he could see gorgeous female celestial beings. The Lord Buddha told him that if he put his mind to practicing meditation, he could have a female celestial being for a wife after he died. Venerable Nanda practiced meditation in earnest as advised by the Lord Buddha until all of his defilements were extinguished and he attained Arahathship.

These examples illustrate very well how our Lord Buddha's teaching method is truly a student-centered method. It is for this reason that countless humans and celestial beings could attain the Dhamma whenever the Lord Buddha gave a Dhamma lecture.

### 9.6.2 The Use of Examples

Whenever our Lord Buddha or His Ariya disciples teach someone, they would teach the different Dhammic principles and cite relevant examples to render the lecture easier to understand. Most of the teachings having to do with Dhammic principles and ranging from 1 to more than 10 principles appear in the Sutatantapitaka Anguttaranikaya, books 20 – 24. These include Kalyanamittata-1, Kamma-2, Punnakiriyavatthu-3, Iddhipada-4, Sila-5, Disa-6, Aparihaniyadhamma-7, Lokadhamma-8, Buddhaguna-9, Kusalakammappada-10, Ayatana-12, Dhutanga-13, Dhatu-18, Indriya-22, Bodhipakkhiyadhamma-37, Mangala-38, etc.

Most of the examples used appear in the Sutatantapitaka Khuddakanikaya, books 25-28 and 32-33. These include 550 Jataka Stories, 85 Vimanavatthu stories, 51 Petavatthu stories, 305 Dhammapada stories, and 663 Apadana stories. The total number of these stories is 1,654.<sup>6</sup> These stories have to do with our Lord Buddha's pursuit of Perfections during His existences as a Bodhisatta, the pursuit of Perfections of His disciples, and the fruits of merit or demerit as exemplified in the lives of different celestial beings and Petas.

Dhammic principles and relevant examples work together to make the teaching more effective and efficient. Dhammic principles contain different steps for practitioners to follow. They are precise and concise and easy to commit to memory. They provide the overall picture of a Dhammic topic. Relevant examples given along with the Dhammic principles further clarify the teaching at hand and inspire the student to practice them.

All 85 stories contained in Vimanavatthu have to do with how different celestial beings are reaping the fruits of the merit accumulated during their existence as a human being. It was Venerable Mahamoggalana Thera who one day thought if he could go to converse with different celestial beings about how the merit accumulated during their human existence is yielding fruits in their lives as a celestial being, these stories could inspire human beings to accumulate merit. Venerable Mahamoggalana Thera subsequently went around the Celestial Realm to converse with different celestial beings. He had them tell him what merit they had accumulated during their human existence that made it possible for them to live such a glorious life in the hereafter. He would tell the Lord

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<sup>6</sup> Sucheep Punnanuparp (2539 B.E.), the People's Tripitaka, p. 611, 614, 627 and Mahachulalongkornrajavidyalaya University's Thai Tripitaka (2540 B.E.), book 25 p. 23, book 33 p. 7-8

Buddha in the Dhamma Hall about these stories so that the Lord Buddha could further elaborate on the Law of Kamma; hence, making His Dhamma lectures even more beneficial to a great number of humans and celestial beings alike.<sup>7</sup>

When the Lord Buddha recognizes a disciple as being foremost in a particular area, it also serves to inspire people to accumulate merit to the best of their ability. Having witnessed a Bhikku or Bhikkuni being recognized by the Lord Buddha as being foremost in a particular area, so many individuals wish for the same recognition for themselves. Often times, this is the point where they begin earnestly pursuing Perfections so that they can realize their inspiration sometime in the distant future.

### 9.6.3 The Use of Analogies

According to [www.dictionary.com](http://www.dictionary.com), analogy is defined as a similarity between like features of two things, on which a comparison may be based. Analogy is used in order to make something, especially a new concept, easy to understand.

The Lord Buddha tells us that the Dhamma He has attained is profound, difficult to see, and difficult to know. It is tranquil and exquisite. It does not come about through logic. It is refined and only the wise can know it. The reason is most of the Lord Buddha's Teachings have to do with the mind such as Avijja or ignorance, Kilesa or defilements, Tanha or craving, Saddha or faith, Samadhi or concentration, Panna or insight, etc. It was necessary for the Lord Buddha to use analogies to compare what He was teaching to what His audience could relate to. The Lord Buddha and His Ariya disciples would preempt an analogy by saying, "Certain groups of wise men in this world can understand the meaning of words through the use of an analogy."

There are over 4,000 uses of analogy, comparison, and the like in the Thai Tripitaka. The Lord Buddha compares the body with a city or a termite mound. He compares Panna or insight with weaponry, chastity with a tree, Dhamma with a raft, Magga-8 with a sublime vehicle, Kilesa or defilements with rust, Kamma with paddies, Vinnana or consciousness with plants, Papa or demerit with a lump of salt, human beings with three categories of lotus, etc.

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<sup>7</sup> *Paramatthadīpanī Aṭṭhakathā-khuddaka-nikāya Vimānavatthu*. Bangkok: Mahamakut Buddhist University Press, vol. 48, p.5-7

### Using the Mystery Termite Mound in an Analogy

On one occasion, Venerable Kumarakassapa was staying in Andhavana Forest, a celestial being appeared and said to him, “Venerable Sir, this termite mound emits smoke at night and burns brightly during the day.” This is what the Brahmin said, ‘Sumedha, take this sharp tool and dig a dike.’ Sumedha dug a dike and found a wedge and bolt. The Brahmin said, ‘Sumedha, use the sharp tool to remove the wedge and bolt and continue digging.’ Sumedha did and found a bull frog.

The Brahmin said, ‘Sumedha, use the sharp tool to remove the bull frog and continue digging.’ The next thing Sumedha found was a crossroads. The Brahmin said, ‘Sumedha, destroy the crossroads and continue digging.’ Sumedha later found a pot used to filter alkaline water. The Brahmin said, ‘Sumedha, use the sharp tool to remove the pot and continue digging.’

Next, Sumedha found a turtle. The Brahmin said, ‘Sumedha, use the sharp tool to remove the turtle and continue digging.’ Sumedha did and found a chopping board. The Brahmin said, ‘Sumedha, use the sharp tool to remove the chopping board and continue digging.’ Sumedha did as told and found a piece of meat next. The Brahmin said, ‘Sumedha, use the sharp tool to remove the piece of meat and continue digging.’ Sumedha did and found a Naga. The Brahmin said, ‘Leave the Naga alone. Do not harm it. Humble yourself before it.’

The celestial being said, “Venerable Sir, please address these fifteen puzzles to the Lord Buddha because no one in the Three Realms of Existence except for the Lord Buddha can solve them.” The celestial being disappeared and Venerable Kumarakassapa went to see the Lord Buddha about the puzzles. *He asked the Lord Buddha,*

1. What is meant by the termite mound?
2. What is meant by emitting smoke at night?
3. What is meant by burning brightly during the day?
4. Who is meant by the Brahmin?
5. Who is meant by Sumedha?
6. What is meant by the sharp tool?
7. What is meant by digging?
8. What is meant by the wedge and bolt?
9. What is meant by the bull frog?
10. What is meant by the crossroads?
11. What is meant by the pot used to filter alkaline water?

12. What is meant by the turtle?
13. What is meant by the chopping board?
14. What is meant by the piece of meat?
15. What is meant by the Naga?

***The Lord Buddha answered,***

1. The termite mound means the body, which changes all the time; it must deteriorate and eventually scatter about.
2. Emitting smoke at night means working during the day and thinking about the work at night. Emitting smoke at night means thinking and worrying about work.
3. Burning brightly during the day means having thought about it during the night, a person works with his body and words during the day.
4. Brahmin is the name for the Lord Buddha.
5. Sumedha is the name for the Bhikku who has not yet attained Arahatsip.
6. The sharp weapon means sublime insight.
7. Digging means endeavoring.
8. Wedge and bolt means Avijja or ignorance. “Sumedha, use the sharp tool to remove the wedge and bolt” means using Panna or insight to remove ignorance.
9. Bull frog means vindictiveness. “Sumedha, use the sharp weapon to remove the bull frog” means abandoning vindictiveness, which results from anger.
10. Crossroads means Vicikiccha or hesitation and doubt; not knowing which direction to take. Doubt can be removed by knowledge, which comes from Panna or insight.
11. The pot used to filter alkaline water is the name for “Nivarana-5” or the Five Hindrances:
  - Kamachandanivarana: Sensual desire
  - Byabadanivarana: Vindictiveness
  - Thinamiddhanivarana: Sloth and torpor
  - Uddhaccakukkucca: Anxiety
  - Vicikiccha: Doubt
 “Sumedha, use the sharp tool to remove the pot used to filter alkaline water” means use Panna or insight to remove the Five Hindrances.
12. Turtle is the name for Upadanakhandha-5 or the five aggregates as objects of clinging:
  - Rupupadanakhandha: Corporeality
  - Vedanupadanakhandha: Feeling

Sannupadanakhandha: Perception

Sankharupadanakhandha: Mental formations

Vinnanupadanakhandha: Consciousness

“Sumedha, use the sharp tool to remove the turtle” means using Panna or insight to remove Upadanakhandha-5.

13. Chopping board is the name for Kamaguna-5 or five kinds of sensual pleasures derived from form, sound, smell, taste, and touch. Kamaguna-5 can be removed by Panna or insight.
14. Piece of meat is the name for Nandiraga or desire. Once Kamaguna-5 causes us to have desire, we are not unlike the piece of meat ready to be sliced on the chopping board. Kamaguna-5 can be removed by Panna or insight.
15. Naga is the name for an Arahant. It means once a Bhikkhu can remove desire, he will attain Arahantship and end all suffering.<sup>8</sup>

The above story is another great example of how to use simple words in an analogy to explain the profound Dhamma.

#### 9.6.4 The Use of Teaching Tools

There is a Chinese saying, “A picture is worth more than a thousand words.” This is so true when it comes to communicating an idea or a concept. A picture can get the point across in seconds while words can take much longer and after all has been said, no one can ever be certain that every listener has arrived at the same picture.

The Lord Buddha realizes the importance of teaching tools and often uses them whenever He can. For example, when He passed by a campfire, He would use it to help communicate His teaching. He did the same with a floating log, water foam, water for washing His feet, a stone, etc.

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<sup>8</sup> *Vammikka Sutta. Majjhimanikāya Mūlapaññāsa Aopammavagga.* Bangkok: Mahachulalongkornrajavidyalaya University Press, vol. 12, no. 249-251, p. 267-273

## 1. The Use of a Floating Log as a Teaching Tool

On one occasion, the Lord Buddha was staying on the bank of the Ganges in the city of Kosambi. He saw a log floating in the Ganges. He had His disciples fetched and asked them, “Can you see the floating log?” The Bhikkus answered that they could.

The Lord Buddha said, “If this floating log does not float near this bank or the opposite bank, if it does not beach itself, if it is not removed by humans, if it is not removed by non-humans, if it does not sink in a whirlpool, if it does not rot from within, it can float all the way to the ocean because the Ganges flows into the ocean.

If all of you do not come near this bank or the opposite bank, if you do not drown, if you do not beach yourself, if you are not captured by humans, if you are not possessed by non-humans, if you do not sink in a whirlpool, if you do not rot from within, all of you can attain Nibbana because Right View leads to Nibbana.

One of the Bhikkus asked, “What is this bank? What is the opposite bank? What is drowning? What is beaching oneself? What is being captured by humans? What is being possessed by non-humans? What is sinking in a whirlpool? What is rotting from within?”

The Lord Buddha answered,

This bank is the name of “Ajhattikayatana-6” which includes eyes, ears nose, tongue, body and mind.

The opposite bank is the name of “Bahirayatana-6” which includes form, sound, smell, taste, touch, and mind-objects.

Drowning is the name for “Nandiraga” or desire.

Beaching oneself means arrogance.

Being captured by humans means a Bhikku who is intimately involved with householders in their enjoyment, grief, happiness, unhappiness, and activities.

Being possessed by non-humans means a Bhikku who practices chastity because he wishes to become a celestial being.

Sinking in a whirlpool is the name for Kamaguna-5 which includes form, sound, smell, taste, and touch.

Rotting from within means a Bhikku, who transgresses the Precepts and is dominated by lust.

At the time, “Nanda” the cowherd was standing nearby and he said to the Lord Buddha, “I will not come near this bank. I will not go near the opposite bank. I will not drown. I will not beach myself. I will not be captured by humans. I will not be possessed by non-humans. I will not sink in a whirlpool. I will not rot from within. But I will ordain

under the Most Exalted One.” The Lord Buddha said to him, “In that case, Nanda, you should return the cows to their owner first.”

Having returned the cows to their owner, Nanda undertook ordination and soon afterward, he attained Arahathship.<sup>9</sup>

Our Lord Buddha had used the floating log as a teaching tool in His Dhamma teaching, which enabled His disciples to gain a clear picture of the Dhamma lesson. His teaching was so effective and so efficient that even a cowherd, who was normally not well-educated, could penetrate His Teachings.

## 2. Using Water for Washing His Feet as a Teaching Tool

On one occasion, the Lord Buddha was staying at the Veluvana Temple. In the evening, He went to see Venerable Rahula. Venerable Rahula saw the Lord Buddha from a distance and he hastened to prepare a seat and water for washing the Lord Buddha’s feet. Our Lord Buddha sat down, washed his feet and left some water in the bowl before He said to Venerable Rahula,

“Rahula, do you see the small amount of water left in the bowl?”

“Yes, Most Exalted One.”

“Rahula, just like the small amount of water here, there is a small amount of monkhood left in a person who tells lies even though he knows that he should not do it.” The Lord Buddha then poured a little bit of the water out and said, “Rahula, did you see the bit of water I just poured out?”

“Yes, Most Exalted One.”

“Rahula, there is a small amount of monkhood left in a person who tells lies even though he knows that he should not do it.” The Lord Buddha then turned the bowl upside down and said, “Rahula, do you see the upside down bowl?”

“Yes, Most Exalted One.”

“Rahula, the upside down bowl is like what monkhood is left in a person who tells lies even though he knows that he should not do it.”<sup>10</sup>

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<sup>9</sup> *Paṭhamadārūkkhandhopama Sutta. Samyuttanikāya Sahāyatanavagga.* Bangkok: Mahachulalongkornrajavidyalaya University Press, vol. 18, no. 241, p. 242-245

<sup>10</sup> *Cūlarāhulovadha Sutta. Majjhimanikāya Mūlapaṇṇāsa Bhikkhuvagga.* Bangkok: Bangkok: Mahachulalongkornrajavidyalaya University Press, vol. 13, no. 107, p. 117

Here, the Lord Buddha used the different amount of water to teach Venerable Rahula about the level of monkhood left in a person who transgresses the Bhikku's Precepts.

### 3. The Use of Stone as a Teaching Tool

On one occasion, the Lord Buddha said to His disciples, "A fool, who commits misconduct with his body, word, and thought, will be reborn in the state of loss and woe, in the States of Unhappiness, in a place of suffering, in the Hell Realm. The suffering of this world cannot compare to the suffering in the Hell Realm."

One of the Bhikkus asked, "Can the Most Exalted One use an analogy to describe this scenario?"

"Yes. Suppose a thief has been caught by a public servant and subsequently taken to the king, "Sire, this man is a thief. May it please your majesty to punish him."

The king says, "I want you to execute this thief by piercing him with 100 lances in the morning." In the morning, the thief was pierced with 100 lances. At noon, the king asks, "How is the thief?" The public servant says, "He is still alive, sire."

The king tells the public servant to pierce the thief with 100 additional lances. In the evening, the king asks the public servant, "How is the thief?" The public servant answered, "He is still alive, sire." The king tells the royal official to pierce the thief with 100 additional lances.

The Lord Buddha asked, "Having now been pierced with 300 lances, is the thief suffering at all?" The Bhikkus answered, "With just one lance he is already in agony, left alone 300 lances, Most Exalted One."

The Lord Buddha then picked up a stone the size of His palm and said, "Monks, between this stone and the Himavanta Mountain, which is greater?"

The monks answered, "This stone is so small that it can hardly be compared to the Himavanta Mountain, Most Exalted One."

"Monks, the agony experienced by the thief pierced with 300 lances cannot even begin to compare to the agony in the Hell Realm."

Mahanarok has four corners and four gates. It is divided into different parts, surrounded by an iron wall, and covered by an iron lid. It has an iron floor. The hell fire covers a radius of 1,600 kilometers at all times. No words can adequately describe the difference between the suffering on earth and the suffering in the Hell Realm.<sup>11</sup>

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<sup>11</sup> *Bālappaṇḍit Sutta. Majjhimanikāya Upariṇāṇāsa Bhikkhuvagga.* Bangkok: Mahachulalongkornrajavidyalaya University Press, vol. 14, no. 248-250, p. 293

## 9.7 How the Lord Buddha Answers a Dhamma Question

Our Lord Buddha answered different questions for the benefit of the questioner and the members of the Four Buddhist Communities. His answer had an enlightening quality like turning something upside down right-side-up, opening what was closed, giving directions to someone who has lost his way, a beacon shining in the dark. Before the Lord Buddha answered a question, He would first employ His incomparable insight to see the motive behind the question. This allowed Him to answer the question in such a way as to enlighten the questioner. According to the Lord Buddha, there are five motives behind a question.

### 9.7.1 Five Motives behind a Question

- 1) Stupidity and forgetfulness
- 2) Obscene desire
- 3) Contempt
- 4) The desire for knowledge
- 5) To see if the question can be correctly answered, if not, the questioner intends to supply the correct answer<sup>12</sup> with no intention of putting the answerer down or testing his breadth of knowledge.

Obscene desire means wanting others to think that one possesses such and such virtues even though one does not actually possess them. Here, obscene desire means that the questioner wants the answerer and everyone present to think that the questioner is scholarly when in fact he is not. Etc.

Contempt here means the questioner feels the answerer possesses inferior knowledge and wants to pose a difficult question in order to stump and embarrass him in public. In this case, the answerer already has the answer to his question.

The method used by the Lord Buddha to answer a question is called “Panhavyakarana-4”.

### 9.7.2 Panhavyakarana-4

There are four methods that the Lord Buddha uses to answer a question:

- 1) Ekansavyakarana – He answers the question directly;
- 2) Patipucchavyakarana – He returns the question with a question before answering;
- 3) Vibhajjavyakarana – He answers the question by way of an explanation; and
- 4) Thapaniyapanha – He does not answer the question at all because the question should not be answered.<sup>13</sup>

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<sup>12</sup> *Pañhāpucchā Sutta. Aṅguttaranikāya Pañcakanipāta.* Bangkok: Mahamakut Buddhist University Press, vol. 36, no. 165, p. 347

Examples of Ekansavyakarana: Question – Are the eyes changeable? Answer – They are. Is the nose changeable? It is. Etc.

Examples of Patipucchavyakarana: Question – The eyes are that way, are the ears that way too? If the questioner wants to know about the function then the answer will be – No, because the ears are for hearing. But if the questioner wants to know if both are changeable then the answer will be – Yes, they are both changeable.

An example of Vibhajjavyakarana: Question – Are the eyes changeable? Answer – Not only are the eyes changeable but also are the ears, nose, tongue, and every part of the body.

An example of Thapaniyapanha: Question – Is the earth permanent or impermanent? The Lord Buddha does not answer questions that serve no purpose in helping one put an end to suffering and attain Nibbana.

If the Lord Buddha answered such irrelevant questions, He would be bombarded by countless nonsensical questions such that he would have very little time left to help people put an end to suffering and attain Nibbana.

### **9.7.3 Examples of Panhavyakarana-4**

There are a large number of such examples in the Tipitaka but here only one example for each case will be presented so that the student can have some idea of how to answer the Dhamma questions addressed by those who earnestly want to learn more about the Dhamma.

