非常有害的影響，諸如：吃太多肉會使動脈硬化，並產生許多放射性物質存留在骨髓內；吃太多肉的人也許更容易生癌。

根據一個德國科學家的研究，假使動物的身體挨上一刀，牠心中便產生强烈的恨，有毒的分泌液便流入血液內，全身肌肉就要因血液循環而滲透這種毒質。當我們吃肉時，毒質便傳入我們體內。結果，依照因果律，我們的心便被污染，因而必然產生貪婪肉慾。由於業力的作用，當機緣成熟時，「因」便將產生「果」。在某些情況下，也許會爆發不合理性而最仇恨的行爲，阻碍我們本具智慧的充份發展，最後導引我們步入毀滅之途。這些論點在過去，或多或少是不可相信的；但由於最近實驗的結果，已完全證明爲合理而眞實的。

密契根大學的梅康涅爾教授便作過此種實驗。這似乎是一種奇蹟：他發現從訓練良好的扁蠕蟲體內抽出某種荷爾蒙，注入未經訓練的扁蠕蟲，兩者便具有相同的能力。卽：未經訓練的扁蠕蟲，能像訓練過的扁蠕蟲一般地反應光線或電的刺激。這個實驗證明了：記憶不僅可以保存在蛋白質分子內，也可以保存在荷爾蒙內。因此，當我們吃的肉分泌有仇恨、毒害的荷爾蒙時，體內便充滿有害而低於人類的物質。依據身體和心識的關係來說，我們的心識便受污染，而有充滿恨和敵意的本能欲望。這便是爲什麼在一九五八年的達爾文一百週年紀念會上，來自世界各國的科學家唉息地說：二十世紀的人類仍然留着殘餘的獸性。這些獸性威脅着個人或全體人類的生存機會。

因此，聽聽下面的警告是重要的：「欲知世上刀兵刼，但聞夜半屠門聲。」這些字的意義，代表的不是提醒我們人類道德的普通誡律，它們反映出從徹悟因果關係而發現的輝煌眞理。戰爭起源於污染心所引起的愚昧思想；人類肉食的習慣存在一天，人類的心識便不容易淨化。

沒有一個聖人不是從自私和貪欲的枷鎖解脫出來的。以祛除塵世欲望來發現宇宙眞理是很寶貴的原則，將永遠爲聰明人所欣賞。但佛教提供偉大的方法——佛法，最近已從人類心理學的高度研究獲得證明。佛法被認爲是人類體悟最高智慧的最可靠而且可行的方法。

許多偉大的思想家最近都注意到，在五官感覺及其產品如經驗、推理和邏輯演繹以外，還存在着有超經驗的直覺和開悟。我們可以藉佛法，有效地達到最高智慧的最高階段。

因此，研究佛陀證悟過的教義，不僅對發現新科學原理和發明有用，並且對尋求世界永久和平及人類生存之道的種種努力有所幫助。

雖然知識是有用的，但對於宇宙中的人生而言，智慧更爲寶貴。

三、因果律和業的原理

科學上一個最有名的定理是因果律，科學家對因與果之間關係的觀察，往往僅限於明顯的推理過程。他們從物質的觀點看因果律，大部份的科學家都不相信心靈層面的存在、意識不滅的可能性、與輪廻的能力；他們不注意業的原理。

最近的思想潮流已經有顯著的改變，這是基於：四度空間連續體的原理、原子分裂爲能的過程、以及類似心理學現象的出現。漸漸地，宇宙的哲學觀支持一元論的思想。由於科學與形而上學、有機體與無機體之間界線的泯除，心物合一的理論、宇宙心靈的存在、和業力的作用，就比從前更容易明白、可信。

因爲佛陀具有超越時空限制的視覺，他知道宇宙萬象，不論是心靈的或物質的，一定都遵循着因果律。他不僅能够看穿廣袤無際的推理過程，而且能够鉅細靡遺地看到心靈的因果間的無限關係。他因此說道：

假使百千刼，
所作業不亡，
因緣會合時，
果報還自受。

這就是說，每一個知或不知的行爲，似乎可以幾百萬年不發生影響，但終將顯現其後果。

佛陀說：「當你產生一個念頭，種子便已深深地落在下意識裏。」他又說：「起一念而動三界。」這表示：就是一個無限小的因，終要結很大的果；一個無限小的部份，將影響整個宇宙。

