

The Logical Foundation of the Basic Principles of Criminal Law

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Abstract: *The principle of the law of crimes and punishment, the principle of equal application of criminal law and the principle of appropriateness of crime and punishment have their logical foundations in the law of sameness, the law of non-contradiction and the law of excluded middle at the macroscopic, mesoscopic and microscopic levels, respectively, to lay down their status as the guiding principles of the administration of justice. The principles derived from the three basic principles of criminal law also have their own logical foundations and guide practice in their respective jurisdictions. The basic principles of criminal law are closely aligned with the "three publics" principle of social governance; the three basic principles of criminal law take the three laws of logic as their common logical foundation; the three basic principles of criminal law can be summarized in a single sentence: applying the legal mix of crime and punishment equally to all offenders. The logical formula is: $(P \leftrightarrow \neg C) \rightarrow (P \leftrightarrow \neg C)$, which is the general logical formula of the basic principles of criminal law.*

Keywords: *basic principles of criminal law; principle of legality of crimes and penalties; principle of equal application of criminal law; principle of appropriateness of punishment and crime.*

Law is the bottom line of morality, and logic is the bottom line of law. In this view, the bottom line of criminal justice is legal logic, and revealing the underlying logic of the basic principles of criminal law is an important cornerstone for the construction of legal logic, especially criminal law logic, however, the theoretical exploration of explaining the basic principles of criminal law from the perspective of logic is still insufficient. This paper attempts to consolidate the logical foundation of the basic principles of criminal law, to promote the application of logic in jurisprudence and the development of legal logic, to

advance the value-oriented jurisprudence characterized towards the legal science underpinned by necessity and objective law, to provide high-quality legal knowledge corpus for the development of the judicial scene of artificial intelligence, and to add bricks and mortar to the construction of China under the rule of law. In judicial practice, mastering the logical anchor of the basic principles of criminal law, it is possible to class line miscellaneous, easy, and better play the guiding role of the basic principles of criminal law.

1. Logical roots of the generation of fundamental principles of criminal law

Logical thinking manifests three regularities in the subjective world, namely, the law of identity, the law of contradiction and the law of exclusion, which are collectively known as the three basic laws of logical thinking. Criminal law, at the macro, meso and micro levels, is based on the three laws of logic and has formed its own three basic principles.

1.1 The principle of legality as an incarnation of the same law

In the macroscopic world of thinking, the same law is necessarily followed. In the practice of the rule of law in criminal matters, the macroscopic world of thinking, for all people in the whole society, the principle of the legality of crime and punishment is the basic principle, which is the treasure of the law-abiding citizens and the talisman of the criminals. So, in the macroscopic world, the principle of the law of crime and punishment and the same law have any relationship, and what is the relationship?

1.1.1 Consistency of the principle of legality with the same law

Statutory definition of crime. Article 3 of China's Criminal Law provides that If a crime is expressly provided for by law, it shall be criminalized and sentenced in accordance with the law ; if a crime is not expressly provided for by law, it shall not be criminalized and sentenced. This is the provision of China's criminal law on the principle of legality of crime and punishment. "The law expressly provides for the commission of crimes", this sentence indicates that whether or not constitute a crime is the criminal law legislation; "in accordance with the law conviction and punishment", this sentence indicates that criminal justice should be in accordance with the provisions of the criminal law conviction and punishment. The

provisions of the Criminal Law on crime are a generalization, including basic crime, aggravated crime, mitigated crime, preparatory crime, attempted crime, suspended crime, accomplished crime, principal crime, accessory crime, coerced crime, abettor, and one crime or several crimes. The sum total of judicial convictions for various types of harmful acts should be fully consistent with the criminal law profiles. The crime profile (C) of the legislative crime is the standard for determining the various specific crimes (C) of the judicial crime, and the legislative crime and the judicial crime have the inherent consistency, whose logical formula is: $C=C$.

Legalization of penalties. The language of criminal law is simple and concise and needs to be understood accurately and comprehensively. Article 3 of the Penal Code stipulates that criminal justice activities should be based on the standard of criminal legislation, the meaning of which is clearly that the crime of legislation (C) is the criterion for the determination of the crime of justice (C), which is the law of crime, so does the meaning of this provision contain the law of the penalty, and that the legal penalty of legislation (P) is the criterion for the determination of the judicial penalty of the sentence of the pronounced penalty (P)? Split from the sentence "convicted and sentenced in accordance with the law", "sentenced in accordance with the law" should be understood to include the legal penalty. The legal penalty for a crime under criminal law is a combination of one or more types and degrees of punishment. The application of penalties to criminals in judicial trials consists of two types of cases, one of which is the direct application of penalties in accordance with the legal penalties prescribed by the criminal law for crimes, and the other is the determination of specific penalties in accordance with the rules set out in the criminal law. The total range of judicially applicable penalties for a crime and the range of legal penalties stipulated in the criminal law should be fully equivalent. The logical formula for the legalization of penalties, that is to say, the penalties applicable to criminals in criminal justice must be those stipulated in the criminal law legislation, is: $P=P$.