#### **1) An Example of Ekansavyakarana**

On one occasion, Venerable Savittha and Venerable Mahakotathita went to see Venerable Sariputra. Venerable Sariputra said to them that there are these three kinds of individuals in this world.

The first kind is called “Kayasakkipuggala”. They include Ariya individuals who have experienced for themselves Vimokkha-8 and will penetrate Nibbana later on.

The second kind is called “Ditthipattapuggala”. They include Ariya individuals who have attained Right View and have the correct understanding of the Four Noble Truths.

The third kind is called “Saddhvimuttapuggala”. They include Ariya individuals who have achieved emancipation through Saddha or faith.

Out of these three kinds of individuals, which kind do you prefer?

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<sup>13</sup> *Samgūti Sutta. Dīgha-nikāya Pāṭikavagga.* Bangkok: Mahamakut Buddhist University Press, vol. 11, no. 312, p. 29

This question is Ekansavyakarana because there is only one way to answer it.

Venerable Suvittha answered, “I prefer Saddhavimuttapuggala because their Saddhinadriya has been highly developed.”

Venerable Mahakotathita answered, “I prefer Kayasakkhipuggala because their Samadhinadriya has been highly developed.”

Venerable Sariputra said, “I prefer Ditthipattapuggala because their Pannindriya has been highly developed. Now that we have answered the question according to how we feel. Let’s go now to see the Lord Buddha so that we can hear His answer together.”

The Lord Buddha said that it is not easy to answer such a question. The reason is some Saddhavimutta individuals have attained Arahatsip while some Kayasakkhi and Ditthipatta individuals are Sakadagami or Anagami. In other words, comparison cannot be made with these three kinds of individuals, since they possess different levels of meditative attainments.

## **2) An Example of Patipucchavyakarana**

On one occasion, King Ajatasattu went to see the Lord Buddha and asked Him questions about whether or not the fruits of monkhood can be witnessed here and now.

The Lord Buddha said to King Ajatasattu, Let me begin by asking you a question. Suppose you have a male slave who has served you well. Sometime later, this slave enters the monkhood. Would you still want him back as your slave?

That cannot be, Most Exalted One. In fact, I should pay him respect, get up to greet him, invite him to sit down, offer him robes, food, shelter, medicine, and protection.

If that is the case, can you now see the fruits of monkhood here and now?

Yes, Most Exalted One.

Well, that is the first fruit of monkhood in the here and now.

Most Exalted One, are there other fruits of monkhood that can be witnessed here and now?

Let me ask you this question. Suppose a farmer or a householder pays you taxes regularly. Sometime later, he enters the monkhood and practices righteously. Would you still demand taxes from him?

That cannot be, Most Exalted One. In fact, I should pay him respect, get up to greet him, invite him to sit down, offer him robes, food, shelter, medicine, and protection.

If that is the case, can you now see the fruits of monkhood here and now?

Yes, Most Exalted One.

Well, that is the second fruit of monkhood in the here and now.

King Ajatasattu continued to ask more questions about the fruits of monkhood. In answering his questions the Lord Buddha taught him about Sila (morality), Samadhi (concentration), and Panna (insight) all the way to the attainment of Arahatsip. Having answered all the king's questions, King Ajatasattu said, Most Exalted One, your words are so very lovely. It is like turning something upside down right-side-up, opening something that was closed, giving directions to someone who has lost his way or a light shining in the dark. I vow to take the Lord Buddha, the Dhamma, and the Sangha as my refuge. I vow to be an Upasaka for the rest of my life.<sup>14</sup>

Giving a Dhamma lecture by returning a question with a question actively engages the questioner and causes him to be more attentive, since he has to listen carefully to what is being said as well as what is being asked. When a listener is not hence engaged, he may not be as attentive and at times may even fall asleep during the lecture.

### 3) An Example of Vibhajjavyakarana

On one occasion, our Lord Buddha was sitting under a tree in the city of Veranja. The Brahmin Veranja said to the Lord Buddha, "I've heard that Venerable Gautama does not bow to an elder or get up to welcome an elder. That is not proper conduct."

The Lord Buddha said to the Brahmin, "I have not seen anyone in the Three Realms of existence to whom I should bow to or get up to welcome. In fact, if I did that to anyone, his head would fall off."

"Venerable Gautama does not at all care."

"That is true. The Tathagata does not at all care when it comes to corporeality, sound, smell, etc. The Tathagata has abstained from those things but he is not callous in the way that you accuse him of."

"Venerable Gautama harbors disgust."

"That is true. The Tathagatha finds bodily misconduct, verbal misconduct, and mental misconduct disgusting but he does not harbor disgust in the same way that you accuse him of."

"Venerable Gautama is an exterminator."

"That is true. I give Dhamma lectures for the extermination of lust, anger, and ignorance but I am not an exterminator in the same way that you accuse me of."

"Venerable Gautama is a destroyer."

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<sup>14</sup> *Sumamgalavilāsiniṃ Aṭṭhakathā-dīgha-nikāya Sīlakhandhavagga*. Bangkok: Mahamakut Buddhist University Press, vol. 11, no. 100-101, p. 304-308

“That is true. I say unwholesomeness ought to be destroyed and the Tathagatha has completely uprooted unwholesomeness but he is not a destroyer in the same way that you accuse him of.”

“Venerable Gautama is not reborn.”

“That is true. The Tathagatha has ended the round of rebirth but not in the same way that you accuse him of. A mother hen may lay 8, 10 or 12 eggs and incubate them. Whichever chick is the first one to hatch should be older or younger than the rest?”

“Older because it hatches first.”

“Likewise, the Tathagatha is older because he is the first to destroy Avijja (ignorance) and attain Enlightenment.” The Lord Buddha went on to explain the Four Jhanas and the Threefold Knowledge to the Brahmin. At the end of the lecture, the Brahmin Veranja said to the Lord Buddha, “Venerable Gautama is the most advanced being. Venerable Gautama is the most sublime being. His words are most lovely and most penetrating. He turns something upside down right-side-up. He opens what was closed. He gives directions to someone who has lost his way. He shines like a beacon in the dark. I take Venerable Gautama, the Dhamma, and the Sangha as my refuge and please remember me as an Upasaka for the rest of my days.”<sup>15</sup>

This type of questions can have different meanings. Therefore, the Lord Buddha chose to interpret the questions in such a way that allowed the Brahmin to benefit from His answers.

#### **4) An Example of Thapaniyapanha**

On one occasion, Venerable Malunkayaputra felt that the Lord Buddha did not answer the question about whether the worlds are or are not changeable, whether the worlds are finite or infinite, etc. He disliked the fact that the Lord Buddha did not answer such questions. Therefore, he wanted to address the questions to the Lord Buddha and if he received answers, he would remain in the monkhood. If not, he would disrobe and become a householder.

Venerable Malunkayaputra said to the Lord Buddha that if He did not know the answers to these questions, He should just say so. And if He did know the answers then He should answer them. Otherwise, he would disrobe.

The Lord Buddha said, “Behold Malunkayaputra, did I ever say to you that if you ordain I would give you answers to these questions?”

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<sup>15</sup> *Mahavibhang Part I*. Bangkok: Mahamakut Buddhist University Press, vol. 1, no. 1-4, p. 1-9

“No, Most Exalted One.”

“Did you ever tell me that you would continue to be a monk if I answer these questions?”

“No, Most Exalted One.”

“Behold Malunkayaputra, if I did not say anything to you about this and you did not say anything to me about this, why are you now doing this? Suppose a man has been shot by a poisoned dart and his relative wanted to take him to the doctor. But the injured man said that he wanted first to find out who had shot him and everything about him before having the poisoned dart removed. The man would surely die before he could find out anything. Likewise, whoever has such questions for the Tathagatha will never receive any answer. I do not answer such questions because they are useless. They do not help one to attain Enlightenment. However, I do answer that this is Dukkha (suffering), this is the cause of Dukkha, this is the cessation of Dukkha, and this is the practice leading to the cessation of Dukkha. I teach these things because they are useful and they lead one to attain Enlightenment and Nibbana.”<sup>16</sup>

## **9.8 How the Lord Buddha and Members of the Buddhist Communities Conduct a Debate**

Holding a Dhamma debate is important and necessary when the Lord Buddha’s Teachings are being encroached upon, challenged or distorted. A Dhamma debate can be employed to put an end to such a situation.

In the Mahaparinibbana Sutta, the Lord Buddha says that there are two things He has to accomplish before attaining Complete Nibbana.

- 1) He must train Bhikkus, Bhikkunis, Upasakas, and Upasikas to be clever, bold, scholarly, and knowledgeable in the Dhamma. He must train them to be righteous, capable of giving Dhamma lectures in an elaborated or abbreviated form and capable of defending His Teachings against non-believers who attack or make derogatory remarks against them.

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<sup>16</sup> *Cūlamāluṅkaya Sutta. Majjhimanikāya Mūlapaṇṇāsa.* Bangkok: Mahamakut Buddhist University Press, vol. 20, no. 152, p. 304

2) He must establish Buddhism and spread it far and wide.

In terms of the first task, it means that the Lord Buddha must train members of the Four Buddhist Communities to be equipped with Pariyatti (Dhamma knowledge), Patipatti (meditation practice), and Pativedha (supernormal insight gained through elevated meditative attainments). These three must always be practiced together. They are the means to become an expert in the Dhamma. The Lord Buddha wishes every Buddhist to be thus equipped so that he can benefit himself and the world and have the ability to defend Buddhism against ill-wishers.

In the history of Buddhism, there were several times when a debate was held in order to defend Buddhism. These accounts will be presented starting from the most recent debate back to the Lord Buddha's time.

Around 2048 – 2491 B.E., during the time of Venerable Gunananda Thera, Sri Lanka was under the rule of Holland, Portugal, and the British Empire. Buddhists were severely oppressed. They were forbidden by the government to hold a religious ceremony. At the same time, members of another faith had been writing a string of books and articles attacking Buddhism for years. Little Michael was ordained as a novice monk called “Gunananda”. He studied the Dhamma until he became an expert in it. As a monk, he volunteered to defend Buddhism in a series of debates against non-believers who attacked Buddhism and won. And he successfully restored Buddhism to its original glory in Sri Lanka.<sup>17</sup>

When Venerable Xuanzang was studying at Nalanda University, a philosopher of the Kokayata Cult challenged the faculties of Nanlanda to a debate. The university sent Venerable Xuanzang to the debate which he won. As a result, the philosopher converted to Buddhism.<sup>18</sup>

Around 1243 B.E., a Hindu priest called Sankara announced that he would hold a debate with a Bhikku. At the time, Buddhism was declining because Bhikkus lacked both Pariyatti and Patipatti. Therefore, not a single Bhikku could be found to defend Buddhism. Worse, 500 Bhikkus in Bengali converted to Hinduism instead.<sup>19</sup>

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<sup>17</sup> Personnel Development Institute, Academic Department (2548 B.E.) “Gunananda Thera, Defender of Buddhism in Sri Lanka”, p. 91-99

<sup>18</sup> Satien Potinanta (2539 B.E.) “The History of Buddhism”, p. 207

<sup>19</sup> Satien Potinanta (2540 B.E.) “The History of Buddhism, Mukhapatha Part 1”, p. 158

Five hundred years after the Lord Buddha's attainment of Complete Nibbana, King Milinda was the ruler Sagala City. He was a highly intelligent individual as well as a debate expert. He had gone around asking Bhikkus and ascetics all kinds of questions. Most of them could not answer his questions and had either to flee to the Himavanta Forest or keep out of sight. This caused Sagala City to be almost empty of ascetics for 12 years. Buddhism went through a decline. Finally, the celestial being "Mahasena" ceased to be in the Celestial Realm. He was reborn in the Human Realm, and later ordained as a Bhikku called Venerable Nagasena Thera. He had practiced meditation until he could attain Arahathship. He succeeded in answering every one of King Milinda's questions. Buddhism was revived and King Milinda eventually ordained as a Bhikku and attained Arahathship as well.

During the Lord Buddha's time, there was a debate between the Lord Buddha and Nigantha. There was a debate between Venerable Kumarakassapa and King Payasi. And there was a debate between Venerable Sariputra and a female religious mendicant. Here, only the debate between the Lord Buddha and Nigantha will be presented.

On one occasion, the Lord Buddha was staying in the Mahavana Forest near the city of Vesali. Nigantha told the people of Vesali that he did not see any monk or ascetic who did not feel intimidated or did not have sweat in his armpits when holding a debate with him. Were he to hold a debate with a pole, the pole would quake.

He thought that he should seek Venerable Gautama out and put his view right. Therefore, he went to the Mahavana Forest to ask what Venerable Gautama had been teaching his disciples.

"I teach my disciples that corporeality is changeable, feeling is changeable, perception is changeable, mental formations are changeable, and consciousness is changeable."

"Venerable Gautama, vegetation needs land in order to grow. People can work because they depend on the land. A person must have his very own corporeality, feeling, perception, mental formations and consciousness in order to experience the fruits of merit. Do they not?"

"A king can kill whoever deserves to be killed, confiscates the possessions of someone or chases someone from his kingdom. Is that not so?"

"Yes, it is."

“You said that you are your corporeality, can you command it to be so and so or not to be so and so and can anyone about to be executed by the king command his body not to hurt or not to die, etc.?”

Nigantha sat still and the Lord Buddha had to repeat the question for the third time before Nigantha answered that it cannot be.

“Your answer does not agree with your earlier comment. You said that your feeling is you, your perception is you, your mental formations are you, your consciousness is you. Tell me then, can you command your feeling, your perception, your mental formations, and your consciousness to be as you wish?”

“No, I cannot.”

“Well then, are corporeality, feeling, perception, mental formations, and consciousness changeable or not changeable?”

“They are changeable.”

“If something is changeable, is it the cause of happiness or unhappiness?”

“It is the cause of unhappiness.”

“If something changeable is the cause of unhappiness, should one hold it as being one’s own?”

“One should not.”

The Lord Buddha continued to teach Nigantha. At the end of the lecture, Nigantha admitted that he was an arrogant person for thinking that he could win a debate with Venerable Gautama. A man encountering an elephant in rut, a burning fire, or a poisonous snake can still find ways to escape but whoever meets Venerable Gautama has no way of escaping.

Rhetoric according to the Tipitaka is profound and plays an important role in spreading Buddhism far and wide. Moreover, its application in our life can help us to meet with success and happiness.

## **ASSIGNMENTS**

After you have finished studying this chapter, complete the test and the exercises provided in the workbook before proceeding to the next chapter.

# **Chapter 10**

## **Natural and Physical Science**

### **According to the Tipitaka**

## Chapter 10

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# Natural and Physical Science According to the Tipitaka

**10.1 An Overview of Natural and Physical Science According to the Tipitaka**

**10.2 Attitude toward Knowledge**

**10.3 Characteristics of Knowledge According to the Tipitaka**

**10.4 The Search for Knowledge**

**10.5 Meditation and Scientific Discovery**

**10.6 Details of the Five Universal Laws**

10.6.1 Biological Laws

10.6.2 Physical Laws

10.6.3 Psychic Laws

10.6.4 The Law of Kamma

10.6.5 General Laws

**10.7 How to Verify the Teachings in the Tipitaka**

## Concepts

1. The attitude one should have toward the knowledge in the Tipitaka is, do not believe anything one hears however believable it may be until one can verify it.
2. Knowledge in the Tipitaka is based on cause and effect.
3. According to the Tipitaka, there are three ways to search for knowledge: Sutamayapanna – knowledge gained from listening, Cintamayapanna – knowledge gained from thinking, and Bhavanamayapanna – knowledge gained from meditation practice. Bhavanamayapanna is knowledge at the highest level.
4. Most of the important scientific laws and theories have been discovered with the help of Bhavanamayapanna but it is Bhavanamayapanna at an elementary level.
5. The Five Universal Laws are the laws that govern everything in the galaxies. Everything can be explained by these laws. Things like the structure of the universe, the structure of the galaxy, the structure of an atom, human beings, animals, plants, psychology, environmental problems, etc., can all be explained by the Five Universal Laws.
6. The teachings in the Tipitaka concerning such refined and invisible phenomena as the Hell Realm, the Celestial Realm, Nibbana, Lokanta, etc., can be verified by one instrument only, the mind. That is, one must practice meditation to the point where one can attain Nanadasana or supernormal insight before one can prove the existence of these phenomena. They can never be proven using scientific means.

## Objective

To enable the student to learn about scientific principles according to the Tipitaka such as attitude toward knowledge, characteristics of knowledge, how to search for knowledge, meditation and scientific discovery, the Five Universal Laws, and how to verify the teachings in the Tipitaka.

## Chapter 10

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### Natural and Physical Science According to the Tipitaka

#### 10.1 An Overview of Natural and Physical Science According to the Tipitaka

Natural and physical science according to the Tipitaka has to do with attitude toward knowledge, characteristics of knowledge, how to search for knowledge, meditation and scientific discovery, the Five Universal Laws, and how to verify the teachings in the Tipitaka.

This is not to say that the Lord Buddha's Teachings are part of science. They are not, simply because knowledge in the Tipitaka is the Lord Buddha's enlightened knowledge. It is the knowledge gained from Bhavanamayapanna. It is absolute knowledge and as such it can never change.

However, scientific knowledge is not absolute knowledge because it is the knowledge gained from Sutamayapanna and Cintamayapanna through the methods of postulating a theory and designing experiments to verify the theory. Scientific theories can change.

#### 10.2 Attitude toward Knowledge

Attitude toward knowledge according to the Tipitaka is similar to science in that one should not believe anything until one can personally verify it. On one occasion, our Lord Buddha went to the kingdom of Kosala along with a large group of Bhikkus. When He arrived at a Kalama community called Kesaputta, the Kalama residents went to see the Lord Buddha.

“Most Exalted One, a group of ascetics came to Kesaputta and said that their doctrine is the only one that one should believe. They also vilified other doctrines. Another group of ascetics came and did the same thing. We would like to know which group of ascetics was telling the truth.”

The Lord Buddha told them that it was right that they should doubt, and proceeded to tell them what they should do when they heard something.

- 1) Do not believe something just because it has been passed down from earlier generations.
- 2) Do not believe something just because it has been practiced for generations.

- 3) Do not believe something just because it has been rumored to be so.
- 4) Do not believe something just because it is part of a text or scripture.
- 5) Do not believe something just because one thinks it believable.
- 6) Do not believe something through assumption.
- 7) Do not believe something through reasoning.
- 8) Do not believe something because it agrees with an existing theory.
- 9) Do not believe something because it appears believable.
- 10) Do not believe something just because one heard it from one's teacher.

The Lord Buddha added, "People of Kalama, when you can personally verify that something is unwholesome, harmful, blameworthy, useless, then you should abstain from that thing."<sup>1</sup>

On one occasion, the Lord Buddha said to Venerable Sariputra, "Behold Sariputra, do you believe that a person who has earnestly practiced Saddhindriya, Viriyindriya, Pannindriya, etc. will be able to achieve immortality?"

"Most Exalted One, I believe it because I've penetrated it and personally seen it with my insight."<sup>2</sup>

### **A Case of Blind Belief**

The Lord Buddha tells us that in one previous existence He was born a Rajasiha living in a forest. There was a place near the seashore where grew Toddy palm and Bael trees. One day, a rabbit was resting under a palm leaf and thinking if the ground should sink then and there; where could it escape to? Right at that moment, a ripe bael fruit fell on the palm leaf under which the rabbit was resting.

The rabbit thought the ground was sinking for certain and it ran for its life. Other rabbits asked what had given it fright and it said that the ground was sinking. Now 1,000 rabbits ran for their lives as well and so did a large number of animals within the area of 16 square kilometers.