某些最富思想的科學家說過，若把一個原子從宇宙抽出，整個宇宙將完全受影響。假如這是眞的，那麼佛陀「起一念而動三界」的說法，便得到驗證。

因爲佛教徒把因果關係看得比較深而且廣，他們更加注意必然產生「果」的「因」，「因」使人們自作自受。

一個與業的原理密切相關的要點是素食主義，因爲肉食對身體產生

此外，科學家對於遺傳和記憶的研究，顯出不尋常的事實：「醣核酸」和「去氧醣核酸」的蛋白質分子，雖然體積非常小，却有奇妙的記憶力。它能保持幾千年前的祖先的特性。有這些蛋白質分子，象生象，人生人，金髮生金髮，黃皮膚生黃皮膚，就連形狀和特性也沒差別。像蛋白質分子這麼小的質點，本身就具有如此奇妙的記憶力和智慧，由幾百萬蛋白質分子聚合而成的細胞，又如何呢？而幾十億這種細胞組成的生物又如何呢？難道這還不够說明凡是有情衆生都有佛性嗎？

（乙）輪廻的驗證

物理學上有二個著名的定律：一個是物質不滅定律，另一個是能量不滅定律。一九五七年，我依據腦細胞蛋白質分子的新陳代謝作用，推論出意識不滅定律。現在複述該推論如下：

研究人類思想的記憶之心理學家宣佈：記憶保存於腦細胞的蛋白質分子裏。但以放射性同位素研究人體組織的生理學家却發現：幾乎有百分之九十八的細胞，每年要更換一次，而腦細胞中的蛋白質分子，在一天或二天之內，幾乎要全部新陳代謝一次。可是記憶力却保存着，能反映幾十年前的印象；假如運用催眠術，則可憶起過去幾代或前生的事情。因此，我們不禁要問：蛋白質分子在將死去時，用什麼方法把記憶傳給新生的蛋白質分子呢？這使得科學家下結論說：腦細胞的蛋白質分子，一定是用電的衝擊，把記憶傳給新生的蛋白質分子。因而必得到如下的結論：假如記憶可以保存在電能中，則產生記憶和想像的識性，爲什麼一定不可能保存在充滿電的太空呢？

這個問題曾從學理的觀點討論過，但有關輪廻的事實，却多得不可勝數。在英國和美國的心靈學社會裏，記載有許多輪廻的例子。同時，意識可以離開身體，藉催眠術旅行到別的地方，有些瑜珈行者也可使心靈離開肉體。根據一九六六年報紙上的一則記載，有個男孩據說是英國士兵輪廻而來的。墨非的實驗是另一個寫成書、拍成電影的著名故事。

他明白表示：有情衆生若想得救，則他們本具的智慧便須全放光明。佛陀的教理，目的便在恢復本具的智慧，而不是像許多人所誤解的「充滿迷信的觀念。」達到開悟最實用、最可靠的途徑，便是著名而尊貴的八正道：正見、正思維、正語、正業、正命、正精進、正念和正定。

二、佛陀教理在現代科學中的驗證

（甲）有情衆生佛性的驗證

心理學家知道人類的心理活動可分爲二部份：意識部份和下意識部份，而前者極受後者的影響；下意識部份遠比意識部份具有威力。基於這個事實，蘇俄科學家發展出睡眠治療法的理論：學習過程在睡眠中，比在清醒時還容易完成。心理學家也發現：在下意識深處有個自我，在自我深處又有一個超自我。超自我的威力堅固得不受時空範圍的限制，這表示：超自我具有他心通、天眼通、天耳通和預感的功能。所有這些功能，幾乎與佛陀所說的佛性的能力相同。

蘇俄精神學家透露，他心通和預感已經在嚴格控制下的實驗中證實。例如：以手指尖看報紙，以脚趾頭看穿一道厚牆。

一九六四年，海峽時報報導說，有位德國人用千里眼的功能，發現一個小女孩的屍體橫臥在河邊的一棵樹下，他以電話通知挪威的警察局。一九六六年八月三日，神州日報也刊登過同樣的故事。一位日本精神學家在東京和琉球的一羣記者面前，公開表演他的精神力量。

超感官知覺在世界上普遍發現過，關於這類事實非常的多；而且有力地驗證了每個人都有其佛性。

除開情緒的感覺以外，許多動物顯示有某種程度的智慧。一些動物不僅擁有優於人類的感覺器官，而且具有人類無法匹敵的第六感。有些動物能預感氣候的變化；有些用强烈的氣味來連絡；有些傳達非常微弱的電波用來通訊。雖然他們的行爲被其本能强烈支配，但智慧的表現却顯示有佛性。