The principle of legality of crimes and penalties realizes the characterization of the act. The statute of punishment is divided into two cases, one of which is the configuration of punishment for the crime of legislation, and the other is the statutory punishment is linked to the crime of legislation through the rules of criminal law, both of which cannot be separated from the crime of legislation, demonstrating that the crime of legislation is the anchor of the punishment, and that the crime and the statutory punishment appear together as a crime-

penalty collocation with the logical formula $C \wedge P$. In the practice of the rule of law of the criminal law, the crime and the punishment ($C \wedge P$) are closely linked and inseparable, and the crime of legislation (C) and legislative punishment (P) of the crime and punishment configuration has a certain range, so that it has a greater adaptability; judicial crime (C) and judicial punishment (P) of the crime and punishment match with certainty, to facilitate the execution of punishment. From the range of the legislative crime-penalty configuration to the determination of the judicial crime-penalty match, it always follows the logical path that the legislative crime-penalty configuration determines the judicial crime-penalty match, with the logical formula: $(C \wedge P) \rightarrow (C \wedge P)$, which is the logical formula of the principle of the legality of the crime-penalty.

The law of identity is one of the basic laws of formal logic, which means that in the same thinking process, concepts and judgments must be used in the same sense and cannot be used in different senses. The law of identity aims to maintain the certainty of thinking. The law of identity includes the identity of concepts and the identity of judgments. Using a concept in the same sense means $A = A$; using a judgment in the same sense means $p \rightarrow p$. The identity of crime ($C = C$) and the identity of punishment ($P = P$) in the principle of legality of crimes and punishments are essentially the same as the identity of concepts ($A = A$) in the law of identity; the identity of crime and punishment ($C \wedge P \rightarrow C \wedge P$) in the principle of legality of crimes and punishments is actually equivalent to the identity of judgments ($p \rightarrow p$) in the law of identity. It can be seen that in legal logic, the principle of legality of crimes and punishments is essentially equivalent to the law of identity, and the principle of legality of crimes and punishments is the expression of the law of identity in criminal law, with its underlying logic being $(C \wedge P) \rightarrow (C \wedge P) \Leftrightarrow (p \rightarrow p)$.

1.1.2 Logical error in violation of the principle of legality of crime and punishment

In criminal justice, any violation of the principle of legality of crime and punishment is a violation of the same law, because in the underlying logic, the principle of legality of crime and punishment is equivalent to the same law. A violation of the principle of legality of crime and punishment is primarily a violation of the legality of crime ($C \neq C$) or a violation of the legality of punishment ($P \neq P$). For example, Criminal Trial Reference No. 310, the case of Sun Jing's intentional destruction of property. Sun Jing took advantage of her position to fraudulently obtain more than 320,000 copies of the company's dairy products

and disposed of most of the fraudulently obtained dairy products by feeding them to pigs. Sun Jing used his position, cheated the company's property, should be recognized as the crime of misappropriation, and subsequent behavior is the handling of stolen goods, does not have a separate evaluation significance. And the behavior of dairy products for pigs, is a use of property, just too extravagant waste, but does not belong to the intentional destruction of property behavior, does not have the significance of criminal law evaluation . Therefore, the charge prosecuted in this case (the crime of misappropriation of duties) was correct, but the charge (the crime of destroying property) and the reason for the trial court's decision did not conform to the objective reality and violated the principle of the law of crime and punishment. The court in this case put the charge in a confused way, failing to convict for acts that constituted a crime and attaching a charge to acts that did not constitute a crime, in violation of the same law.