The Bodhisatta Rajasiha wondered what was going on. When he learnt that the ground was sinking, he knew that it could not be true. He wanted to help the animals; therefore, he ran to the foothill and roared loudly thrice. Fear of the Rajasiha caused the animals to stop in their tracks.

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<sup>1</sup> *Kesaputti Sutta. Aṅguttaranikāya Dukkanipāta.* Bangkok: Mahachulalongkornrajavidyalaya University Press, vol. 20, no. 66, p. 255-257

<sup>2</sup> *Pubbakoṭṭhaka Sutta. Samyuttanikāya Mahāvalavagga.* Bangkok: Mahamakut Buddhist University Press, vol. 31, no. 983-986, p.73-75

The Bodhisatta Rajasiha asked the animals what they were running from and the animals answered in unison that the ground was sinking yonder. The Rajasiha asked which animal saw it. They said that the elephants knew. The elephants said that they did not know but the Sihas knew. The Sihas said that they did not know but the tigers knew, so on and so forth to rhinoceroses, oxen, buffaloes, cattle, pigs, and deer. The deer said that they did not know but the rabbits knew. The rabbits pointed to the first rabbit and said that they heard the rabbit say that the ground was sinking.

The Bodhisatta Rajasiha interrogated the said rabbit before leading all the animals to the place where the ground was supposedly sinking. All they saw was a ripe palm fruit on top of the palm leaf. The animals were told that if the Bodhisatta had not come to their aid, they would have all run into the sea and drowned. The Lord Buddha revealed that the Bodhisatta Rajasiha in that existence was now the Lord Buddha.<sup>3</sup>

This Jataka story illustrates clearly how believing something without personally verifying it is dangerous and is not the correct attitude toward knowledge. It is clear that the Lord Buddha does not teach blind faith but He teaches us to use our intelligence and effort to personally verify something before believing in it.

### **10.3 Characteristics of Knowledge According to the Tipitaka**

Knowledge in the Tipitaka is based on cause and effect as in what Venerable Assaji said to the mendicant Upatissa, “Whatever has a cause, the Tathagatha teaches us that cause as well as its cessation.”<sup>4</sup>

“Whatever has a cause” can be explained as follows. Dukkha or suffering is caused by Tanha or craving and the cessation of Dukkha (Nirodha) is brought about by the Noble Eightfold Path.

The Four Noble Paths encompass all of the Lord Buddha’s Teachings, and they can be expressed using just this one sentence. For someone like “Upatissa” who possessed exceptional intellect, he could attain the Fruit of Sotapanna just by hearing this sentence. After he entered the monkhood, he was called “Sariputra” and was later appointed by the Lord Buddha as Chief Disciple and recognized as being foremost in wisdom. But most of

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<sup>3</sup> *Dudadubhaya Jataka. Khuddaka-nikāya Jataka.* Bangkok: Mahamakut Buddhist University Press, vol. 58, no. 586-589, p.530-537

<sup>4</sup> *Vinayapiṭaka Mahāvagga.* Bangkok: Mahamakut Buddhist University Press, vol. 6, no. 68, p.125

us require far more detailed explanation, hence, the need for all the teachings in the Tipitaka.

Knowledge in science is also based on cause and effect. Scientists study nature in order to understand the causes of different natural phenomena. They postulate theories or laws, apply them to our daily life, and use them to develop new technologies. However, scientific knowledge is *Lokiya* or secular knowledge; it cannot lead one to put an end to suffering. This is different from the Lord Buddha's knowledge as expressed in the Four Noble Truths. Dhammic knowledge is *Lokuttara* or super-mundane knowledge; it can lead one out of suffering.

However, the Quantum Theory does not follow the law of cause and effect, since physical phenomena at microscopic scales can be predicted only in terms of probabilities. Einstein was concerned that Quantum Theory did not respect the law of cause and effect. And he was of the opinion that flaws had to have existed in the Quantum Theory but he could not explain what they were. Such questions remain to be settled by physicists of future generations.

## 10.4 The Search for Knowledge

It is mentioned in the Tipitaka that there are three means available to us when it comes to the search for knowledge: *Sutamayapanna*, *Cintamayapanna*, and *Bhavanamayapanna*.<sup>5</sup>

### 10.4.1 *Sutamayapanna*: The Knowledge Gained from Listening

*Sutamayapanna* comes from *Suta* (to listen) + *Maya* (gained from) + *Panna* (wisdom or insight). Therefore, *Sutamayapanna* means the wisdom gained from listening or the knowledge gained from listening. Today, this kind of knowledge can also be gained from reading, watching, and seeing. During the Lord Buddha's time, there were no books and no multimedia. Therefore, one learnt things mainly by listening to one's teacher.

The main point about *Sutamayapanna* has to do with the ability to capture the major and minor points of what is being said, read, watched, etc. Without this ability, it is pointless to listen, read, watch or see anything. To develop this ability means that one must be able to remember at least some of the major and minor points of the subject being listened to, read, watched, or seen. Therefore, this type of knowledge has to do with memorization.

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<sup>5</sup> *Samgāṭi Sutta. Dīgha-nikāya Pāṭikavagga*. Bangkok: Mahamakut Buddhist University Press, vol. 11, no. 107, p.271

### **10.4.2 Cintamayapanna: Knowledge Gained from Thinking**

Cintamayapanna comes from Cinta (thought) + Maya (gained) + Panna (wisdom or insight). Therefore, Cintamayapanna means the wisdom gained from thinking or the knowledge gained from thinking. After one has gained information from listening, reading, etc., the next thing one does is to contemplate or reflect upon the gained information in order to understand it.

In contemplating something, one begins by asking questions like why the speaker said what he did, why something is this way or that way, etc. Questions that begin with why allow one to gain a deeper understanding of the subject at hand. It is by asking “why questions” that scientists discover certain laws of nature and use them to develop different technologies.

The knowledge gained from contemplating the cause and effect of a phenomenon and finding evidence to support one’s idea in a systematic manner is called Cintamayapanna.

### **10.4.3 Bhavanamayapanna: Knowledge Gained from Meditation Practice**

Bhavanamayapanna comes from Bhavana (meditation practice) + Maya (gained from) + Panna (wisdom or insight). Therefore, Bhavanamayapanna means the wisdom gained from meditation practice or the knowledge gained from meditation practice.

Bhavanamayapanna is the knowledge gained from seeing; that is, seeing with Nanadassana or supernormal insight. When we practice meditation until we can keep our mind quiet and still long enough to attain Dhammakaya, we will be able to look into any matter of interest and gain perfect knowledge about it. The knowledge gained from such elevated meditation attainments is called perfect knowledge.

Meditation practice requires that we maintain a thought-free state by keeping our mind quiet and still in a relaxed manner for a prolonged period of time. Some may prefer to achieve this state by concentrating their mind on something. Meditation practice can be done by sitting meditation or by concentrating one’s mind on a particular activity.

Master Nun Chandra Khonnokyoong told one civil engineer that when you cannot seem to come up with any idea, it is best to find a quiet place and keep your mind as well as all the work that you’ve been doing inside yourself. Soon enough an idea will come to you and you will know to manage your work in terms of what you have to do, how to do it, etc. Master Nun Chandra Khonnokyoong and the Most Venerable Luang Por Dhammajayo told us to practice meditation in order to gain wisdom, hence, the source of solutions to our problems.

## 10.5 Meditation Practice and Scientific Discovery

Scientists search for knowledge by using primarily Sutamayapanna and Cintamayapanna. Even then it is noteworthy that many important theories have been discovered through the use of meditation either directly or indirectly. In his work the “Art of Thought”, published in 1926, Graham Wallas presented one of the first models of the creative process. In the Wallas stage model, creative insights and illuminations may be explained by a process consisting of 5 stages<sup>6</sup>:

- 1) Preparation: Preparatory work on a problem that focuses the individual's mind on the problem and explores the problem's dimensions,
- 2) Incubation: The stage where the problem is internalized into the unconscious mind and nothing appears externally to be happening,
- 3) Intimation: The creative person gets a "feeling" that a solution is on its way (this is the stage where meditation is involved),
- 4) Illumination or insight: The stage where the creative idea bursts forth from its preconscious processing into conscious awareness; and
- 5) Verification: The stage where the idea is consciously verified, elaborated, and then applied.

### 10.5.2 Albert Einstein's Employment of Meditation

On one occasion, Einstein gave a speech at a large scientific meeting where he said that a physicist's important responsibility is to search for laws or theories that correspond more with universal truth. No method of calculation or logic can lead one to a universal law or theory except for intuition, which shares a similarity with the Buddha-Insight. Sometimes, he would say that the only really valuable thing is intuition. Brian Josephson, a Nobel-winning physicist (2516 B.E.) said that he had discovered certain mysteries that could not have been gained by knowledge in physics but had been gained by meditation.

While Einstein worked, his mind would be highly concentrated on the work at hand. It is said that one day while Einstein was busily working on a solution to a physics problem, a bomb went off outside with a loud bang. His fellow physicists were startled but Einstein did not hear a thing. At the time when Einstein discovered the Theory of General Relativity, he had locked himself inside his office for two weeks. When he finally

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<sup>6</sup> Wikipedia: Creativity

emerged from his office, he walked downstairs and handed his wife two sheets of paper and said to her, “Here is the Theory of General Relativity.”<sup>7</sup>

When Einstein was working on a difficult problem, he would pace back and forth not unlike the way one does walking meditation. Banesh Hoffmann who was at one time a colleague of Einstein said that Einstein was in the habit of pacing back and forth and twirling his hair with a trance-like expression on his face. There was only tranquil internal communication. After a time, he would suddenly stop his pacing; his face would relax and a gentle smile would appear. This signified that he had found the solution to the problem at hand.<sup>8</sup>

### 10.5.3 Sir Isaac Newton and Meditation

Newton said that on one occasion while he was sitting under an apple tree, he wondered what causes an apple to fall from its tree. He did not think about the Law of Gravity then but it came to him while he was sitting quietly imagining an apple falling from its tree over and over again.<sup>9</sup>

Newton at times would pace back and forth when he was contemplating a problem in the same way that Einstein did. After a time, he would say out loud that he had found it before bounding up the stairs to his office in order to write something down while standing at his desk. Often times, Newton would sit quietly by himself for hours before rising suddenly to write something down for an hour or so.

Newton said that he would watch something that was happening in front of him for a prolonged period or contemplate something he was working on until the first light (Panna) slowly and gradually appeared and the solution came to him dimly at first but gradually brightening until he saw the entire solution clearly and perfectly.<sup>10</sup>

Many scientists and inventors employed meditation in their work. It was written about the scientist, Dr. Elmer R. Gates by a famous American writer Napoleon Hill that one day he went to see Dr. Gates about something. When he arrived at Dr. Gates’ office, his secretary told him that she could not allow him to disturb Dr. Gates just then. He asked how long he would have to wait and the secretary told him that she did not know but it might be as long as three hours because Dr. Gates was waiting for a creative idea to come to him. He wanted to know what she meant but the secretary said that he should wait for

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<sup>7</sup> Som Sujira (2550 B.E.), “Einstein discovers, the Lord Buddha sees”, p. 116, 117, 120, 123, 130

<sup>8</sup> Ibid.

<sup>9</sup> Ibid, p. 148

<sup>10</sup> Chaiyaprerak Penvijit (2545 B.E.), “Buddhism and Science”, volume 1, p. 65, 71, 72, 74

the answer from Dr. Gates. Eventually, Dr. Gates emerged from his office and Mr. Hill told him about his conversation with the secretary. Dr. Gates asked Mr. Hill if he was interested in seeing where and how he waited for a creative idea to come to him. Dr. Gates led Mr. Hill to a small, sound-proof room. Inside the room, there was a desk and a chair. On top of the desk, there were a large pile of paper, a lamp, and several pencils. Dr. Gates told him that whenever he could not find an answer to a problem he was working on, he would come to this room to sit in the dark and meditate deeply until a solution or other new ideas appeared to him. It was then that he would switch the light on and write things down on paper.<sup>11</sup>

Although a prolific inventor, Gates considered himself a psychologist. He applied scientific experiment to introspection and used invention to examine the processes by which the mind discovers new knowledge. This study led him to “psychotaxis,” the integrated hierarchy of sensory discriminations required to create a valid and complete mental representation of a given part of the physical world. Psychotaxis is a major component of “psychurgy”, Gates’ art of mind-using, which he regarded as an improved scientific method.<sup>12</sup>

## **10.6 Details of the Five Universal Laws**

The Five Universal Laws include Biological Laws, Physical Laws, Psychic Laws, Kammic Laws, and General Laws. These are the laws that control everything in the countless galaxies. Although scientists have long been hoping to come up with the “Theory of Everything”, which can explain every phenomenon from the nanometer world to the universe, but the theory continues to remain elusive.

### **10.6.1 Biological Laws**

Biological Laws apply to all living things such as plants, animals, and human beings but here only those applying to animals and humans will be presented. And a comparison of the relationship between humans and animals according to science and according to the Tipitaka will be made.

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<sup>11</sup> Chaiyaprek Penvijit (2545 B.E.), “Buddhism and Science”, volume 1, p. 89-90

<sup>12</sup> Wikipedia, “Elmer R. Gates”

According to the Tipitaka, the first human beings came from the Brahma Realm. In the beginning, human beings were virtuous and the environment was good. As time passed, humans were forced by their inherent defilements to commit unwholesome deeds. Most importantly, they no longer observed the Five Precepts or practiced the Tenfold Wholesome Course of Action. Human nature and the environment began to deteriorate further and further. And after these immoral humans died, they were reborn in the Animal Realm.

According to the Tipitaka, animals are the new physical forms of humans who did not possess human virtue. Therefore, according to the Tipitaka, humans do not evolve from animals as postulated by Charles Darwin in his Theory of Evolution. In fact, Genome research shows that animals are likely to have the same origin: humans.

### **Similarity between the Human Genome and Animal Genome**

Genome research shows a similarity between the human genome and animal genome. The similarity is very high in the case of mammals. Lisa Stubbs<sup>13</sup> reported that the genome of humans and practically all mammals has the same number of DNA, around 3,000 million base pairs. She said that the difference between human genes and mouse genes is probably not more than 1%. The difference comes from the gene structure and the protein production of the genes rather than the number of genes. And yet this small difference in the genes is enough to provide the difference between human and mouse. Research has also found that human genes and the genes of apes like chimpanzees, gorillas, and orangutans share a similarity as high as 95% to 98%.<sup>14</sup>

The National Human Genome Research Institute (NHGRI) and several universities have worked together to conduct gene research comparing human DNA to the DNA of chimpanzees, baboons, cats, dogs, cows, pigs, rats, mice, chicken, zebras, and two species of puffer fish. Dr. Eric Green, director of NHGRI and head of the research team said that their research showed that the genes of humans are more similar to those of mice than those of other carnivores such as dogs, cats, etc.<sup>15</sup>

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<sup>13</sup> Lisa Stubbs, Lawrence Livermore National Laboratory, CA, USA

<sup>14</sup> Lisa Stubbs (2008), "How closely related are mice and humans? How many genes are the same? (online)

<sup>15</sup> Eric D. Green (2003), "Pioneering Study Compares 13 Vertebrate Genomes" (online)

For the reason that mammal genes are similar to human genes, scientists have tried to decode the genes of these animals in order to use them as models in studying human diseases. At the end of 2550 B.E., Missouri University's scientists successfully decoded feline genes. This project enables scientists to understand more than 200 feline diseases that are also found in humans. These include blindness, AIDS, etc.<sup>16</sup> Before then, American scientists had successfully decoded canine DNA. Their research showed that the cause of death for most dogs was due to different kinds of cancer. These different kinds of dog cancer are similar to those found in humans.<sup>17</sup>

Charles Darwin said that humans evolved from apes and most scientists today share the same belief. However, genome research shows that the genomes of not only apes but also almost all mammals are similar to the human genome. How is it that humans who walk on two legs and animals that walk on four legs should have such similar genome that animal genome can be used as models to study human diseases? Scientists cannot answer this question but the Tipitaka can. The answer lies in the fact that animals are the current form of rebirth of the humans who did not possess human virtue because they did not observe the Five Precepts.

The Theory of Evolution does not have an answer for the "eccentricity factor" found in humans and animals. For example, physically normal parents may give birth to a physically handicapped child. Another example, high I.Q. parents may give birth to a retarded child. Conversely, physically handicapped parents may give birth to a physically normal child. Buddhism teaches that the eccentricity factor is caused by the Law of Kamma.

The Lord Buddha discovered that animals were former humans whereas Darwin postulated that humans evolved from animals. In terms of adaptation of humans and animals to changing environment, Buddhist teachings agree with Darwin's thought on the subject. Darwin found that animals must be able to adapt to changing environment in order to survive and if they cannot they would become extinct as in the case of dinosaurs, etc.

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<sup>16</sup> Manager (2550 B.E.), "Decoding cat DNA, models in curing human diseases" (online)

<sup>17</sup> Thai Rath (2548 B.E.), "Decoding dog DNA to keep humans healthy" (online)

It is written in the Tipitaka that in times past, humans were very big and very tall and the size of humans increase or decrease with the changing environment. This is exemplified by the height of different past Buddhas. For example, the Lord Vipassi Buddha was 40 meters tall. The Lord Sikhi Buddha was 35 meters tall. The Lord Vessabhu was 30 meters tall. The Lord Kakusandha Buddha was 20 meters tall. The Lord Konagamana Buddha was 15 meters tall. The Lord Kassapa Buddha was 10 meters tall. And the Lord Gautama Buddha was 8 meters tall.

The size of humans is as a function of their longevity. During the time of the Lord Vipassi Buddha, the average human lifespan was 80,000 years. In this Kappa (a Kappa is the time it takes for the earth to come to existence, develop, deteriorate, and come to an end), the average human lifespan has continued to decrease since the time of the Lord Kakusandha Buddha from 40,000 years to 100 years during the time of the Lord Gautama Buddha. And today the average human lifespan is 75 years. The environment has continued to deteriorate. The amount of food has been decreasing, so has its quality. Forests are shrinking or disappearing altogether. A large number of animals have become extinct. There is the problem of the greenhouse effect. Etc. Indeed, changing and deteriorating environment has had a destructive effect on humans and animals alike.

### **10.6.2 Physical Laws**

The Lord Buddha teaches Physical Laws in terms of Cakkavala (galaxy), Lokadhatu (universe), and the different realms of existence. Details of these Teachings are presented in different courses such as Buddhist Cosmology, Samadhi 8, and the Law of Kamma. Here, a comparison with science will be made for certain phenomena.

#### **1) Lokadhatu vs. Universe**

Many characteristics of the Universe as discovered by astrophysicists coincide with those of Lokadhatu mentioned in the Tipitaka. Lokadhatu means groups of Cakkavala. A small Lokadhatu contains 1,000 Cakkavala. A medium Lokadhatu contains one million Cakkavala. And a large Lokadhatu contains one trillion Cakkavala.

According to astronomy, a universe contains clusters of galaxies as well as superclusters of galaxies. Today, astrophysicists can observe the expanse of the Universe covering a radius of 14 billion light-years. They have found that within this area in space, there are 270,000 superclusters of galaxies and 500 million clusters of galaxies. In other words, they have been able to observe altogether 110 billion galaxies.

“Galaxy” has the same meaning as “Cakkavala”. Today, only 110 billion galaxies or 11% of one large Lokadhatu, which contains one trillion Cakkavala or galaxies, have been observed by astrophysicists.

It is written in the Tipitaka that there is not just one Lokadhatu but a large number of them. Numbers like 10,000 or 100,000 Lokadhatu appear in the Tipitaka.<sup>18</sup> Astrophysicists’ Inflation Theory and Multiverse Concept correspond with what is written in the Tipitaka about Lokadhatu or Universes.