現代科學的趨勢與佛學

□ 史流音著 □

政 大 □ 鄭振煌譯 □

一、佛學簡介

佛教是圓覺世尊——釋迦牟尼佛所創立的。當他看到强的捕食弱的，以及生、老、病、死種種世間痛苦，他深爲苦惱；因爲這些提醒他一件事實：生命的整個過程深陷於煩惱的泥地中，人們覓得的幸福，並不能補償他所忍受的痛苦。他切望尋得解脫之道。

他是古代精神經驗的繼承者，他發現單單物質世界並不能包含人生的全部。他也發現，人在尋求至高無上的覺悟時，必須放棄物質世界的享樂。他拋棄了王位，走向深山，過着苦行生活。

經過六年奮鬪和嚴格訓練的生活後，他以其不屈不撓的意志力，克服了身心的所有障碍，獲得最高覺悟。他體悟到世間最寶貴的智慧。他知道每一有情衆生都具有佛性，因而衆生都可在機緣成熟時成佛。然而，無知和欲望敗壞了人心的本質，遮蔽了所有有情衆生的佛性，使得衆生被牽於生死漩渦中。

他也體悟到心、佛性、衆生是一物的三種形態，因此不能以三種不同的物體來看待。所有衆生只不過是組成宇宙心海的一小滴而已。因此，他結論說：別人的痛苦便是自己的痛苦，救人便等於救自己。他設計了一套解救所有有情衆生的方法，便稱爲佛法。

midnight." These words represent no common admonition that used to remind us of human morality, but reflect a shining truth which had been discovered with insgiht from the relation of cause and effect. Wars are originated from unwise thought which arises from defiled minds. So long as the meat-eating habit is practised by human beings, the human mind cannot be easily purified.

No saint was not emancipated from the fetters of selfishness and avaricious desire. To discover the universal truth by eliminating the mundane desire is a precious principle which is to be eternally appreciated by wise men. However, Buddhism has presented an eminent way, the Buddha Dharma, which has recently been proved from the progressive study of human psychology. The Buddha Dharma is considered to be the most reliable and practical way for man to strive for the realization of the most profound wisdom.

Many great thinkers have recently been aware that, beyond the realm of the five senses together with their products such as experience, reasoning and logical deduction, there also exist the super-experienced intuition and enlightenment. Only with both of these well-developed can man penetrate the real nature of the universe. By means of Buddha Dharma, we may effectively attain to the highest stage of unexcelled wisdom.

Hence, studying the teaching already verified by the Buddha will not only be useful for the discovery of new scientific theory and invention, but also be helpful to the efforts in seeking eternal peace in this world and the road to the survival mankind.

Although knowledge is powerful, wisdom is much more precious for human life in the universe.

evable in the past; but with the results of recent experiments, they have thoroughly been proved to be reasonable and true.

One such experiment was conducted by Professor James V. Meconnell of the University of Michigan. It appeared to be a miracle when he discovered that an untrained flatworm possessed similar ability of a well-trained flatworm after the former had received an injection of certain hormone extracted from the latter. It meant that the untrained flatworm could also respond to light or electrical stimulation just like the trained one. This has clearly proved that memory can be preserved not only in the protein molecules, but also in the hormone. So when we eat the meat of an animal having hormones of hatred and poisonous secretion, our body will be built up with materials that are harmful and inferior to our own. According to body and mind, our mind will then be defiled and be occupied with instinctive desires full of hatred and hostility. That was why scientists from various countries still had to say with a sigh at the assembly to commemorate the Centennial Anniversary of Charles Darwin in 1958 that beastly instincts still remained in the human mind in this twentieth century. These beastly instincts threaten the chance of survival of an individual or a collective front.

So it is of significance to listen to the following warning: "If you wish to know about the cause of wars in this mundane world, you just need to turn your ears to the bitter crying from the slaughter house during

trembling when an idea appears in one's mind.

As the Buddhists view the relation of cause and effect in a further and wider scope, they pay much more attention to the cause that will produce an unavoidable effect which makes one inescapable from the result for what one has done.

One important aspect closely related to the theory of karma is vegetarianism. As cannibalism causes much harmful effect to the body, such as eating too much meat will harden the arteries and cause a great deal of radio active materials to be stored in the marrow, those who take too much meat might be more suspectable to cancers.