In the field of criminal law logic, anything that violates the same law is a violation of the principle of legality of crime and punishment, because in legal logic, the principle of legality of crime and punishment is the incarnation of the same law. For example, after the Shaoxing peace conference in 1141 A.D., Qin Hui instigated his cohort Wan Qi Seol to present to the Song Emperor a fabrication of Yue Fei's resistance to the Jin Dynasty when he embraced the troops not to save, abandonment of positions and many other "crimes" of the report. After that, qin hui and then buy Zhang junk, Wang Gui, Wang Jun to falsely accuse Yue Fei son of Yue Yun had written to Zhang Xian want to start a mutiny with. Shaoxing eleven years in September, Zhang Xian was arrested and imprisoned; October Yue Fei and Yue Yun were also arest and imprisonment. Has resigned from the home, the old general Han Shizhong cannot help, go to ask Qin Hui Yue Fei what crime, Qin Hui brashly replied: "Yue Fei' son Yun and Zhang Xian book is not clear, the matter is not necessary?" Han Shizhong said angrily: "groundless ' three words, how to convince the world!" According to Qin Hui's authorization, Yue Fei's three men were soon sentenced to death. ^[1] Yue Fei was murdered in Hangzhou's Wind Pavilion the night before the Spring Festival in the 12th year of Shaoxing (1142). In this famous historical case, Yue Fei's father and son did not commit the criminal act of mutiny and rebellion, but they were charged with " unfounded crimes", which violated the same law and the principle of the law of criminal punishment.

1.2 The principle of equal application of criminal law is the same as the non-contradictory law

In the interconnected and comparative world of mesoscopic thinking, the law of non-contradiction is followed. In the practice of the rule of law in criminal matters, the principle of equal application of criminal law is the norm for offenders from a mesoscopic point of view. The principle of equal application of criminal law and the law of non-contradiction belong to the mesoscopic world. Is there any relationship between the principle of equal application of criminal law and the law of non-contradiction and what is the relationship?

1.2.1 Fitting of the principle of equal application of criminal law with the law of non-contradiction

Article 4 of our Criminal Code provides that all persons who commit a crime are equal in the application of the law. No one is allowed to have privileges beyond the law. This is China's criminal law provisions on the principle of equal application of criminal law, which is also traditionally referred to as "the prince commits the same crime as the common people", whose most basic implication is that the same crime is subject to the same punishment, the same case is sentenced to the same penalty, and the same case is not allowed to exist different penalty, and the $C \wedge P$ denotes the crime profiles and legal penalties stipulated in the legislation, and the judicial conviction and sentence can realize the equal application of criminal law only by taking the crime-penalty configurations stipulated in the legislation as the standard. The principle of equal application of criminal law can only be realized by taking the configuration of crime and punishment as the standard, and by using $\neg(C \wedge P)$ to indicate that the specific crimes judicially sentenced and the sentences pronounced have not been based on the profiles of crimes and statutory penalties stipulated in the criminal law as the standard. The logical formula of the principle of equal application of criminal law is: $\neg(C \wedge P) \wedge \neg(C \wedge P)$. The principle of equal application of criminal law embodies judicial fairness, that is, "the prince commits the same crime as the common people", and its scope of application is mesoscopic.

The law of non-contradiction, which is also one of the fundamental laws of formal logic, is that two contradictory or opposing concepts cannot be used at the same time to refer to the same object in the same thought process; nor can one conclude both what an object is and what it is not. The law of non-contradiction aims to maintain consistency in thinking. The formula of the law of non-contradiction at the conceptual level is: $A \neq \neg A$, and at the judgment level is: $\neg(P \wedge \neg P)$. It is obvious that the principle of equal application of criminal law is the formulaic

expression of the law of non-contradiction of logical thinking at the level of judgment.

1.2.2 Logical error in the violation of the equal application of criminal law

From the perspective of the materialistic view of history, looking dialectically at the law of the application of penalties, looking at human history, and looking at both domestic and foreign countries, in slave and feudal societies, the ruling class enjoyed the criminal justice policy of "lenient and light", while the ruled class suffered from the criminal justice policy of "strictly and severely". This is an open and systematic inequality in the administration of justice. [2] The principle of hierarchical privilege in China's feudal criminal law is most centrally embodied in the Eight Discussions, but it is not limited to the scope of the Eight Discussions; for example, respectability and inferiority in blood and in status can be punished by different penalties for the same crime. [3] and to this day, due to a variety of reasons, the same case is still a large number of different judgments, which seriously jeopardizes the authority of the socialist rule of law in our country and undermines the people's sense of fairness. In the first half of the year, the national court concluded 545,000 cases of first instance criminal cases, the first instance of criminal conviction rate of 88.68%, the first instance of criminal adjudication has been changed and remanded for re-trial rate of 1.65%. [4] Reversal and remand rate Although the rate is only 1.65%, the number is still 8,993, involving many people and many families, which is enough to draw our attention. If a case has been dealt with fairly and impartially in the first trial, the case will not be re-sentenced in the second trial or remanded for retrial; whereas a first trial judgment being re-sentenced in the second trial or remanded for retrial indicates that it must exist the result of a concurrent judgment in the logical form of $(C \wedge P) \wedge \neg(C \wedge P)$, which obviously violates the law of non-contradiction. The rate of second-instance corrections and remands reflects the number of corrected disparate verdicts in similar cases, and in fact the total number cases will be greater than the number of corrected disparate verdicts in similar cases.