Space in astronomy can be compared to Akasadhatu or Akasa in the Tipitaka, which means space. Our Lord Buddha teaches that Akasadhatu or space is one of the four kinds of infiniteness: living beings, space, galaxies, and Buddha-Nana or Buddha-Insight. Since space is infinite, the number of galaxies located in space is also infinite, and so is the number of living beings living in the infinite number of galaxies.

## **2) Mystery Radio Waves of the Milky Way Galaxy**

Astrophysicists have found that there are sources of radio waves scattered in different directions even though our Milky Way Galaxy has the shape of a pancake. And our Solar System is located near the center of the galaxy. When we look out into space, we can see more stars at the edge of the galaxy than in the areas above and below it. Therefore, the mystery radio waves should come from the edge of the galaxy rather than from the areas above and below it. And yet these radio waves have been found scattering all over the entire sky. Why? The answer still eludes astrophysicists.

If astrophysicists would take the time to learn about Buddhist Cosmology, they may be able to answer this question. According to the Tipitaka, the space above and below the visible galaxy contains many different realms of existence. The space above the visible galaxy is the location of the Celestial Realm and the Brahma Realm whereas the space below the visible galaxy is the location of the Peta Realm, the Asurakaya Realm, and the 456 sites of the Hell Realm. These realms of existence are full of different kinds of inhabitants in the same way that the earth is. However, these realms and their inhabitants are made up of refined elements; hence, they are not visible to the physical eyes.

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<sup>18</sup> *Majjhimanikāya Uparipaṇṇāsa*. Bangkok: Mahamakut Buddhist University Press, vol. 22, no. 325, p.408-409

In addition to the realms of existence located above and below the visible galaxy, there are other realms of existence which lie parallel to the Human Realm on earth. These include the hidden city of Lap Lae, the realm of earth sprites, the realm of wood nymphs, the realm of sylphs, the realm of disembodied spirits, ghosts, etc. One may ask how the realms of existence with different levels of refinement can lie parallel to our earth. The situation is not unlike that of radio waves or television waves, which have different frequencies but occupy more or less the same air space.

### 3) Time

Einstein's Theory of Relativity proposed in 1915 (2458 B.E.) allows the scientific community to know that time differs at different points of the galaxy. This fact has been revealed by the Lord Buddha over 2,500 years ago. Time in the different realms of existence is different. Time in the Celestial Realm, the Hell Realm, and the Human Realm is vastly different. For example, time in the Hell Realm is many million times slower than that in the Human Realm.

Someone explains the time difference in each of the 31 realms of existence by comparing these 31 realms of existence to a 31-storey building. The building is covered in complete darkness, and only its rooftop is bright. The rooftop represents Nibbana. The clocks on different floors run at different speeds. Living beings undergo the round of rebirth within this building. The lowest floor is occupied by Hell Beings. The second floor is occupied by Asurakayas. The third floor is occupied by Petas. The fourth floor is occupied by animals. The fifth floor is occupied by humans. The 6<sup>th</sup> to 11<sup>th</sup> floors are occupied by Celestial Beings. The 12<sup>th</sup> to 27<sup>th</sup> floors are occupied by Form Brahma Beings. And the 28<sup>th</sup> to 31<sup>st</sup> floors are occupied by Non-Form Brahma Beings.<sup>19</sup> The following table shows a comparison between a day in the different realms of the hell realm of Mahanarok, its equivalent in human years and the slowness of time in the Hell Realm of Mahanarok.

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<sup>19</sup> Som Sujira (2550 B.E.), "Einstein discovers, the Lord Buddha sees", p. 93

<b>1 Day in Mahanarok</b>	<b>Equivalent in earth years</b>	<b>X Times slower than earth time</b>
<b>Site 1:</b> Sanjivamahanarok	9 million earth years	3,285 million times
<b>Site 2:</b> Kalasuttamahanarok	36 million earth years	13,240 million times
<b>Site 3:</b> Sanghatamahanarok	144 million earth years	52,560 million times
<b>Site 4:</b> Roruvamahanarok	576 million earth years	210,240 million times
<b>Site 5:</b> Maharoruvamahanarok	2,304 million earth years	840,960 million times
<b>Site 6:</b> Tapamahanarok	9,216 million earth years	3,363,843 million times
<b>The time in Site 7: Mahatapamahanarok and Site 8: AVECIMAHANAROK is so slow compared to earth time as to be incalculable.</b>		

### **Time in the Black Hole vs. Time in the Hell Realm of Mahanarok**

It was discovered that time near a black hole is vastly different from the time in other areas of the galaxy because a black hole's mass is extremely compact and it exerts a phenomenally high force of gravity. Professor Pairut Ratchayapong said that if a black hole has ten times the mass of the sun, the time at just one centimeter outside the event horizon will be 6 million times slower than in an area at some distance from it.

Astrophysicists found that at the center of the Milky Way Galaxy and at the center of other galaxies, there is a gigantic black hole with a tremendous mass but its mass cannot be accurately determined. If a mass of 100,000 times that of the sun is used, the time at just one centimeter outside the event horizon will be 60 billion times slower than the time found elsewhere such as earth.

So what is the black hole at the center of the galaxy? Why does it have such a highly compact mass? And why is time in the black hole so slow? It appears that according to the Tipitaka, the area below the center of the Milky Way Galaxy may very well be the location of the Peta Realm, the Asurakaya Realm, and the Hell Realm of Mahanarok. According to the Tipitaka, Mahanarok is covered in complete darkness and time in Mahanarok is extremely slow compared to the time on earth as shown in the table above. Perhaps in the future, astrophysicists may be able to find out more information about the black hole and it may well be that what they will find will correspond to what is written in the Tipitaka.

#### 4) The Speed of Light and the Speed of Mind

According to Einstein's Theory of General Relativity, nothing on earth can travel as fast as or faster than light. This belief may change once scientists can find the way to measure the speed of human mind. When that happens, they will know that the speed of mind is so fast as to be incomparable to the speed of light. The Lord Buddha said, "Behold monks, I have yet to see anything that can change as fast as the mind. How fast is it? An analogy of its speed is not easy to find."<sup>20</sup>

The Lord Buddha and His Perfected Disciples had trained their minds so well that by their psychic power, they could easily perform many supernatural feats. They could travel at great speeds. They could disappear from one place and reappear in another place in an instant.

In the Brahmnimantanika Sutta, the Lord Buddha tells us, "On one occasion, I was staying at the foot of a large tree in Subhagavana near the city of Ukkattha. At the time, the Brahma Being "Baka" was of the view that the Brahma Realm was a place of permanence and changelessness. My mind discerned his thought so I disappeared from the foot of the tree and reappeared in the Brahma Realm in the time it takes for someone to stretch his arm."<sup>21</sup> It is written in the Moggalana Sutta that on one occasion, Venerable Mahamoggalana wished to have a Dhamma conversation with the Brahma Being "Tissa". He disappeared from the Jetavana Temple and reappeared in the Brahma Realm in the time it takes for someone to stretch his arm.<sup>22</sup>

To disappear from earth which belongs to the Sense Sphere and to reappear in the Brahma Realm of the Form Sphere in the time it takes for someone to stretch his arm or about 1 second is considered to be extremely fast. We know that it takes light 8 minutes to travel from the sun to earth, both of which are in the Sense Sphere. And it takes light 5 hours to travel from the sun to Pluto, both of which are in the Sense Sphere. But it takes just 1 second for the Lord Buddha and Venerable Mahamoggalana to travel from earth to the Brahma Realm. This attests to the fact that the human mind can travel at such a high speed as to be incomparable to the speed of light.

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<sup>20</sup> *Aṅguttaranikāya Ekanipāta*. Bangkok: Mahamakut Buddhist University Press, vol. 32, no. 49, p. 95

<sup>21</sup> *Brahmanimantanika Sutta. Majjhimanikāya Mūlapaṇṇāsa*. Bangkok: Mahamakut Buddhist University Press, vol. 19, no. 552, p. 441

<sup>22</sup> *Moggallana Sutta. Aṅguttaranikāya Chakkaniipāta*. Bangkok: Mahamakut Buddhist University Press, vol. 36, no. 305, p. 619

## 5) An Atom Corresponds to Paramanu

It is written in the Sammohavinodani Scripture the different units of measurement as follows: Paramanu, Anu, Tadjari, Rathajari, Ratharenu, Sikkha, Oka, Dhannamasa, Angula, Vidatthi, Ratana, Yatthi, Usabha, Gavut, and Yojana.

It also gives the definition of 1 Paramanu as being equal to  $1/82,301,184^{\text{th}}$  of one unhusked rice grain.

The committee of this book had measured different unhusked rice grains available in Thailand and found their lengths to be 8 mm, 8+mm, 8.5 mm, 9 mm, 10 mm, and 11 mm. They divided these lengths by 82,301,184 and found that 1 Paramanu has the following lengths.

$$1 \text{ Paramanu} = 0.80 \text{ cm}/82,301,184 = 9.72 \times 10^{-9} \text{ cm}$$

$$1 \text{ Paramanu} = 0.85 \text{ cm}/82,301,184 = 1.03 \times 10^{-8} \text{ cm}$$

$$1 \text{ Paramanu} = 0.90 \text{ cm}/82,301,184 = 1.09 \times 10^{-8} \text{ cm}$$

$$1 \text{ Paramanu} = 1.00 \text{ cm}/82,301,184 = 1.21 \times 10^{-8} \text{ cm}$$

$$1 \text{ Paramanu} = 1.10 \text{ cm}/82,301,184 = 1.33 \times 10^{-8} \text{ cm}$$

In science, an atom is 1 or 2 Angstroms in length where 1 Angstrom =  $1.0 \times 10^{-8}$  cm and 2 Angstrom =  $2.0 \times 10^{-8}$  cm

It is clear that the length of a Paramanu as calculated from unhusked rice grains of different lengths is between 1 and 2 Angstroms. Moreover, if we use the length of an unhusked rice grain of 8.23 mm and divide it by 82,302,184, we find the length of one Paramanu to be  $0.999 \times 10^{-8}$  cm or 1 Angstrom exactly.

### 10.6.3 Psychic Laws

Psychic Laws are the laws which govern the working of our mind. The Lord Buddha teaches that a human being is made up of body and mind, and the body does everything the mind tells it to do. The body cannot function without the mind in the same way that a computer cannot function without its software.

Our mind and our brain are two separate entities. If we compare the brain to a computer then the mind is the user. Most scientists today are of the belief that the brain and the mind are one and the same. According to science, we see an object because light from the object is reflected to our eyes. The reflected light is transformed into an electric signal and the electric signal is transmitted to the brain causing us to see the object.

According to the Tipitaka, an additional step is needed before we can see the object: information of the image must first be transmitted from our brain to our mind. If this last step does not take place, we will not be able to see the object. To prove this fact, think of the time when you look at something absentmindedly, you do not see the object and even if you do, you are not aware of it.

Physicists found that the smallest units that make up a human being are electron, proton, and neutron. Biologists found that the smallest units that make up a human being are cells and genome. Chemists found that the smallest units that make up a human being are a handful of elements. These scientists cannot yet explain what causes these groups of electrons, protons, neutrons, cells, and elements to cry, laugh, be happy, be sad, be sensitive, be bold, be hateful, be angry, be giving, be proud, etc. Most scientists do not believe that the mind exists as a separate entity.

Wilson said that human social behavior is has a genetic basis in that human behavior is determined by certain genes, and these genes are shared by similar ethnic groups. Moreover, there are certain genes that are specific to humans. For example, Mr. Green is a beggar; his action is determined by certain genes specific to humans. Mr. Green likes or enjoys having a pet; his action is determined by general genes because animals have these genes as well.

Biologists attribute love, greed, anger, and self-sacrifice to the biological structures of the human body. Biologists do not have to consider such phenomena as the human mind or the human soul, which cannot be tested using physical means.

If Mr. Green performs good deeds because his genes force him to do them, then his deeds are not at all praiseworthy. But we praise those who perform good deeds because they do them of their own free-will. To say that human behavior is determined by certain genes is to say that there is no such thing as a good person or an evil person.<sup>23</sup>

### **U.S. and Soviet's Psychic Spies**

It does not matter how many scientists still do not believe that mind exists as a separate entity from the body but apparently the U.S. and Soviet governments do. During the cold war era, both these countries had formed a special unit called the psychic spies. As advanced as they were in terms of science and technology, they paid a great deal of attention to the subject of the human mind.

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<sup>23</sup> Somparn Promta (2540 B.E.), "Buddhism and Science", p. 136, 185, 186, 189

At the height of the cold war, the U.S. government discovered that the Soviet government had been conducting psychic research. In response, the U.S. had also formed their own unit of psychic spies. Officers of this unit employed psychic techniques to see a target thousands of miles away. This unit of psychic spies had met with success many times but not every time. For example, when Brigadier General Jemtasia was abducted by Italian terrorists, Chief Warrant Officer Joseph Macmonagle knew where the Brigadier General was by using his psychic power. Long before the U.S. stealth bomber was known to the public, Sergeant Major Melville Riley had drawn a picture of the Stealth B2. And hours before the warship Stark was destroyed in international waters, Captain Paul Smith had already seen the entire tragedy. These incidents defy scientific explanation.

In order to come up with a scientific explanation about psychic sight, in 1976 (2519 B.E.), the U.S. Air Force had asked Dale Graff who was a civil aviation engineer at Air Force Base Wright Patterson in Ohio to conduct a psychic sight research to see if it could be used to locate missing planes, missing pilots or missing personnel. Graff went to conduct his research at Stanford Research Institute in northern California. This institute has produced several successes in the use of psychic sight under lab conditions for the CIA. His research has led Graff to believe that it is possible to employ psychic sight to locate missing objects.

Even former U.S. President Jimmy Carter was impressed by psychic sight. In 1978 (2521 B.E.), a top secret hi-tech Soviet plane crashed in Zaire or the Democratic Republic of the Congo. CIA wanted to find it before the Soviets did. Having failed to do so, a psychic spy was asked to study a picture of the plane (TU22). Several hours later, the plane was found. Its actual location was within a few miles of the location provided by Graf's psychic spy. The incident so impressed President Carter that he said, "It did not only happen but the psychic lady was successful while the spy satellite failed. I had no idea that the CIA chief had asked for her help. She immediately went into meditation and during meditation gave both the latitude and longitude of the location. We focused the satellite camera at the given location and there the plane was."

This event gave Dale Graff a new career. In 1989 (2532 B.E.), he became the director of psychic spies at Fort Meade in Maryland. In those days, scientists and people at high levels were still skeptical about the subject. One leading scientist said to Graf that he would not believe it even if it was true. Most scientists regard psychic sight as pseudoscience based on fraud and magic. Nonetheless, from the middle of 1970 to 1980

(2513 – 2523 B.E.), the U.S. army had spent a total of several million dollars on psychic research.<sup>24</sup>

#### 10.6.4 The Law of Kamma

The Law of Kamma agrees with science in that it is about cause and effect. All of the knowledge in the Tipitaka is based on cause and effect. The Law of Kamma includes natural laws as well as the cause and effect brought about by living beings through their Kamma. Kamma means an intentional act. Every action has consequences as in the following sayings: You reap what you sow. Good deeds beget good fruits. Evil deeds beget evil fruits.”<sup>25</sup>

According to the Tipitaka, there are two categories of Kamma: Kamma performed in the current existence, and Kamma performed in previous existences. Kamma performed in the current existence and its consequences are acceptable to science, since they are evident in our daily life. For example, a good student gets good grades; a hard-working and honest employee is trusted and treated kindly by his employer; a murderer is pursued by the police, etc.

However, the Kamma performed in previous existences, which is yielding its fruits in the current existence, is not a concept well accepted by science. For example, according to the Tipitaka, Einstein was brilliant in the current existence because he had pursued Wisdom Perfection in his previous existences. Therefore, he was born with a bright Wisdom Sphere at the center of his body. This Wisdom Sphere can be seen by those who have achieved elevated meditative attainments. When Einstein died, his Wisdom Sphere followed his Refined Human Body to the hereafter.

Most scientists believe Einstein’s brilliance came from his brain. They studied his brain along with the brains of ordinary people expecting to find a real difference between Einstein’s brain and other brains. The findings would help them to understand what set Einstein apart so that they could use the findings to help ordinary people develop their brains. In reality, it cannot be done because intelligence does not reside in the brain.

In the case of a retarded child, biologists explain the cause of retardation as problems occurring in certain genes. But one thing scientists cannot explain is why certain children are born physically handicapped while most children are born physically normal.

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<sup>24</sup> UBC: The History Channel (1998), “Psychic Spies” (Produced by Towers Production, Inc.)

<sup>25</sup> *Samuddaka Sutta. Samyuttanikāya Sagāthavagga.* Bangkok: Mahamakut Buddhist University Press, vol. 25, no. 903, p. 487

The Lord Buddha has an answer to this problem, however. A particular child is born handicapped due to a certain misdeed committed in a previous existence. Most children are born normal because the same misdeed was not committed by them in a previous existence.

### **10.6.5 General Laws**

General Laws are the laws of nature that demonstrate the interconnectedness of the above four groups of laws: Biological Laws, Physical Laws, Psychic Laws, and the Law of Kamma. For example, when our Lord Buddha was conceived, 10,000 Lokadhatu quaked. The conception is defined by Biological Laws but they can exert an effect on Physical Laws in that 10,000 Lokadhatu quaked.

Science has found that plants respond to human thoughts, words, and actions. Such discoveries correspond with the teachings contained in the Tipitaka.

#### **1) Plants Respond to Human Behavior**

A while ago, the Daily Mail Newspaper reported the findings of a research carried out with plants. The research showed that talking to plants helped them to grow. Researchers also found that certain sounds stimulate certain plant genes while other sounds cause them to slow down. It was reported in this newspaper ten years ago that Prince Charles said in an interview that in regards to his special gardening technique, he simply talked to the plants. He said it was very important to do so because the plants did respond to him.<sup>26</sup>

Luther Burbank, an American biologist could cause walnut trees to grow more quickly. Normally, it takes at least 30 years for a walnut tree to mature. He said that in growing plants, besides scientific knowledge, one must also be loving and kind. When he was trying to grow thorn-less cactus, he would say to it lovingly and kindly that it had nothing to fear. It had no need for thorns for self-protection. Amazingly, the cactus eventually became thorn-less.

One well-known Thai scientist, Dr. Aj-ong Choomsai na Ayuthaya had his students spread love and kindness to some Mexican aster flowers at Chulalongkorn University in a study supervised by the Faculty of Botany. The flowers were separated into two plots. Flowers in both plots were given water, fertilizer, and everything else in equal amounts except that the flowers in one plot received the current of love and kindness from the

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<sup>26</sup> Manager (2550 B.E.), “Researchers Find Talking to Plants Really Works” (online)

students. What happened was that these flowers grew significantly faster and there were flowers on each plant. These plants grew taller than the plants in the other plot by 49.2%.

It is written in the Commentary Tipitaka that on one occasion, the caretaker of King Pasendikosala's orchard called "Ganda" made an offering of one mango to the Lord Buddha. Having drunk the juice from it, the Lord Buddha said to Ganda, "Prepare the soil for planting this mango pit at that spot." After the pit had been placed in the ground, the Lord Buddha washed His hands over the buried pit. As soon as the Lord Buddha finished washing His hands, a mango tree 30 meters tall with a trunk the size of a plough suddenly appeared complete with many ripe fruits for the Bhikkus to enjoy.<sup>27</sup>

One may wonder how such things could happen. The answer lies in the fact that they happened according to General Laws where there exists the relationship between Psychic Laws and Biological Laws. It was the Lord Buddha's incomparable love and kindness that caused the mango to grow and bear ripe fruits within minutes. This supernormal ability is not confined to the Lord Buddha alone in the same way that the attainment of Arahatsip is not confined to Him only. Anyone who knows the way and practices it accordingly can attain Arahatsip.