According to the study of a German scientist, if the body of an animal is stabbed with a knife, an intensified hatred will arise in its mind and a poisonous secretion will be poured into the blood stream. The muscles of its body are to be pervaded with this kind of poisonous substance through circulation of blood. When we eat its meat, the poisonous substance gets into our body. As a result, our mind will be defiled in accordance with the principle of cause and effect, and the arising of avaricious and beastly desires will become irresistable. By the functioning of karma, the cause will take effect when conditions are favourable. In some circumstances, this may burst into an unreasonable and most hateful action, thus causing obstruction to the development of our inherent wisdom to its appreciable capacity and eventually leading us to the road of destruction. Such arguments were more or less unbeli-

universe, whether it was mental or material, had to be directed in line with the principle of cause and effect because He possessed the vision beyond the barrier of time and space. He was capable of not only penetrating through the boundless and limitless process of reasoning but also seeing without the slightest omission the boundless and limitless relation between the mental cause and effect. He therefore said:

"The deeds of mortal perish not,
Even in hundreds of million ages;
When the appropriate affinity presents,
Then do the deeds of men bear fruit."

This means that the effect of every known or unknown action, though may seem dorment for millions of years, will eventually make its consequences felt.

The Buddha said, "When you beget an idea, a seed has been sown deep into the subconscious mind." Again He said: "When an idea appears in the mind, the three planes in the universe tremble." This means that even an infinitesimal cause will be having a great effect in the long run and that an infinitesimal part will affect the universe as a whole.

Some of the most profound-thinking scientists had said that if an atom were abstracted from the universe, the whole universe would be entirely effected. If this turns out to be true, it verifies well the saying of the Buddha that three planes in the universe would be

newspaper in 1966, there is an Indian boy who was alleged to have been reincarnated from a British soldier. Bridey Murphy's experiment is another well-known story written in books and shown in the cinemas.

3. The Principle of Cause and Effect and the Theory of Karma

One of the distinguished principles in science is called the principle of cause and effect. The scientists' observation on the relation between cause and effect was usually limited to the obvious process of reasoning. They saw it from the material point of view. Most of them did not believe in the existence of the spiritual plane, the possibility of the conservation of consciousness and the ability of reincarnation. They paid no attention to the theory of karma.

The recent trends of thought have apparently been changed with the founding of the theory of four dimensional continuation, the process of splitting atoms into energy, and the appearance of the para-psychological phenomena Gradually the philosophical view of the universe favours the thought of Monoism. With the vanishing of borderline between science and metaphysics, and that between the organic and the inorganic, the establishment of the identity of matter with mind, the existing of the universal mind and the functioning of karma are much more understandable and believable than ever.

The Buddha know that every phenomenon in the

in the protein molecules of the brain cell; while the physiologists using radio-isotope to study the structure of the human body have found that nearly ninety eight per cent of the cells are to be changed once in a year and the protein molecules in the brain cell are to be metabolized almost entirely once in one day or two days. The power of memory, however, is preserved to reflect impressions of many decades ago; and if applied with the hypnoticed method, it can recall happenings of the past generations and those of the previous life. So we cannot help asking in what way do the protein molecules transfer their memory to the newly-born ones while they are dying away? This makes the scientists to conclude that the protein molecules in the brain cell might have passed their memory over to the newly-born ones through electric impulses. Then the following conclusion will be inevitable: If memory can be conserved in the electric energy, why should the consciousness, which produces memory and imagination, not be possible to be conserved in the space which is full of electricity?

This has been discussed from the theoretical point of view. However, facts about reincarnaticn, are innumerable for us to relate. Many cases of reincarnations are recorded by the psychical societies in U. K. and in U.S.A. Meanwhile, the consciousness can leave the body and travel to somewhere else through hypnotism; and the spirit can depart from the body as some yogis have done. According to a report published in the

Furthermore, the study of heredity and memory by scientists has revealed the unusual fact that the protein molecule of R.N.A. and D.N.A., though very minute in size, does possess the wonderful power of memory. It can retain the character of its ancestors even receding to thousands of years ago. With these protein molecules, an elephant begets an elephant, a human being begets a human being, golden hair gives rise to golden hair, yellow skin produces yellow skin; even the form and the characteristics do not differ. A minute particle like the protein molecule does possess in itself such wonderful power of memory and intelligence, how much more will it be so in the case of a bigger cell which aggregates in itself millions of protein molecules? And still how much more will it be so in the case of a sentient being which is formed with billions of such cells? Does this not clearly indicate that every sentient being does have the Buddha-nature?