During the time of Luang Pu Wat Paknam, a similar kind of thing happened. On one occasion, Luang Pu brought a mango pit into Vijja Dhammakaya Workshop (the place where elevated levels of meditation were practiced). As soon as the mango pit was planted, a sapling appeared and continued to grow into a mature mango tree. The entire process took just 30 minutes. The mango tree immediately began to flower and yield fruits. Luang Pu let everyone taste the delicious fruits.<sup>28</sup> The student can learn more about these kinds of incidents in V. Vatcharavee's book.

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<sup>27</sup> *Suttantapiṭaka Aṭṭhakathā-khuddaka-nikāya Gāthā-Dhammapada*. Bangkok: Mahamakut Buddhist University Press, vol. 42, p. 297

<sup>28</sup> V. Vatcharavee (2540 B.E.), "Phramonkolthepmuni, the Great Master", p. 78

## 2) Water and Human Behavior<sup>29</sup>

One scientific research that is well-known the world over is the research conducted by Dr. Masaru Emoto. His research has given proof to the connectedness of Psychic Laws, Biological Laws, and Natural Laws. His research shows that our physical, verbal, and mental conduct has an effect on water in that it can acknowledge and distinguish different human behaviors.

He began his experiment by placing a drop of sample water on a petri dish and leaving it in the freezer for two hours until the water turned into ice crystals. He then looked at the ice crystals under the microscope with a magnifying power of 200X – 500 X. He took images of the water crystals in a -5 Celsius freezer. Dr. Emoto and his team had taken around 10,000 images of ice crystals in 4 ½ years since he began his research in 2537 B.E.

He had carried out different experiments with water. Some water samples were exposed to different kinds of music. Some had different words pasted on the side of the bottle. Some was tap water. Others came from natural sources in different parts of the world. Etc.

Words pasted on the side of the sample water bottle were not hand-written but typed. On one sample water bottle was pasted the words “thank you”. On another was pasted the words “stupid fool”. The sample water bottles were left standing overnight before being put in the freezer. Images of the water crystals labeled “thank you” were beautiful and balanced. They were similar to the crystals of the sample water exposed to the music “Goldberg Variations”, a reflection of gratitude.

Images of the water crystals labeled “stupid fool” were not beautiful. They were like the crystals of the sample water exposed to heavy metal music expressing dissatisfaction with society. On one sample water bottle was pasted the words “I want revenge and I’m going to kill you”, its crystals were especially ugly and scary.

On January 17, 2538 B.E., there was an earthquake at Hanchin-Avaji in the city of Kobe. Three days later, Dr. Emoto’s team took images of the crystals of the tap water from the earthquake area. The images made one’s hair stand on end. It appeared that fright and grief were reflected in the tap water. However, three months later, help from all over the world poured into Kobe and this time images of the water crystals appeared to reflect warmth and harmony.

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<sup>29</sup> Masaru Emoto (2004), “The Hidden Messages in Water”, translated by Sasitorn-Sasivimon Ratchanee, p. 87-138

Another interesting experiment was conducted by Dr. Emoto. This time he sent a letter to 500 students all over Japan in order to test the effect of telepathy on water. At 2 p.m. on February 2, 2540 B.E., he placed a glass of dirty tap water from Jinagawa in Tokyo on his desk. He had asked his students from all over Japan to send via telepathy at this time love and the wish to turn the glass of dirty water into clean water.

Images of the water crystals after the experiment were completely different from those before the experiment. Whereas the images were scary before, now they were beautiful. It brought home the ancient saying, “Water is the mirror of the mind.” Dr. Emoto’s team was nearly moved to tears. They were grateful to all who participated in the experiment. It only goes to show that different people’s thought coming from whatever distance could be united as one stream of thought.

A similar point is shown in the Mahāparinibbana Sutta. On the way to attain Complete Nibbana in Kusinara, the Lord Buddha had a rest by the wayside. He told Venerable Ananda to fetch Him some water because He was thirsty. Venerable Ananda said that 500 wagons had just gone across the stream and the water would still be muddy...The Lord Buddha continued to tell Venerable Ananda to fetch Him water.

After the third time, Venerable Ananda took the alms-bowl and went to the stream. When he approached the stream he saw that the water was clean and clear, and thought it had to be due to the Buddha-Power. He fetched some water for the Lord Buddha.<sup>30</sup> This incident shows how Psychic Laws can have an effect on Physical Laws.

### **The Most Beautiful Water Crystals**

Dr. Emoto’s team wanted to see what kind of effect “chanting” would have on water crystals. This time, they used the water from Fujiwara Dam in Minakami Village, Kumma Province. As usual, they took images of the water crystals before the experiment. They looked like a face of someone in agony. On the day of the experiment, Reverend Hoki Kato, the Abbot of Juhoin Temple in Omiya sat chanting by the dam for an hour. After the chanting, images of the water crystals from the dam were taken. This time, they were beautiful and radiant. The crystal was hexagonal with smaller hexagonal crystals inside it. The crystals were self-illuminating. There was a half-moon at the center with some sort of aura. People said the image made them feel the tremendous power and energy of the human soul and human consciousness.

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<sup>30</sup> *Māhāparinibbāna Sutta. Dīgha-nikāya Mahāvagga.* Bangkok: Mahachulalongkornrajavidyalaya University Press, vol. 10, no. 191, p. 139-140

This experiment brings to mind an incident that happened during the Lord Buddha's time. At one point, the city of Paisali was plagued by famine, non-humans' exploitation, and cholera causing a large number of people to lose their lives.

The Lord Buddha told Venerable Ananda to learn the Ratana Sutta and chant verses of protection (Paritta) all over Paisali. Having learnt the Ratana Sutta, Venerable Ananda filled an alms-bowl with water, stood at the city gate, and contemplated the Buddha-Virtue before chanting verses of protection beginning with "Yankinci..." all over Paisali. At the same time, he sprinkled sacred water everywhere causing all non-humans to flee. When Venerable Ananda started the verse "Yanidha Bhutani..." drops of water burst into the air and fell on those who were sick causing them to recover instantly.<sup>31</sup>

Since this incident, chanting Paritta and preparing sacred water has become a Buddhist tradition. It is also not surprising that the water prepared by a righteous monk while chanting Paritta or verses of protection should be sacred and has the power to cure illnesses and remove all kinds of harm. The reason is the righteous monk's chanting has turned ordinary water into sacred water.

## 10.7 How to Verify the Teachings in the Tipitaka

There are two categories of knowledge in the Tipitaka: crude knowledge and refined knowledge. Crude knowledge is general knowledge. It can be studied and proven within a short period of time. Such knowledge includes the Five Precepts. A person who observes the Five Precepts does not kill, does not steal, does not commit sexual misconduct, does not lie, and does not drink or smoke. As a result, a person who observes the Five Precepts can live happily.

Refined knowledge includes knowledge about the Hell Realm, the Celestial Realm, the Peta Realm, the Hell Realm of Lokanta, Nibbana, etc. Refined knowledge includes statements like a person is born wealthy in this existence because he had accumulated a lot of merit by offering alms to righteous monks in his previous existences; a person is born poor in this existence because he had not practiced generosity in his previous existences. Such statements are difficult to prove. Refined knowledge is not widely accepted especially by most scientists because they believe it cannot be scientifically proven.

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<sup>31</sup> *Dhammapadaṭṭhakāthā Aṭṭhakathā-khuddaka-nikāya Gāthā-Dhammapada.* Bangkok: Mahamakut Buddhist University Press, vol. 43, p. 145-150

It is true that refined knowledge cannot be proven by scientific means. However, it can be proven by our mind.

In science, research and experiments employ the five sense-faculties: eyes, ear, nose, tongue, and body. The sixth sense-faculty, our mind, has been completely disregarded. Science regards our mind as being part of our brain. In Buddhism, our mind assumes a highly important role. Our mind is not part of our brain but it is a separate entity altogether.

To find proof for things that concern our earth, we must employ an appropriate sense-faculty. For example, form can be proven using the physical eyes. Sound can be proven using our ears. Smell can be proven using our nose. Taste can be proven using our tongue. Something is soft or hard can be proven using our sense of touch. But in reality these five sense-faculties must work in concert with our mind, the sixth sense-faculty, in order to complete the process.

Our mind can be employed to prove the reality of all the phenomena existing in the refined realms. The only sense-faculty that can be employed to prove the reality of the Hell Realm, the Celestial Realm, Nibbana, the Hell Realm of Lokanta, etc., is our mind. The other five sense-faculties cannot be employed at all. Any person can prove the reality of these refined realms if only he is willing to train his mind until he can achieve such elevated meditative attainments that he can employ his mind to see these places. Then he will know that they exist.

Disregarding our sixth sense-faculty robs us of a myriad of experiences not to mention endless knowledge. At the very basic level, when we feel love, anger or fear, we feel it with our mind. When we feel comfortable, relaxed, joyful, we feel it with our mind. And yet, scientists attribute these feelings to our brain and attempt to explain them by measuring brain activities.

In trying to prove the activities of our mind by employing our eyes, ears, nose, tongue, and body is like what Eddington had to say about science. He said that science cannot lead humans directly to reality; it can only lead us to the shadow of reality. It shows that scientific methods have limitations. And they will continue to have limitations especially if they continue to disregard the most important sense-faculty of all, our mind.

Scientific methods are like learning about the size of a stone by measuring the sound or the wave created by the stone when dropped into the water. Having collected all the necessary data and made all the necessary calculations, they can say what the mass of the stone is. It may be said that science learns about nature by inference.

In Buddhism, direct experiments conducted through our mind can be considered to be a scientific method. The reason is whoever practices according to the Lord Buddha's Teachings can bear witness to the things that the Lord Buddha teaches. Since the Lord Buddha's time, close to a million individuals have been able to do this.

It is often said in the scientific community that the teachings of different religions such as Buddhism are about faith. They are not knowledge or truth because they cannot be scientifically proven. Actually, as far as most people are concerned, scientific knowledge is also a matter of faith because they did not conduct the experiments themselves because these are too difficult or because people do not care to do them. We are told that water is made up of 2 atoms of hydrogen and 1 atom of oxygen but most of us have no idea what a water molecule looks like. Most of us are not qualified to conduct the necessary experiments. Einstein said that at the time only 12 people in the world could really understand his Theory of General Relativity.

Therefore, such scientific knowledge as water is made up of 2 atoms of hydrogen and 1 atom of oxygen, the equation  $E = mc^2$ , a hydrogen atom is made up of one proton, one electron, and one nucleus is not so different from Buddhism's knowledge about the Hell Realm, the Celestial Realm, etc. The reason is although the knowledge in Buddhism can be personally proven, very few people have taken the time and effort to do it.

### **ASSIGNMENTS**

After you have finished studying this chapter, complete the test and the exercises provided in the workbook before proceeding to the next chapter.



# **Chapter 11**

## **Medical Science**

### **According to the Tipitaka**

# Chapter 11

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## Medical Science According to the Tipitaka

### 11.1 An Overview of Medical Science According to the Tipitaka

### 11.2 Healthcare According to the Tipitaka

11.2.1 Caring for Our Body

11.2.2 Caring for Our Mind

### 11.3 Medical Care According to the Tipitaka

11.3.1 Diseases and Their Causes

11.3.2 Different Diseases

11.3.3 The use of Medicine

11.3.4 Dr. Jivaka Komarabhacca's History

11.3.5 Curing Diseases

1) Of the Body

2) Of the Mind

### 11.4 A Comparison between Medical Science According to the Tipitaka and Modern Medical Science

## **Concepts**

1. Healthcare means keeping our body and mind healthy and strong. It is different from medical care which means curing diseases.
2. According to the Tipitaka, healthcare and medical care apply to both our body and our mind, since human beings are made up of body and mind. These two entities are connected and they have an impact on each other. Therefore, it is very important that both the body and the mind are taken care of and cured simultaneously.
3. Healthcare and medical care of the body according to the Tipitaka are quite similar to modern day healthcare and medical care in principle. However, healthcare and medical care for the mind require the use of “Dhamma Medicine” in the form of “Punna” or merit. Punna keeps our mind pure, bright, and clear.

## **Objective**

To enable the student to learn about medical science according to the Tipitaka and how to compare it with modern day medical science.

## Chapter 11

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### Medical Science According to the Tipitaka

#### 11.1 An Overview of Medical Science According to the Tipitaka

Three topics are covered in this chapter: Healthcare according to the Tipitaka, medical care according to the Tipitaka, and the comparison between medical science according to the Tipitaka and modern day medical science.

Healthcare means keeping the body and mind healthy and strong whereas medical care means curing diseases. Healthcare is the means to prevent diseases.

Healthcare and medical care according to the Tipitaka involve the body and the mind, since human beings and animals are made up of body and mind. These two entities are connected and they have an impact on one another. Therefore, it is important that both the body and the mind are considered together in healthcare and medical care.

Healthcare and medical care of the body according to the Tipitaka are quite similar to modern day healthcare and medical care in principle. Healthcare and medical care of the mind according to the Tipitaka require the use of “Dhamma Medicine” in the form of “Punna” or merit. Merit keeps our mind pure, bright, and clear.

The last topic to be covered is the comparison between medical science according to the Tipitaka and modern day medical science. There are two categories of modern day medical science: western medicine and alternative medicine.

Modern day medical science is beginning to pay more attention to the human mind, since many researches have shown that our mind has an effect on our health. This is in agreement with the Lord Buddha’s Teachings. If the mind is kept healthy and strong through the accumulation of merit, we will see an improvement in our physical health. A person struck by an illness can quickly recover if he can accumulate a large amount of merit. Some similarities between modern day medical science and medical science according to the Tipitaka will also be presented.

## 11.2 Healthcare According to the Tipitaka

Healthcare according to the Tipitaka involves both the body and the mind. Although these two entities cannot be separated, here for the sake of convenience, they will be discussed separately.

### 11.2.1 Caring for Our Body

A healthy body is healthy, strong, and long-lived.

One Arahant exemplified the picture of health. His name was Venerable Pakula Thera. He had been a householder for 80 years before entering the monkhood. During his 80 years as a householder, he had never fallen ill.<sup>1</sup>

He also enjoyed a long lifespan in that he lived to be 160 years old. In all his life, he had never fallen ill. His excellent health was the fruit of the merit accumulated by offering medicine to different Lord Buddhas in his previous existences, etc.

Nonetheless, it is important to take care of our body in the current existence so that it can be healthy, strong, and long-lived. In the Pathamaanayusasa Sutta, the Lord Buddha gives us five ways to care for our body: beneficial factors, exercising moderation, consuming easily digestible food, getting enough rest, and practicing chastity.

#### 1) Beneficial Factors

It means factors that are conducive to our health. These include Avasa or dwelling, Gocara or a place habitually frequented, conversation, people, Bhojana or food, season, and posture.<sup>2</sup> These seven beneficial factors not only support meditation practice but also help it to progress. Factors involved in healthcare include Avasa or dwelling, Bhojana or food, season, and posture.

**Avasa** means dwelling. A dwelling that promotes good health must have a good environment, fresh air, no pollution; it must not be too hot or too cold, etc. Such a dwelling is conducive to good health and a long lifespan.

**Bhojana** means food. Food that promotes good health must be replete with nutrition, free of contaminants, etc.

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<sup>1</sup>*Manorothpuranī Aṭṭhakathā-Aṅguttaranikāya Ekanipāta*. Bangkok: Mahamakut Buddhist University Press, vol. 32, p. 471

<sup>2</sup>*Aṭṭhakathā-Suññata Sutta. Papañcasudhanī Aṭṭhakathā-Majjhimanikāya Uparipannāsa*. Bangkok: Mahamakut Buddhist University Press, vol. 23, p. 33

**Season** A season is a subdivision of the year, marked by changes in weather, ecology, and hours of daylight. There are generally three seasons: the rainy season, the cold season, and the hot season. Season plays an important role in one's health and it is one cause of sickness especially during the period where one season is ending and another season is beginning. If the body cannot adjust to a sudden change in the weather especially if the change is dramatic, it may get sick or even die.

**Posture** The body assumes different postures at different times. We stand, walk, sit, lie down, etc. These different postures play an important role in our health. It is necessary that we change our posture frequently to allow the wind and blood in our body to circulate normally. When we stay in one posture too long, our body can become fatigued and may cause us to become ill. It is written in the Commentary that our Lord Buddha exercises His body by changing His posture regularly.<sup>3</sup>

During the Lord Buddha's time, a Bhikku's daily routine allowed him to assume different postures at different times. He practiced meditation, went on an alms-round, did walking meditation, swept the temple grounds, fell asleep mindfully, etc. About walking meditation, the Lord Buddha has this to say, "It causes the food that was eaten, drunk, chewed, and tasted to be easily digested and this results in few illnesses." Bhikkus in those days exercised their bodies by employing "contortionism" and relaxed their bodies by employing massages.<sup>4</sup>

Besides a regular change in posture, it is also important that a good posture is maintained at all times whether one is sitting, standing, walking or lying down. The Lord Buddha teaches that it is important to sit upright during meditation practice.<sup>5</sup> He also teaches us to sleep on our right side.

According to the study conducted by the Thai Health Promotion Foundation, the best sleep posture is lying on one's right side. The reason is the body is not putting its weight on the heart, therefore, allowing it to pump normally. Transportation of food from the stomach to the small intestine proceeds well and backache symptoms can be alleviated.<sup>6</sup>

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<sup>3</sup> *Aṭṭhakathā-Mūlpariyāya Sutta. Papañcasudhanī Aṭṭhakathā-Majjhimanikāya Mūlapaṇṇāsa.* Bangkok: Mahamakut Buddhist University Press, vol. 17, p. 35

<sup>4</sup> *Jarā Sutta. Samyuttanikāya Mahāvalavagga.* Bangkok: Mahamakut Buddhist University Press, vol. 31, no. 962-963, p. 62

<sup>5</sup> *Mahavibhaṅg Part I.* Bangkok: Mahamakut Buddhist University Press, vol. 2, no. 178, p. 257

<sup>6</sup> Thai Rath (2550 B.E.), "Which sleep posture is safe and helps one to sleep soundly?" (online)

## 2) Exercising Moderation

It means that one exercises moderation in everything. For example, one exercises moderation in regards to food. Venerable Sariputra said, “Bhikkus, whether you are eating fresh or dry food, do not eat too much or too little but eat just enough. Eat mindfully.”<sup>7</sup>

When we eat just enough food, we will feel just right. A person who habitually eats too much can suffer from indigestion. Some people may even die as in the cases of the millionaire Kotuhalika Bhaddavatiya and the naked ascetic Korakkattiya.<sup>8</sup>

Eating just enough is different for different people depending on the body’s condition and gender. For the Lord Buddha and the Bhikkus during the Lord Buddha’s time, one meal was sufficient for them. The reason is a Bhikku’s work involves meditation practice and giving Dhamma lectures. The Lord Buddha says, “I have just one meal a day...I have few illnesses. I feel active and healthy.”<sup>9</sup>

Venerable Sariputra had this to say about when to finish a meal, “Stop eating just 4 – 5 bites before you feel full and drink some water. That should be satisfactory for a Bhikku who is earnestly working toward Nibbana.”<sup>10</sup> The reason for this is to leave some room in the stomach for the food that is being held in the esophagus and working its way to the stomach. Once all of the eaten food reaches the stomach along with the water, one will feel full.

## 3) Consuming Easily Digestible Food

Whether the food we eat is easy or difficult to digest depends at least on two factors: the type of food and familiarity with the food. Meat is difficult to digest while fruit and vegetables are easy to digest. Familiarity with the food has to do with local cuisine or the way the food is prepared in a particular locality. For example, some people may be familiar with good quality food that has been carefully prepared. If they were to consume food that had not been carefully prepared, they might find the food difficult to digest. In the worst cases, death may result as in the case of King Pasendikosala. He was traveling to

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<sup>7</sup> *Khuddaka-nikāya. Theragāthā*. Bangkok: Mahachulalongkornrajavidyalaya University Press, vol.26, no. 982, p. 500-501

<sup>8</sup> *Aṭṭhakathā-Kosambiya Sutta. Aṭṭhakathā-Majjhimanikāya Mūlapaṇṇāsa*. Bangkok: Mahamakut Buddhist University Press, vol. 19, p. 418

*Manorothpuranī Aṭṭhakathā-Aṅguttaranikāya Ekanipāta*. Bangkok: Mahamakut Buddhist University Press, vol. 33, p. 113

*Pāṭika Sutta. Dīgha-nikāya Pāṭikavagga*. Bangkok: Mahamakut Buddhist University Press, vol. 15, p. 7

<sup>9</sup> *Bhaddalī Sutta. Majjhimanikāya Majjhimpāṇṇāsa*. Bangkok: Mahamakut Buddhist University Press, vol. 13, no. 134, p. 150-151

<sup>10</sup> *Khuddaka-nikāya Theragāthā*. Bangkok: Mahachulalongkornrajavidyalaya University Press, vol.26, no. 983, p. 500-501

Rajagarh and on the way there he had a meal prepared by some local people. The food did not agree with him. This combined with having been exhausted by the long travel eventually caused him to die.<sup>11</sup>

Indigestion was a big problem for the Lord Buddha and the Bhikkus. It was for this reason that they consumed soft boiled rice in the morning. Soft boiled rice relieves hunger, relieves thirst, facilitates wind movement in the body, cleanses the colon, and aids the digestion of food that has not been digested.<sup>12</sup>

#### 4) Getting Enough Rest

It means not being out carousing at night. Going out at night causes one to stay up late or not get any sleep at all. Being out carousing at night causes one's health to deteriorate quickly. Getting enough sleep is beneficial to one's health. Modern medicine has found that staying up late at night causes the body to weaken, and when the situation is continued for a long time, it can shorten one's lifespan.<sup>13</sup>

#### 5) Practicing Chastity

People who practice chastity especially ascetics tend to be healthier and longer-lived. Recently, a Chinese news agency reported the death of a 160 year-old Chinese monk. The monk had lived at Ling Chuan Temple in An Yang Amphoe, Her Nan Province. His name was U Ewin Ching. He had been born in 1838 (2381 B.E.) and had lost both of his parents when he was 15 years old. He became a monk after the death of his parents and had been a monk until 1998 (2541 B.E.) when he died of old age.<sup>14</sup>

In Thailand, many monks lived to be more than 100. Venerable Lamai Thitamano, for example, was 135 years old when he passed away. He was the abbot of Suan Pa Sa Moon Prai Sangha Residence in Mueng Amphoe, Petchaboon Province. Even when he was very old, his hair was still black and his health was good.<sup>15</sup> There are a large number of long-lived monks who have achieved elevated meditative attainments and are now more than 400 years old. A sixth of these enlightened monks are now living in Kwai Mountain in Laos.<sup>16</sup>

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<sup>11</sup> *Papañcasudhanī Aṭṭhakathā-Majjhimanikāya Majjhimpapañāsa*. Bangkok: Mahamakut Buddhist University Press, vol. 21, p. 209

<sup>12</sup> *Yāgu Sutta. Aṅguttaranikāya Pañcakanipāta*. Bangkok: Mahamakut Buddhist University Press, vol. 22, no. 207, p. 350-351

<sup>13</sup> Piraporn Boodnun (2551 B.E.), "Staying up late is hazardous to your health" (online)

<sup>14</sup> Manager (2550 B.E.), "The body of a 160 year-old Chinese monk in Her Nan does not decompose" (online)

<sup>15</sup> Kom Chad Luek (2550 B.E.), "135 year-old monk, older than the Japanese woman in the Guinness World Record" (online)

<sup>16</sup> Phrathepyanmahamuni (2549 B.E.), "Incredible but true" (online), [www.dmc.tv](http://www.dmc.tv)

These examples attest to the fact that chastity practice promotes good health and longevity. It may be that these righteous monks were completely free from problems common to most householders. They have spent their lives studying the Dhamma-Vinaya and practicing meditation. Householders can practice chastity by observing the Eight Precepts on important Buddhist occasions such as the Buddhist Holy Day, the Rains-Retreat, etc.

### **11.2.2 Caring for Our Mind**

Having a healthy mind means having a pure, bright, and clear mind. The highest level of mental health is achieved when the mind is completely free from defilements or when Arahatsip is attained. Therefore, every Arahats enjoys maximum mental health.

Our mind is more important than our body because our mind is the boss and our body is the servant. It is therefore highly important that we take very good care of our mind.

The Lord Buddha tells us that our mind was pure and bright in its original state. However, it has become gloomy, weak, and sensitive once it is covered with defilements. The defiled mind becomes prone to anger, sadness, grief, stress, etc.

In caring for our mind, we must attempt to restore it to its original state so that it can be pure and bright once again. We can do this by accumulating merit. We can accumulate merit by giving alms, observing the Precepts, chanting, practicing meditation, listening to Dhamma lectures, etc.

Merit has the power to cleanse our mind of defilements. The more defilements are cleansed away, the purer our mind will be, and the closer it will be to its original state. A person possessing a pure mind is imperturbable, steady, and calm. Maximum mental health is attained when the mind is devoid of defilements as in the case of Arahats.

## **11.3 Medical Care According to the Tipitaka**

Medical care means curing diseases. The Lord Buddha tells us that diseases come from eight causes.

### **11.3.1 Diseases and Their Causes**

The 8 causes of diseases are mentioned in the Abadha Sutta as follows.

- 1) Diseases caused by “bile”
- 2) Diseases caused by “phlegm”

- 3) Diseases caused by “wind”
- 4) Diseases caused by a combination of “bile, phlegm, and wind”
- 5) Diseases caused by “climate change”
- 6) Diseases caused by “remaining too long in the same posture”
- 7) Diseases caused by “injury”
- 8) Diseases caused by “the fruit of evil Kamma”<sup>17</sup>

The Pali word for bile is “Pittan”. Bile is a dark green to yellowish brown fluid. There are two kinds of bile: bile outside the gallbladder and bile inside the gallbladder. The gallbladder is a small pouch that sits just under the liver. Bile outside the gallbladder bathes the body on the inside. When this kind of bile goes wrong, the eyes will turn yellow, the head will feel dizzy, and the body will shake and itch. When bile inside the gallbladder goes wrong, it causes madness in that a person does the things that he should not do, say the things that he should not say, think the things that he should not think.<sup>18</sup>

The Pali word for phlegm is “semhan”. It is a white to light yellow gel. Our body contains about one alms-bowl of phlegm; most of it is inside our stomach. Normally the floor of our stomach smells like a corpse. Phlegm helps cover up the stench in our stomach the way a sewer cover covers up the stench of raw sewage.<sup>19</sup>

“Wind” here means one of the elements inside our body. It includes wind that blows upward, wind that blows downward, wind in the stomach, wind in the gut, wind that blows along the inside of the body, inhaled breath, exhaled breath, etc. When wind in the body goes wrong, one feels weak in the hands and feet; one becomes blind; one becomes lame.<sup>20</sup> In an extreme case, wind can cause death. For example, the wind in one Bhikku’s body pierced his heart and his abdomen such that his gut spilled out onto the bed. In the midst of his suffering, he continued to keep his mind quiet and still and he eventually attained Arahatship just before he died.<sup>21</sup>

Diseases can also result when bile, phlegm, and wind inside the body go wrong.

Extreme climate that shows up as being too hot, too cold, etc., can cause people to get sick.

<sup>17</sup> *Ābādh Sutta. Aṅguttaranikāya Dasakanipāta*. Bangkok: Mahamakut Buddhist University Press, vol. 38, no. 60, p. 192

<sup>18</sup> *Paramatthajotika Aṭṭhakathā-khuddaka-nikāya Khuddakapāṭha*. Bangkok: Mahamakut Buddhist University Press, vol. 39, p. 76

<sup>19</sup> *Ibid.*, p. 77

<sup>20</sup> *Sārathapakathāsini Aṭṭhakathā-samyuttanikāya Khandhavalavagga*. Bangkok: Mahamakut Buddhist University Press, vol. 27, p. 194

<sup>21</sup> *Aṭṭhakathā-Mahāsatipatṭhāna Sutta. Sumamgalavilāsini Aṭṭhakathā-dīgha-nikāya Mahāvagga*. Bangkok: Mahamakut Buddhist University Press, vol. 14, p. 311

Remaining too long in the same posture such as sitting too long, standing too long can cause people to get sick.

When the body is injured by being stabbed, beaten, hit, bit by animals, infected, etc., the body becomes ill.

Evil deeds committed in our previous existences or in our current existence can cause us to become ill. For example, if a person had killed many animals or people in his previous existence(s), the fruit of his evil Kamma can cause him to have cancer.

Every intentional deed that we have ever performed, be it good or evil, is recorded in our mind. Wholesome deeds are the source of Punna or merit whereas unwholesome deeds are the source of Papa or demerit. It is Papa or demerit that causes us to get sick .

The above 8 causes of diseases can be summarized into 2 causes: physical causes and mental causes. The first 7 causes are physical ones whereas the last cause comes from our mind in the form of Papa or demerit.

It is understandable that modern medical science pays no attention to the fruit of past evil Kamma because they do not believe in it. And yet it exists and it remains to be personally proven using Buddhist methodology.

### 11.3.2 Diseases According to the Tipitaka

The Pali word for diseases is “Roga”. It is written in the Commentary that “Roga” means hurt or malevolence.<sup>22</sup> In other words, “Roga” or diseases give the body and the mind pain and difficulty. The Lord Buddha said that in the past, there were only 3 diseases: craving, hunger, and aging. But the exploitation of animals caused the number of diseases to increase to 98.<sup>23</sup> These diseases existed during the Lord Buddha’s time. However, the number of diseases is very many more today and there are an increasing number of strange new diseases such as AIDS, bird flu, SARS, and most recently tularemia. It is reported in the news that tularemia is so virulent that it can be deployed as a biological weapon.

These 98 diseases are the manifestation of the fruit of evil Kamma, specifically the exploitation of animals. These diseases can be put into 6 categories: skin diseases, wind

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<sup>22</sup> *Saddhammapajjotikā Aṭṭhakathā-khuddaka-nikāya Mahānidde*. Bangkok: Mahamakut Buddhist University Press, vol. 65, p.132

*Aṭṭhakathā- Dhātuvibhaṅg Sutta. Aṭṭhakathā-Majjhimanikāya Uparipaññāsa*. Bangkok: Mahamakut Buddhist University Press, vol. 23, p. 377

<sup>23</sup> *Khuddaka-nikāya. Suttanipāta Cūlavagga*. Bangkok: Mahachulalongkornrajavidyalaya University Press, vol. 25, no. 314, p. 572

diseases, abdominal diseases, diseases of different organs, respiratory diseases, and miscellaneous diseases.

**1) Skin Diseases:** These include leprosy, boils, smallpox, acne, ringworm, herpes, blister, moist scabies, dry scabies, pustules, wart, frambesia, etc.

Leprosy: Skin lesions are the primary external sign. Left untreated, leprosy can be progressive, causing permanent damage to the skin, nerves, limbs and eyes. Contrary to folklore, leprosy does not cause body parts to fall off, although they can become numb or diseased as a result of secondary infections; these occur as a result of the body's defenses being compromised by the primary disease. Secondary infections, in turn, can result in tissue loss causing fingers and toes to become shortened and deformed, as cartilage is absorbed into the body.

Boils: Boils are bumpy, red, pus-filled lumps around a hair follicle that are tender, warm, and very painful. They range from pea-sized to golf ball-sized. A yellow or white point at the center of the lump can be seen when the boil is ready to drain or discharge pus. In a severe infection, an individual may experience fever, swollen lymph nodes, and fatigue.

Smallpox: Smallpox was an infectious disease unique to humans. Smallpox localized in small blood vessels of the skin and in the mouth and throat. In the skin it resulted in a characteristic maculopapular rash and, later, raised fluid-filled blisters. The World Health Organization certified the eradication of smallpox in 1979.

Acne: Acne is a common human skin disease, characterized by areas of skin with scaly red skin, blackheads and whiteheads, pinheads, pimples, large papules and possibly scarring.

Ringworm: Ringworm is a common and highly infectious skin infection that causes a ring-like red rash on the skin. Ringworm is highly contagious and is easily spread among people.

Herpes: Herpes causes several distinct medical disorders. Common infection of the skin or mucosa may affect the face and mouth, genitalia, or hands. A cure for herpes has not yet been found.

Blister: A blister is a small pocket of fluid within the upper layers of the skin, typically caused by forceful rubbing (friction), burning, freezing, chemical exposure or infection. Most blisters are filled with a clear fluid called serum or plasma. However, blisters can be filled with blood (known as blood blisters) or with pus (if they become infected).

Scabies: Scabies is a contagious skin disease caused by a parasitic mite and characterized by intense itching. There are two kinds of scabies: moist scabies and dry scabies.

Pustules: Pustules are small, inflamed, pus-filled, blister-like lesions on the skin surface.

Wart: A wart is generally a small, rough growth, typically on a human's hands or feet but often other locations that can resemble a cauliflower or a solid blister.

Frambesia: Frambesia or yaws is a common chronic infectious disease that occurs mainly in the warm humid regions of the tropics with characteristic bumps on the skin of the face, hands, feet and genital area. The organism that causes yaws is a bacterium called a spirochete. Yaws begins when the spirochete enters the skin at a spot where it was scraped, cut or otherwise compromised. At that site a painless bump arises and grows. It is the mother yaw. The glands in that area are often swollen. The mother yaw heals, leaving a light-colored scar. The mother yaw is followed by recurring ("secondary") crops of bumps and more swollen glands. These bumps may be painless like the mother yaw or they may be filled with pus, burst and ulcerate.

**2) Wind Diseases:** These diseases are due to wind attack inside the body causing many symptoms such as dizziness, faintness, nausea, etc. If the symptoms are violent, a person can faint or die as in the cases of epilepsy, belching, etc.

Epilepsy: Epilepsy is a common and diverse set of chronic neurological disorders characterized by seizures and a long term risk of recurrent seizures. These seizures may present in a number of different ways.

Belching: Belching is a condition in which gas in the stomach is vented through the mouth.

**3) Abdominal Diseases:** These are diseases that occur in the abdominal cavity such as intestinal tumor, dysentery, diarrhea, diarrhea and vomiting, fatal indigestion, etc.

Cholera: Cholera is an infection in the small intestine. The primary symptoms of cholera are profuse, painless diarrhea and vomiting of clear fluid.

Fatal indigestion: Fatal indigestion is caused by overeating as in the case of the naked ascetic, Korakkhattiya. He was an ascetic that imitated the way of a dog. He walked and ate like a dog. He over-ate his last meal and died as a result of fatal indigestion.

**4) Diseases of Different Organs:** These are diseases that occur in different parts of the body such as the eye, ear, nose, tongue, head, etc., as in headaches, oral diseases, dental diseases, paralysis, hemorrhoids, etc.

Hemorrhoids: Hemorrhoids can be described as masses or clumps ("cushions") of tissue within the anal canal that contain blood vessels and the surrounding, supporting tissue made up of muscle and elastic fibers.

Trachoma: Trachoma is an infectious disease caused by a type of bacteria which produce a characteristic roughening of the inner surface of the eyelids.

Rhinitis: Rhinitis is a medical term for irritation and inflammation of the mucous membrane inside the nose.

Paralysis: Paralysis causes a certain part of the body such as the arm, leg, etc., to become paralyzed.

**5) Respiratory Diseases:** These are diseases of the respiratory system such as cough, asthma, common cold, bronchiectasis, etc.

Asthma: Asthma is a common chronic inflammatory disease of the airways characterized by variable and recurring symptoms, reversible airflow obstruction, and bronchospasm. Common symptoms include wheezing, coughing, chest tightness, and shortness of breath.

Common Cold: The common cold is a viral infectious disease of the upper respiratory tract which affects primarily the nose. Symptoms include coughing, sore throat, runny nose, sneezing, and fever which usually resolve in seven to ten days, with some symptoms lasting up to three weeks.

Bronchiectasis: Bronchiectasis is a disease state defined by localized, irreversible dilation of part of the bronchial tree caused by destruction of the muscle and elastic tissue.

**6) Miscellaneous Diseases:** These are other diseases not covered under the first five categories of diseases. They include fever, diabetes, bile disorders, internal heat, jaundice, etc.

Fever: Fever is one of the most common medical signs and is characterized by an elevation of body temperature above the normal range of 36.5–37.5 °C (98–100 °F) due to an increase in the temperature regulatory set-point. This increase in set-point triggers increased muscle tone and chills.

Diabetes: Diabetes is a group of metabolic diseases in which a person has high blood sugar, either because the pancreas does not produce enough insulin, or because cells do not respond to the insulin that is produced.

Bile Disorders: When bile attacks, it causes the eyes to turn yellow and other symptoms such as dizziness, itchiness, chills, etc.

Jaundice: Jaundice is a yellowish pigmentation of the skin, the conjunctival membranes over the whites of the eyes, and other mucous membranes caused by increased levels of bilirubin in the blood. During the Lord Buddha's time, some Bhikkus had jaundice because during the fall season, they had to walk in the rain, across muddy fields, and at times under the hot sun. These weather conditions induced bile attack symptoms.

### 11.3.3 The Use of Medicine According to the Tipitaka

Medicine according to the Tipitaka came directly from nature because everything in nature can be used as medicine if we know its medicinal properties. It is written that on one occasion, the physician Jivaka Komarabhacca went around the city of Taxila covering a radius of 16 kilometers investigating different plants. He could not find a single plant that did not have some medicinal properties. The different kinds of medicine mentioned in the Tipitaka and the Commentary can be divided into 6 groups: urine, the five kinds of medicine, herbs, salts, Mahavikat, and miscellaneous.

#### 1) Urine

Urine when freshly collected from one's body can be used as a base for pickling medicinal fruits such as myrobalan.<sup>24</sup> Such pickles have different medicinal properties.

Urine was a principle form of medicine and it is part of the Bhikku's "Nissaya-4". During the ordination ceremony, the Preceptor would teach the ordinand about Nissaya-4 which includes finding shelter at the foot of a tree, going on an alms-round, using discarded cloths, and drinking one's urine to treat one's illnesses. The Lord Buddha told His disciples that they should depend on urine for medicine,<sup>25</sup> for urine is readily available and it is harmless.<sup>26</sup>

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<sup>24</sup> *Aṭṭhakathā-Cattari Sutta. Paramatthadīpanī Aṭṭhakathā-khuddaka-nikāya Itivuttaka.* Bangkok: Mahamakut Buddhist University Press, vol. 45, p. 647

<sup>25</sup> *Vinayapiṭaka Mahāvagga.* Bangkok: Mahamakut Buddhist University Press, vol. 6, no. 87, p.172

<sup>26</sup> *Santaṭṭhi Sutta. Aṅguttaranikāya Catukakanipāta.* Bangkok: Mahamakut Buddhist University Press, vol. 35, no. 27, p. 83

## 2) The Five Kinds of Medicine

These include clarified butter, cheese, oil, honey, and cane juice. The Lord Buddha allowed Bhikkus to consume these items in order to cure jaundice.

Clarified butter means clear butter made from cow milk, goat milk, water buffalo milk, etc.

Cheese is made from cow milk, goat milk, water buffalo milk, etc.

Oil means sesame oil, Pan Pak Kad Seed oil, Ma-sang seed oil, rapeseed oil or oil refined from animal fats such as bear oil, fish oil, shark oil, lard, donkey oil.

Honey is a sweet food made by bees using nectar from flowers.