B) The Verification of Reincarnation

There are two well-known principles in physics: one being the conservation of mass and the other, the conservation of energy. In 1957, I made a reasoning on the basis of the metabolism of the protein molecules in the brain cell to prove the principle of the conservation of consciousness. This reasoning is now repeated as follows :

The psychologists, who had studied the memory of human thought declared that memory was preserved

almost identical to the aptitudes of the Buddha-nature as stated by the Buddha.

Russian Psychiatrists have revealed that telepathy and precognition have been verified as facts under strictly controlled experiments. For example: to read newspaper with the finger tip and to look through a thick wall with a toe.

In 1964 it was reported in the Straits Times that a Dutchman had discovered with the faculty of clairvoyance the corpse of a little girl lying under a tree beside a river, and he informed the police in Norway by telephone. The same story was published by Sin Chew Jit Poh on August 3, 1966. A Japanese psychiatrist had also shown his psychic power publicly in front of a crowd of correspondents in Tokyo and Okinawa.

Facts about the E.S.P. (Ertra-Sensory Perception) which has been widely discovered in the world, are numerous; and these strongly verify that every man has Buddha-nature in his own mind.

Besides emotional feelings, many animals exhibit certain degree of intelligence. Some animals not only possess sensory organs superior to those of human beings but also possess the sixth sense that no man can equal. Some insects can precognize the change of weather; some use the profound scent for corresponding; some transmit rather weak electrical impulses to send messages. Though their behaviour is strongly governed by their instincts, the presence of intelligence indicates the presence of Buddha-nature.

meant to serve the purpose of recovering the inherent wisdom. It was not something full of superstitious ideas as many people misunderstood. The most practicable and reliable way to step upon in order to attain enlightenment is the famous and noble Eightfold Path consisting of right view, right thinking, right speech, right action, right livelihood, right effort, right mindfulness and right concentration.

2. The Verification of the Buddha's Teaching in Modern Science

A) The Verification of Buddha-nature in All Sentient Beings

Psychologists have learnt that the mental activities of human beings can be divided into two parts: the conscious part and the subconscious part, the fomer being greatly influenced by the latter. It is noted that the subconscious part is much powerful than the conscious part. Based on this fact Soviet scientists have developed the theory of sleeping-therapy purporting the learning process to be much easily completed in sleeping than in awakenng. Psychologists have also discovered that there is an ego bedded in the depth of subconsciousness and that there is a super-ego bedded in the depth of the ego. The power of the super-ego is so steady that it is not restricted by the boundary of time and space. This means that the super-ego possesses the faculties of telepathy, clairvoyance clairaudience and precognition. All these faculties are

not cover the whole of human life. He also noted that one, in search of supreme enlightenment, must abandon the enjoyment of the material world. He renounced the throne and went to the mountain where He practised the ascetic way of life.

After six years of strenuous and strictly-disciplined life, He, with His unsurmountable will power, had overcome all the obstacles of body and mind. He had attained to the highest enlightenment. He had realised the most precious wisdom in the universe. He came to know that every sentient being possessed the Buddha-nature which qualified and enabled one to become a Buddha at some opportune time. Ignorance and desires, however, defiled the essence of mind and concealed the Buddha-nature of all sentient beings, causing them to be caught in the whirlpool of birth and death.

He also came to realise that mind, Buddha-nature and sentient beings were one in three states, and could not therefore, be treated as three different objects. All beings were but droplets which formed the great ocean of the universal mind. Hence He concluded that the suffering of others did really mean the suffering of oneself, and tht to save the others would really result in saving oneself. He devised a set of means to save all sentient beings and this was called the Buddha Dharma.

He clearly indicated that if all sentient beings were to be saved, their inherent wisdom must be fully brought to light. The teaching of the Buddha was

Bilingual Buddhist Digest

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THE TRENDS IN MODERN SCIENCE AND BUDDHISM

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Translated into Chinese

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1. Brief Introduction to Buddhism

Buddhism was founded by Sakyamuni, the perfectly enlightened and world-honoured one. When He saw the strong preyed upon the weak and the universal suffering of birth, old-age, sickness and death. He was deeply distressed; for all these reminded Him of the fact that the whole process of life was immersed in the quagmire of sorrow and that the happiness one found could not compensate the pain one endured. He aspired to seek the way to deliverance.

Inheritor as He was to the ancient spiritual experience. He observed that the material world alone did