Cane juice is the sweet juice extracted from pressed sugar cane.

## 3) Herbs

Herbal medicine according to the Tipitaka comes from different parts of the plants: roots, plant extracts, leaves and stems, fruit, resin, etc.

Roots include medicinal roots such as turmeric, ginger, myrtle grass, sand ginger, lobed leaf Typhonium, galangal, vetiver grass, nut grass, rattan shoots, bamboo shoots, lotus rhizome, lotus root, etc.

Medicinal plant extracts are extracts of different parts of the plant used for medicinal purpose only. These include neem extract, kurchi extract, *Gymnopetalum cochinchinensis* extract, heart-leaved moonseed extract, acacia tomentosa extract, etc.

Medicinal leaves include neem leaves, kurchi leaves, *Gymnopetalum cochinchinensis* leaves, holy basil leaves, hairy basil leaves, cotton leaves, etc. Medicinal trees include sandalwood, eaglewood, etc.

Medicinal fruits include coralberry, long pepper, chili, myrobalan, beleric myrobalan, gooseberry, banana, dates, etc.

Medicinal plant resin includes resin from ferula, resin derived from boiling ferula stem, leaves, and bark, resin from young tantaka leaves, resin derived from boiling the stem and leaves of tantaka plant, resin from frankincense, etc.

## 4) Salts

Medicinal salts allowed by the Lord Buddha include sea salt, black salt, rock salt, salt lick, etc.

Sea salt is the salt obtained from seawater.

Black salt is the salt residue that contains a high amount of impurities and is normally used in shrimp and fish farms, fruit orchards.

Rock salt is mined from deposits that form underground.

A salt lick is a deposit of mineral salts used by animals to supplement their diet. A salt lick contains different kinds of salts such as sodium chloride, calcium salt, potassium salt, etc.

## **5) Mahavikat**

On one occasion, a Bhikku was bitten by a snake. He was permitted by the Lord Buddha to use the four kinds of Mahvikat medicine which include feces, urine, ash, and soil. On another occasion, a Bhikku drank a poisonous liquid and the Lord Buddha permitted him to drink water mixed with feces in order to induce vomiting so that poison could be removed from his stomach.

## **6) Miscellaneous**

Medicine belonging to the miscellaneous group includes pickled traditional medicine “Lonasoviraka”, powder medicine, cow feces, sesame, rice, cooked rice, clear rice water, mung bean, every kind of grains, permanganate solution, fish, beef, beef stock, screw pine, etc.

Lonasoviraka is a pickled preparation containing gooseberry, beleric myrobalan, every kind of grains, mung bean, cooked rice, banana, rattan shoots, screw pine, dates, bamboo shoots, fish, beef, honey, sugar cane juice, and salt. These ingredients are placed in a pot and covered tightly. The concoction is pickled for 1, 2 or 3 days. When the preparation is ready, it will taste and have the color of a java plum. It can cure wind problems, coughs, leprosy, jaundice, hemorrhoids, etc.

### **11.3.4 Dr. Jivaka Komarabhacca’s History**

One can see Dr. Jivaka’s statue in every traditional Thai medicine center to remind us of his great contributions to medicine. Dr. Jivaka was a court physician in the city of Rajagarh. He was the personal physician of our Lord Buddha and he also looked after the Bhikkus during the Lord Buddha’s time. He was an exceptionally gifted physician. He could cure diseases that the best physicians in those days could not cure and could do so quickly as well. He had employed different methods and many of them were similar to modern day medicine. He performed surgeries, removed toxic substances from the body by using what is now called detoxification, etc.

Dr. Jivaka was born in Rajagarh in the kingdom of Magadha. During the Lord Buddha's time, a very beautiful young woman called "Salavadi" was chosen to be the city's prostitute. Sometime later she gave birth to a baby boy. She did not wish to raise him and had her female slave drop him in a trash pile.

On the same day, Prince Abhaya was on his way to the palace and saw a flock of crows on the ground. He asked his page what attracted the crows and the page answered that it was a baby. The prince wanted to know if the baby was still alive and the page said it was. The prince had the page bring the baby to his palace to be raised by a wet nurse. The baby was later named Jivaka which meant "still alive", and was given the last name of Komarabhacca by the prince. When he was old enough, he asked the prince who his parents were.

Prince Abhaya told Jivaka that he did not know who his mother was but he was Jivaka's father, since he was the one that had him raised in the palace. Jivaka thought it necessary that he had a career, since he was not part of the royal family. And he decided to study medicine.

In those days, there was a famous medical school called "Disapamokha". It was located in the city of Taxila and that was where Jivaka went for his training. He was a gifted student in that he learnt every subject very quickly and very well. He had a good understanding of what he had learnt. Moreover, he had an excellent memory and could remember everything he had learnt. After seven years, Jivaka asked one of his teachers if he had completed his study yet.

His teacher told him to take along a spade while walking around Taxila covering a radius of 16 kilometers. During his walk, if he could find any plant that did not have any medicinal properties, he was to dig it up. Jivaka could not find a single plant that did not have some kind of medicinal properties and he returned to his teacher to report his findings. The teacher told him that he had completed his study. Jivaka returned to Rajagarh and began to cure sick people. It turned out that he could cure serious cases quickly and almost miraculously. He was appointed a court physician of Rajagarh and the personal physician of the Lord Buddha and His disciples. Some of his healing techniques were as follows.

### **11.3.5 Curing Diseases**

The methods employed in curing diseases of the body during the Lord Buddha's time were similar to modern day medicine. Patients were prescribed medicine to be taken orally, to be applied to skin, to be snuffed as in a nasal snuff, to be covered with smoke

from the burnt medicine, to be inhaled, to be poured down the throat. Treatments also included surgery, detoxification, etc.

## **1. Curing Wind Problems**

Several methods were used to cure wind problems. These included drinking oil cooked with alcohol, taking a medicinal steam bath in a tepee or tent, covering the patient with smoke from burnt medicinal leaves, baking the patient over a hot pit, bathing in water boiled with medicinal leaves, taking a hot bath, ingesting garlic, bloodletting in the cases of wind attacks at the chest and joints, etc.

**Drinking oil cooked with alcohol:** This method was used for treating Venerable Pilindavaccha. Alcohol used in cooking the oil must not be too much. There must be no color, smell or taste of alcohol in the resulting oil.

**Taking a steam bath in a tepee or tent:** This method was used to treat wind problems by forcing the body to sweat.

**Covering the patient with the smoke of burnt medicinal leaves:** This method was used when the medicinal steam bath did not work.

**Baking the patient over a hot pit:** This method was employed when taking a steam bath and covering the patient with the smoke of burnt medicinal leaves did not work. A hole the size of a man was dug in the ground and filled with hot coals then covered with dust and sand. Medicinal leaves were laid on top of the covered pit. The patient was covered with the oil that was used to cure wind diseases before lying down on the hot leaves and turning on each side from time to time.

**Bathing in water boiled with medicinal leaves:** This method was employed when baking the patient over a hot pit did not work. Leaves with medicinal properties were boiled in water and the resulting water was poured over the patient before taking a steam bath in a tepee or tent.

**Taking a hot bath:** This method was used when bathing in medicinal water did not work. The tub was filled with very warm water and the patient lied down in the warm bath to force the body to sweat.

**Bloodletting:** When Venerable Pilindavaccha suffered from wind attacks in the joints, the Lord Buddha had him treated using the bloodletting technique. If bloodletting did not work, blood would be removed using an animal horn.

The Lord Buddha did suffer at times from wind attacks in the abdomen. He was cured by consuming rice cooked with sesame seeds and mung bean. When Venerable Sariputra had the same ailment, he was cured by consuming garlic.

It is written in the Commentary that wind diseases could be cured by adding certain animal oils such as bear oil and lard into soft boiled rice cooked with water prepared from five kinds of medicinal roots. The soft boiled rice was consumed hot.<sup>27</sup>

### **1.1) Curing Boils and Small Pox**

One Bhikku had a boil. The Lord Buddha had his boil lanced and the cut was covered with medicine before being covered with gauze. If the cut itched, it was cleansed with water containing Pan Pak Kad powder. If the cut oozed, it was treated with medicinal smoke. If a tumor formed, it was removed using a lump of salt before covering the site with wound-healing oil. Excess oil was removed using an old but clean cloth.

On one occasion, Venerable Velatthasisa, Venerable Ananda's Preceptor had small pox and his robe stuck to his body due to blister fluid. His fellow monks wet his robe before pulling it off him. Later, the Lord Buddha permitted the use of powder medicine to treat boils, impetigo, acne, small pox, and strong body odor.

### **1.2) Curing Headaches**

Different methods were used to cure headaches. These included snuff, ointment for the head, inhaling medicinal smoke, etc.

On one occasion, the wife of a wealthy man living in the city of Saket had been suffering from headaches for 7 years. Several Disapamokha physicians had tried but could not cure her of her headaches. When Dr. Jivaka heard about her condition, he volunteered to cure her. Having checked her condition, he prepared a snuff by cooking different kinds of medicine in clarified butter, had his patient lie on her back and sniff the medicinal snuff. Having sniffed the special snuff just once, the woman was completely cured of her headaches.

One day, Venerable Pilindavaccha had a headache, the Lord Buddha told him to apply an ointment to his head but the headache still persisted. The Lord Buddha told him

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<sup>27</sup> *Tiṅsakakaṇḍavaṇṇanā Sikkhā Chapter 3*. Bangkok: Mahamakut Buddhist University Press, vol. 3, p. 1047

to sniff a medicinal snuff but that did not do it either. Finally, the Lord Buddha told him to inhale medicinal smoke and the headache was gone.

### **1.3) Miscellaneous Cures**

One Bhikku became ill after having drunk a charmed potion given him by a woman. The woman wanted the Bhikku to fall under her spell. The Lord Buddha had him drink some water mixed with the soil stuck to the blade of a plough. No explanation was given as to how the soil worked to neutralize the effect of a charm spell.

Another Bhikku suffered from constipation and the Lord Buddha had him drink alkaline water prepared from salt, ash, cow feces, etc. During the Lord Buddha's time, alkaline water prepared from these substances were used for washing clothes but the purpose of drinking alkaline water was to soften stool so that it could be passed more easily.

Another Bhikku suffered from jaundice and the Lord Buddha had him drink the liquid prepared from pickling myrobalans in cow urine. Jaundice could also be cured with clarified butter. King Candapajjoti suffered from jaundice and Dr. Jivaka treated him with clarified butter until he was cured.

One Bhikku had a skin problem and the Lord Buddha had him apply scented powder to his body. This is similar to the use of talcum powder to keep the body dry.

One Bhikku developed a rash all over his body. The Lord Buddha had him take a laxative, since the Bhikku was probably suffering from constipation and his body was trying to remove his body waste through his skin.

Venerable Pilindavaccha had dry, cracked feet and the Lord Buddha had him apply some foot medicine to his feet. When this did not work, the Lord Buddha had some foot oil prepared for him.

At one point, Venerable Sariputra suffered from internal heat, Venerable Mahamoggalana provided him with some lotus rhizomes and lotus roots. Having consumed these medicinal items, Venerable Sariputra was cured of internal heat.

### **1.4) Surgery during the Lord Buddha's Time**

Two surgeries are mentioned in the Tipitaka. One was the surgery of a wealthy man living in Rajagarh and another was the surgery of a wealthy man's son living in Benares. The surgeon in these two cases was Dr. Jivaka Komarabhacca.

### **1.5.1) The Surgery of a Wealthy Man Living in Rajagarh**

This wealthy man had been suffering from headaches for 7 years and even Disapamokha physicians could not cure him of his headaches. Some even gave the prognosis that he would die on the 5<sup>th</sup> day. Some said on the 7<sup>th</sup> day. King Bimbisara told Dr. Jivaka to treat the wealthy man.

Dr. Jivaka checked the wealthy man over and had the man lie on a bed. Dr. Jivaka tied the man to the bed, peeled back his scalp, and opened his skull at the joint. Dr. Jivaka removed two animals from the patient's head and showed them to the people. He said to them, "Take a look at these two animals, one is big and one is small. If they were not removed, and if the bigger animal pierced the skull and fed on the wealthy man's brain first, he would die on the 5<sup>th</sup> day. If the smaller animal fed on the wealthy man's brain first, he would die on the 7<sup>th</sup> day. Having removed the two animals, Dr. Jivaka sealed the skull joint, sutured the scalp, and applied wound-healing medicine to the surgery wound. After a three-week bed rest, the patient made a complete recovery.

### **1.5.2) The Surgery of a Wealthy Man's Son Living in Benares**

This man was afflicted with intestinal tumor causing him indigestion and difficulty urinating and defecating. His body became thin with a yellow hue and his ligaments stood out under his skin.

Dr. Jivaka looked at the man and asked the people to step outside while he tied the wealthy man's son to a post. Dr. Jivaka operated on the man by cutting open his abdomen and removing the tumor. Having replaced the man's intestine in the abdominal cavity, he sutured the cut and covered it with wound-healing medicine. Soon enough the man made a complete recovery.

## **1.5) Detoxification**

Three methods of detoxification were used altogether: detoxification by inducing frequent bowel movements, detoxification by doing walking meditation, and detoxification by having a medicinal steam bath.

### **1.6.1) Detoxification by Having Frequent Bowel Movements**

On one occasion, the Lord Buddha said to Venerable Ananda that His body was full of toxic substances and He wished to take a laxative. Venerable Ananda told Dr. Jivaka about this and the physician prepared a special laxative by baking 3 lotus stalks with different kinds of medicine.

Dr. Jivaka asked the Lord Buddha to inhale the smoke of the medicinal preparation. He said to the Lord Buddha that after inhaling the smoke of just one lotus stalk, He would have ten bowel movements and after having inhaled the smoke of all three lotus stalks, He would have altogether 30 bowel movements.

As Dr. Jivaka was on his way to the temple gate, he realized that with the Lord Buddha's body as it was, He would not be able to have all 30 bowel movements. However, if after the 29<sup>th</sup> bowel movement, the Lord Buddha took a bath, He would be able to have the 30<sup>th</sup> bowel movement.

The Lord Buddha discerned the physician's thought and did as he suggested. Having had all 30 bowel movements, Dr. Jivaka asked the Lord Buddha not to consume any food prepared with vegetable broth until His body returned to normalcy, which it did soon afterward.

### **1.6.2) Detoxification by Doing Walking Meditation**

In those days, the lay people in the city of Vesali were preparing increasingly rich food for the Bhikkus, causing their bodies to weaken and after a time suffer from various diseases.

Dr. Jivaka was concerned for the Bhikkus' health and asked the Lord Buddha for permission to make available space for doing walking meditation and building a hot house. And the Lord Buddha gave His permission.

Doing walking meditation is a form of exercise because one has to walk back and forth many times causing the body to perspire and toxic substances to be removed through perspiration.

### **1.6.2) Detoxification by Taking a Steam Bath**

A hot house was a place for taking a steam bath. Steam bath caused the body to perspire profusely allowing toxic substances to be removed from the body.

A hot house was a building with a wall all around it with just one opening. Inside the hot house there was a stove which was lit to give out heat. If the hot house was large, the stove was placed in the middle of it but if the hot house was small, the stove was placed to one side of the hot house. There was a vent on the roof to allow smoke to escape.

Inside the hot house there was a tub or a water trough to provide moisture and temper the heat from the stove. All around the stove, there were seats for Bhikkus to sit.

Outside the hot house, there were a pavilion, a well, and a pond so that after leaving the hot house, Bhikkus could wash their robes and hang them out to dry, bathe, etc. The pond was the place where Bhikkus bathed themselves after leaving the hot house.

## **2. Curing Diseases of the Mind**

Every living being is made up of body and mind. The two entities are closely connected in that one can exert an effect on another. When the body is sick, it can have an effect on the mind. Conversely, when the mind is sick, it can have an effect on the body. Therefore, in curing a disease, it is important to cure both the body and the mind.

When the cause of the disease is the manifestation of the fruit of one's misdeed either in one's previous existence or in one's current existence, the disease must be cured using Dhamma Medicine. Dhamma Medicine is gained by the accumulation of Punna or merit. If we were to compare Punna or merit with water and Papa or demerit with salt, a lump of salt in a glass of water will taste extremely salty. However, if we keep adding more and more water to the salt, it will get to the point where no saltiness can be detected at all. Likewise, the earnest accumulation of merit has the power to counteract the fruit of Papa or demerit.

Punna or merit can be accumulated by giving alms, observing the Precepts, practicing meditation, practicing Saccakiriya, listening to Dhamma lectures, etc. Food and medicine are necessary for the body; likewise, Dhamma Medicine or the accumulation of merit is necessary for the mind.

## 2.1) Curing Diseases by Listening to Dhamma Lectures

Listening to Dhamma lectures is one of the sources of Punna or merit called “Dhammassavanamaya” and as such, it has the power to cure diseases.

On one occasion, Venerable Mahakassapa Thera was very ill. The Lord Buddha visited him and gave him a Dhamma lecture on “Bojjhanga-7”. The Lord Buddha’s words so delighted the venerable monk that he recovered instantly.<sup>28</sup>

Venerable Mahamoggallana and Venerable Girimananda had also been cured of their diseases by listening to Dhamma lectures on “Bojjhanga-7” and “Sanna-10”; and so had the Lord Buddha. Other examples can be found in different Suttas such as the Pathamagelanna Sutta, the Vakkali Sutta, the Pathamagilana Sutta, the Gilana Sutta, the Anathapindikovada Sutta, etc.

## 2.2) Curing Diseases with Meditation Practice

Meditation practice is another source of Punna or merit called “Bhavanamaya”. In fact, meditation practice is the greatest source of merit.

It is written in the Kammavipakaja Sutta that a Bhikku became gravely ill as a result of a past misdeed. He cured his illness by practicing meditation, ignoring his pain and suffering at a place not far from where the Lord Buddha was.

The Lord Buddha saw him and said, “A Bhikku who can abandon all Kamma...is imperturbable and has no need for medicine.”<sup>29</sup>

The Lord Buddha had employed meditation practice to cure some of His illnesses. When the Lord Buddha was near the time to attain Complete Nibbana, He became gravely ill. He practiced meditation until all of the symptoms subsided.

## 2.3) Curing Diseases by Practicing Saccakiriya

Practicing Saccakiriya means recalling a deed of merit or a deed that one or the person to be cured has performed and based on that deed the person should be cured of the disease.

In one previous existence, our Lord Buddha was a Yogi practicing asceticism in the Himavanta Forest. One day, he left the forest in order to visit a friend called “Mandabaya”.

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<sup>28</sup> *Paṭhamgilanna Sutta*. Bangkok: Mahachulalongkornrajavidyalaya University Press, vol. 19, p. 128, and *Dutiyaḡilanna Sutta*. Bangkok: Mahachulalongkornrajavidyalaya University Press, vol. 19, p. 129-131

<sup>29</sup> *Kammavipakaja Sutta*. Bangkok: Mahachulalongkornrajavidyalaya University Press, vol. 25, p. 209

On the same day, Mandabaya's son was bitten by a poisonous snake and fell unconscious. Mandabaya and his wife asked the Yogi for help. The Yogi said that he would perform Saccakiriya. He placed his hand on the boy's head and said,

“In all the years that I've been practicing asceticism, I truly believed in it for the first 7 days only. Still, I continued to practice asceticism for more than 50 years. May this truthful statement help revive this boy.”

Poison in the top half of the boy's body instantly disappeared into the ground. The boy opened his eyes, looked at his parents, and called out “Mom!” He then turned on his side and lay completely still. The Yogi told his friend that now it was time for the father to perform Saccakiriya. Mandabaya placed his hand on his boy's chest and said, “I don't always feel like welcoming ascetics who come to stay at my house and yet I let them stay. May this truthful statement help revive my son.”

Now, more poison disappeared into the ground so that the boy could sit up but he could not stand just yet. Mandabaya told his wife that it was now her turn to perform Saccakiriya. The wife said that her truthful statement could not be said in front of her husband but the husband told her to go ahead and say it. So she said,

“Son, the poisonous snake that bit you is not dear to me. Likewise, your father is not dear to me. May this truthful statement keep you safe from harm.” At this point, the boy recovered completely from the snake bite.<sup>30</sup>

The student can find more examples of curing diseases by performing Saccakiriya in the Tipitaka.

There are two factors involved in curing a disease with this method. Firstly, it has to do with the level of Truthfulness Perfection possessed by the performer of Saccakiriya. Secondly, it has to do with the level of merit and demerit of the sick person. If the performer of Saccakiriya possesses a high level of Truthfulness Perfection and the sick person possesses a large amount of merit and the demerit that caused him to get sick is loosening its grip, this method can yield an amazing result. But if the performer of Saccakiriya possesses a low level of Truthfulness Perfection and the sick person possesses a small amount of merit and the fruit of demerit is still very potent, then this method will not work.

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<sup>30</sup> *Maṇḍabāya Jātaka. Khuddaka-nikāya Jātaka.* Bangkok: Mahamakut Buddhist University Press, vol. 59, p. 831-841

## **2.4) Curing a Disease by Building a Refectory and Sweeping It**

On one occasion, Venerable Anuruddha Thera went to the city of Kapilavastu along with 500 monks. His relatives came to pay homage to him except for Princess Rohini. The venerable monk asked after her and was told that she had been suffering from a serious skin condition and felt too embarrassed to come out of her palace.

Venerable Anuruddha Thera advised the princess to build a refectory and after it had been built, she was to regularly sweep its floor, lay out seat cushions, and have a hot pot of water ready for the Bhikkus. Princess Rohini did as advised and her skin condition improved.

Later, Princess Rohini asked the Lord Buddha and His disciples to have a meal at her refectory. The Lord Buddha revealed to the princess the past misdeed that had caused her to suffer from the serious skin condition. In a previous existence, the princess sprinkled a woman's body with fishtail palm powder causing the woman's skin to be covered with hives. After the Lord Buddha's Dhamma lecture, Princess Rohini attained the Fruit of Sotapanna. Her complexion turned the fine color of gold and every trace of her skin condition disappeared completely.

Diseases can be cured by other forms of merit accumulation, the student can learn more by doing additional searches in the Tipitaka.

### **11.3.6 Nursing the Sick**

The Lord Buddha tells us that a person who nurses the sick should have five qualifications. He also tells us about patients that are easy to care for and patients that are difficult to care for.

#### **1) Qualifications of a Nurse**

- (1) A nurse must be able to dispense medicine.
- (2) A nurse must know what is favorable and what is not favorable for the patient. For example, he must know what type of food agrees or disagrees with the patient.
- (3) A nurse must care for the patient with love and kindness and not for rewards.
- (4) A nurse must not mind disposing of feces, urine, vomit, blood, pus or spit.

- (5) A nurse must encourage patients to see the benefit of doing certain things. A nurse must be able to encourage patients to be bold, brave, cheerful, and lively by telling them Dhamma stories at the right time.<sup>31</sup>

It is obvious that the Lord Buddha teaches us to nurse the patient's body and mind at the same time. The first four qualifications are for nursing the body and the last qualification is for nursing the mind.

## 2) Patients Who Are Easy to Care for

The Lord Buddha tells us that if a patient has the following attributes, he will be easy to care for. These attributes include:

- (1) The patient knows what is good for him. For example, he knows what type of food agrees with him.
- (2) The patient exercises moderation. For example, he knows how much food to eat.
- (3) The patient willingly takes the necessary medications.
- (4) The patient gives an accurate description of his condition.
- (5) The patient endures the pain and suffering caused by his illness.<sup>32</sup>

Patients who do not have the above five attributes will be difficult to care for.

## 11.4 A Comparison between Medical Science According to the Tipitaka and Modern Medical Science

Modern day medicine includes western medicine and the five categories of alternative medicine as mentioned in chapter 2. For the comparison, three points will be made: medical science according to the Tipitaka vs. holistic medicine; healthcare and medical care for the body; and healthcare and medical care for the mind.

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<sup>31</sup> *Dutiya-Upaṭṭhāka Sutta. Aṅguttaranikāya Pañcakanipāta.* Bangkok: Mahachulalongkornrajavidyalaya University Press, vol. 22, no. 124, p. 204-205

<sup>32</sup> *Paṭham-Upaṭṭhāka Sutta. Aṅguttaranikāya Pañcakanipāta.* Bangkok: Mahachulalongkornrajavidyalaya University Press, vol. 22, p. 203-206

### **11.4.1 Medical Science According to the Tipitaka vs. Holistic**

#### **Medicine**

There are two paradigms to modern medical science: Mechanical Materialism and Holism.

**Mechanical Materialism:** According to this paradigm, a human body is viewed as a machine whose working mechanism can be explained by natural science especially physics and chemistry. According to this paradigm, the human body is divided into compartments. When a particular compartment is not working properly, that compartment is repaired. It views a human being as consisting of two parts: body and mind but the two are not connected. The mind is viewed as being robot-like in that it is devoid of feeling, thought, intention, and purpose.

**Holism:** According to this paradigm, a human body is viewed as having two parts: body and mind and the two are connected. Separation of body and mind is done for practical purposes but eventually different components of the two parts are connected together. Life cannot be adequately explained by just physics and chemistry especially where the mind is concerned. Curing the human body requires the consideration of both body and mind.

Medical science according to the Tipitaka shares a similarity with holism in that the mind and the body are connected. However, medical science according to the Tipitaka has greater depth because it understands how Papa or demerit stored in the human mind is one of the causes of physical and mental illnesses. When Papa or demerit is the culprit, Dhamma Medicine is needed to help lessen the effect of Papa or demerit so that one can recover properly.

### **11.4.2 A Comparison in the Area of Healthcare**

Four points of comparison will be made: the balanced approach during the Lord Buddha's time vs. the present time; medicine during the Lord Buddha's time vs. the present time; surgery during the Lord Buddha's time vs. the present time; and detoxification during the Lord Buddha's time vs. the present time.

## **1) The Balanced Approach during the Lord Buddha's Time vs. the Present Time**

One of the causes of diseases is remaining too long in one posture. The Lord Buddha and the Bhikkus during the Lord Buddha's time prevented diseases by changing their posture regularly. A Bhikku's lifestyle is such that he can change his posture regularly. He practices meditation. He goes out on an alms-round. He does walking meditation. He sweeps the temple grounds. He lies on his right side when he goes to sleep. He maintains physical flexibility by employing "contortionism". He relaxes his muscles by using massages. These are the ways that a Bhikku exercises his body.

These routines make up the balanced approach to good health. The balanced approach is the way to cure diseases and keep the body in good health. It calls for balancing the body structure through keeping a balanced posture at all times, realigning the body structure when necessary, physical exercise, and massages.<sup>33</sup>

## **2) Medicine during the Lord Buddha's Time vs. the Present Time**

The kinds of medicine used during the Lord Buddha's time are now finding their ways into alternative medicine and western medicine especially herbal medicine. Traditional Thai medicine employs many herbs described in the Tipitaka. More importantly, everything in nature has some kind of medicinal properties. Therefore, every kind of herbal medicine and herbal extract is considered to be medicine according to the Tipitaka.

Urine was the main type of medicine for Bhikkus during the Lord Buddha's time. Dr. Bunjob Chunhasawadikun, the owner of Natural Healing Hospital said that urine can cure many diseases such as backache, joint pain, migraine, achiness, allergy, rashes, psoriasis, cancer, chronic colitis, etc.

Using urine to cure diseases requires that one drinks 100 c.c. of one's own urine before bedtime and in the morning. Urine works the way a snake made serum is used to cure a poisonous snake bite. A snake made serum is prepared by injecting a small quantity at a time of the snake venom into the horse's bloodstream; the resulting serum produced by the horse can be used as a snake made serum to cure the bite of that particular kind of poisonous snake.<sup>34</sup> Urine contains a certain amount of toxic substances eliminated by the body, when it is drunk, these toxic substances induce the body to produce a blood serum that has the potency to counter toxicity in the body.

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<sup>33</sup> Technical Division, Pundit Ashram (2549 B.E.), "The Balanced Approach to Good Health" pages 146-147, 223-224

<sup>34</sup> Manager (2548 B.E.), "Urine drinking in alternative medicine" (online)

### **3) Surgery during the Lord Buddha's Time vs. the Present Time**

In Thailand, the first surgery performed to remove a tumor from a patient's forehead took place on August 27, 2378 B.E. during the reign of King Rama III. The most well-known surgery in Thailand was carried out by Dr. Bradley, an American missionary. He had to remove a Bhikku's arm after it had been seriously injured by cannon blast.

These first surgeries in Thailand took place more than 2,000 years later than the surgeries described in the Tipitaka. Moreover, the surgeries performed by Dr. Jivaka were of a more delicate nature because it involved the brain and the intestine.

### **4) Detoxification during the Lord Buddha's Time vs. the Present Time**

Modern medicine believes that the human body has at least four avenues to detoxify itself: through exhaled breath, through sweat, through urine, and through feces.<sup>35</sup>

**4.1) Removal of toxic substances through exhaled breath:** This method depends on the working mechanism of our lungs. Volatile toxic substances are removed through exhaled breath. For example, when a person drinks alcohol, some of it will be removed through exhaled breath.

**4.2) Removal of toxic substances through sweat:** This method uses physical exercise, work, sauna, etc., to induce the body to remove toxic substances by sweating.

Today, sauna is a popular way to remove toxic substances from the body. The heat from the sauna allows toxic substances deep within the body to be removed. After the sauna, it is customary to bathe in cold water.

**4.3) Removal of toxic substances through urine:** This method depends on the working mechanism of our kidneys, which remove toxic substances from our blood and eliminate them from our body through urine.

**4.4) Removal of toxic substances through feces:** This method depends on the working mechanism of our liver. When our blood transports toxic substances to our liver, it removes the toxic substances through bile which transports the toxic substances to our large intestine to be eliminated from our body through feces.

Today, one popular way to detoxify our body is the use of coffee enemas. Other detoxification methods include the use of sauna, eating less food, eating fiber-containing food, fasting, eating just one kind of food such as guava, morning glory, etc., all day long.

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<sup>35</sup> The Arogaya Traditional Thai Medicine Clinic (2551 B.E.), "4 ways of detoxifying the body" (online) and Toxicity Center (2551 B.E.), "How can we survive when everything is toxic?" (online)

The food we eat everyday contains a certain amount of toxic substances; therefore, we need to remove these toxic substances which are accumulated in our body over time, hence, the need for detoxification.

### **Detoxification during the Lord Buddha's Time vs. the Present Time**

The different methods of detoxification used today were already being used during the Lord Buddha's time. Bhikkus during the Lord Buddha's time removed toxic substances from their body by working up a sweat through their daily activities: doing walking meditation, going on an alms-round, sweeping the temple grounds, etc.

The hothouse used during the Lord Buddha's time is today's sauna because they share the same concept and purpose. In fact, one can even say that today's concept of sauna might have been derived from the concept of hothouse in the Tipitaka.

Bhikkus during the Lord Buddha's time removed toxic substances from their body by taking a laxative or inhaling the smoke of burnt lotus stalks mixed with different kinds of medicine.

They detoxified their bodies by having just one meal a day. When we eat less, less toxic substances enter our body and the small amount of ingested toxic substances can be removed naturally by the body. It is for this reason that the Lord Buddha advocates eating just one meal a day.

### **11.4.3 A Comparison in the Area of Mental Healthcare**

Western medicine is beginning to pay more attention to the human mind. They now realize how the body and mind are connected and cannot be separated completely from each other. In fact, they exert an influence over each other.

Recently, researchers at Tel Aviv University discovered that stress causes cancer to grow because stress weakens the body's immune system. Professor Beneliyahu said that their study showed how fear played just as important a role as the damaged tissues in suppressing one's immune system.<sup>36</sup>

Many researches in the past decades have confirmed that chanting and meditation practice calm the mind and have the power to cure diseases.

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<sup>36</sup> Thai Rath (2551 B.E.), "Stress causes cancer to grow", (online)

## **1) Researches on How Chanting Cures Diseases**

There are 150 researches that show how chanting can miraculously cure diseases like heart disease and AIDS.<sup>37</sup> Dr. Vitan Tanavut, who is in charge of the “New Heart New Life Project” in Chiangrai Province, carried out a research by separating 393 heart disease patients into 2 groups. The first group was treated normally. The second group added chanting to their treatment. What he discovered was that patients in the second group did better in terms of overall improvement. The same result was obtained with AIDS patients in that the fatality rate of patients who chanted was less than half of those who did not chant.<sup>38</sup>

The texts used for the chanting include Jayamankalagatha, Mankala Sutta, Mettaparitta, Bojjhangaparitta, and Ratana Sutta. The Lord Buddha often chanted Bojjhangaparitta for sick Bhikkus. Chanting is a form of meditation practice. It causes the mind to be more balanced and calm. Such a state of mind facilitates the body’s return to its balanced state. Moreover, as one chants and keeps one’s mind on the Triple Gem, the Punna or merit earned helps lessen the potency of Papa or demerit stored in the mind causing the body to recover.

## **2) Researches on How Meditation Practice Cures Diseases**

If one conducts a Google search on this topic, one will find 545,360 entries in Thai and 409,000 entries in English under “Meditation therapy”. If other languages are included, there may very well be millions of entries. Such an overwhelming amount of information attests to the fact that the world is paying more attention to the human mind. And the new trend now is meditation and the Lord Buddha’s Teachings. People are practicing meditation and learning about the Lord Buddha’s Teachings as a means to cure diseases, improve mental health, and gain supernormal insight through elevated meditative attainments.

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<sup>37</sup> Manager Weekly (2547 B.E.) “Chanting quells AIDS-Heart disease” (online)

<sup>38</sup> Ibid

## **ASSIGNMENTS**

After you have finished studying this chapter, complete the test and the exercises provided in the workbook before proceeding to the next chapter.

# Chapter 12

## Conclusion

## **Chapter 12**

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### **Conclusion**

**The Conclusion of the Sciences as Explained in the Buddhist Scriptures (Tipitaka)**

## **Concepts**

The Lord Buddha's Teachings cover different sciences. All the existing sciences in the world can be divided into three main categories: the humanities, the social sciences, and natural and physical science. The Lord Buddha's Teachings as recorded in the Tipitaka contain information about these sciences but at a greater breadth and depth. This is the case because the Lord Buddha's knowledge is enlightened knowledge gained from Bhavanamayapanna or supernormal insight. It is not the kind of knowledge gained from listening, reading, or logical thinking.

Having studied this course, the student should realize how important it is to have a thorough knowledge of the Lord Buddha's Teachings, how they compare to the sciences according to the secular world, and how to apply them in his daily life.

## **Objective**

To enable the student to gain an overview of this course material, and how to apply what he has learnt in his daily life.

## Chapter 12

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### Conclusion

The sciences can be divided into three main categories: the humanities, the social sciences, and natural and physical science. The Lord Buddha's Teachings as recorded in the Tipitaka cover the sciences in all three categories but at a greater breadth and depth. This is the case because the Lord Buddha's knowledge is enlightened knowledge gained from Bhavanamayapanna or supernormal insight. It is not the kind of knowledge gained from listening, reading, or logical thinking.

Having studied this course, the student should realize how important it is to have a thorough knowledge of the Lord Buddha's Teachings, how they compare to the sciences according to the secular world, and how to apply them in his daily life.

#### **1. Having a Thorough Knowledge of the Lord Buddha's Teachings**

The student should strive to read every volume of the Tipitaka especially those containing the Vinaya and the Suttas. The contents are not too difficult to follow. Moreover, they can be readily applied to one's daily life. The contents of the Abhidhamma can be quite difficult to grasp because this Pitaka deals with the human mind, Nibbana, etc. To study the Abhidhamma, the student must first be an expert in both Pariyatti and Patipatti.

The Vinaya and the Suttas are contained in 33 volumes. If they are the Mahamakut Buddhist University's version which contains the Commentary, then there are altogether 74 volumes. It is well worth one's time to study these volumes because the Lord Buddha's Teachings are correct and perfect knowledge. This is in contrast to secular knowledge where it may take a scientist an entire lifetime to study and perform experiments just to come up with a law or a theory. And yet, the knowledge gained is not perfect knowledge and it has to be continually improved. The way to approach the study of the Vinaya and the Suttas is to look up a topic of the student's interest. It takes but a few minutes to gain the relevant information. It does not require a lifetime to study and perform experiments. It only takes several months to study every volume of the Tipitaka. The knowledge gained is invaluable and highly beneficial to oneself and to performing the duty of a virtuous friend.

Knowledge of the Tipitaka serves as life's compass. It helps us to make good decisions. It lets us know what we should or should not do. For as long as we still cannot search Dhamma knowledge ourselves through meditation, we must continue to study the Tipitaka, the enlightened knowledge of the Lord Buddha.

The Most Venerable Phrathepyanmahamuni (Luang Por Dhammajayo) and the Most Venerable Phrabhavanaviriyakhun had both completed the reading of the Tipitaka before they entered the monkhood. They have since continued to study the Tipitaka and practice the Dhamma simultaneously. They have employed their knowledge gained from the Tipitaka and Dhamma practice to build Wat Phra Dhammakaya and propagate Buddhism worldwide. It is the reason Wat Phra Dhammakaya can accomplish so much so quickly.

## **2. Comparing the Lord Buddha's Teachings with the Sciences in the Secular World**

In studying the Tipitaka, a deeper appreciation of its contents can be gained when one compares them with secular knowledge. In studying anything, more insight can be gained through a comparative study. For example, to better appreciate the value of peace, we can study the sufferings brought about by war. To better appreciate the value of each grain of rice, we can study what it was like during famine.

Likewise, when we compare the knowledge contained in the Tipitaka with secular knowledge, we can better appreciate the value of the Lord Buddha's Teachings. We will appreciate the fact that the Lord Buddha knew about the universe, the galaxies, their structure, the time difference in different parts of the galaxy, etc., long before astrophysicists discovered these phenomena.

We will come to appreciate the fact that however brilliant a scientific theory may be, it is still imperfect knowledge. In spite of the fact that the Lord Buddha said very little about the things concerning the physical world deeming it unnecessary for the attainment of Nibbana, what He did say far surpasses secular knowledge in both breadth and depth.

## **3. Practicing the Lord Buddha's Teachings in Our Daily Life**

To gain the maximum benefit from Dhamma knowledge, we must practice it in our daily life. Knowledge by itself is what the Lord Buddha calls "an empty sheet". Knowledge is useful only when it can be practiced for our own benefit. We can never put an end to suffering by listening to and reading the Lord Buddha's Teachings. We must practice what we listen to and read in order to embark upon the Path of Nibbana.

On one occasion, a Brahmin called “Ganakamoggalana” asked the Lord Buddha if the Bhikkus who listened to His Teachings could all attain Nibbana. The Lord Buddha told him that some did attain Nibbana but others did not. The reason for this was that there were Bhikkus who listened to the teachings but did not practice them correctly. Some did not practice them at all. In these cases, the Lord Buddha said that there was nothing He could do, since He was merely a guide.”

If the student studies the Lord Buddha’s Teachings and practices them, he will develop a deeper understanding of all the sciences according to the secular world and the sciences according to the Tipitaka. He will meet with happiness and success as a practicing Buddhist. He can be a virtuous friend to other people by sharing his knowledge with them. He can play his part in bringing peace, happiness, and prosperity to all of humanity.

### **ASSIGNMENTS**

After you have finished studying this chapter, complete the test and the exercises provided in the workbook.