1.3 The principle of proportionality between crime and punishment is implicitly linked to the law of excluded middle

1.3.1 Fitting of the principle of proportionality of crime and punishment with the law of excluded middle

In the world of micro thinking, which reflects on the internal contradictions of individuals, the

qualitative analysis of things follows the law of the middle of the row. In the criminal trial, from the micro point of view, for the offender, the principle of appropriateness of crime and punishment is the sublate of the crime and the resolution of the contradictory relationship between crime and punishment. The principle of appropriateness of crime and punishment belongs to the same microcosm as the law of the center, so is there any relationship between the principle of appropriateness of crime and punishment and the law of the center, and what is the relationship?

Article 5 of China's Criminal Law stipulates that the severity of the penalty should be commensurate with the crime committed and the criminal responsibility borne by the offender. This is the principle of appropriateness of crime and punishment under China's Criminal Law, which is also referred to by some as the principle of appropriateness of crime and responsibility. The provisions of the criminal law on crime are a generalized provision, including the form of criminal constitution, the form of crime stop, the form of complicity, as well as the form of the number of crimes and other situations, the configuration of the legal penalty for the crime is also one or a number of types of penalties and penalties of the combination. The application of criminal law in a criminal trial is not to configure a suitable penalty for a crime, but to choose to determine a specific crime and to fit a determined sentence among the crime profiles and legal penalty ranges stipulated in the criminal law. The principle of appropriateness of crime and punishment requires that the judiciary must choose to apply an appropriate combination of crime and punishment to criminals in terms of their crime and criminal responsibility among the ranges of crime and punishment stipulated in the criminal law, with $(P \leftrightarrow \neg C)$ ^[5] denoting an appropriate combination of crime and punishment, and $\neg(P \leftrightarrow \neg C)$ denoting the other combinations of crime and punishment. The meaning of the principle of appropriateness of crime and punishment is that, select $(P \leftrightarrow \neg C)$ in the case of $(P \leftrightarrow \neg C) \vee \neg(P \leftrightarrow \neg C)$, the logical formula of which is: $(P \leftrightarrow \neg C) \vee \neg(P \leftrightarrow \neg C) \vdash (P \leftrightarrow \neg C)$.

The law of excluded middle means that two mutually exclusive ideas cannot be false at the same time, one of them must be true. It is usually expressed as A or $\neg A$, or symbolized as $A \vee \neg A$. From the logical structure, it can be seen that the logical constants of the law of exclusion and the principle of appropriateness of punishment and crime are the same, i.e., both of them have the same logical nature. In other words, the principle of appropriateness of crime and punishment is implied in the law of exclusion, and the principle of appropriateness of crime and punishment is the inevitable requirement of the law of exclusion in the application

of criminal law. In criminal justice, the principle of appropriateness of crime and punishment can be realized only if the requirements of the Law of Exclusion are logically complied with. The principle of appropriateness of crime and punishment embodies judicial justice and is used to solve the problem of quantitative criminal responsibility, and its scope of application is microscopic. Relative to the law of exclusion, the principle of appropriateness of crime and punishment has a richer connotation. In the conviction and sentencing of specific crimes in specific cases, impunity, light punishment for serious crimes, heavy punishment for minor crimes, and acquittal verdict are all cases of inappropriate sentencing, which violate the principle of appropriateness of crime and punishment, as well as the law of excluded middle, is logically incorrect.

1.3.2 Logical error in violation of the principle of proportionality of crimes and penalties

The logical error of one-sided preventionism. The principle of proportionality requires that, in the administration of criminal justice, criminals must be subjected to penalties appropriate to the crimes they have committed and to their criminal responsibility. In the context of preventivism, there is a tendency to apply heavier penalties to make an example of a person in order to prevent the occurrence of crime in society. We label the heavier penalty as P^+ , then the logical formula for applying heavier penalty to a crime is $C \wedge P^+$, in which the penalty applied to the criminal is to suffer on behalf of others. Obviously, one-sided preventionism in the application of penalties is contrary to the result $(P \leftrightarrow \neg C)$ of applying penalties in accordance with the principle of appropriateness of crime and punishment. This result is labeled $\neg(P \leftrightarrow \neg C)$, then the actual reasoning process is: $(P \leftrightarrow \neg C) \vee \neg(P \leftrightarrow \neg C) \vdash \neg(P \leftrightarrow \neg C)$.

The logical error of one-sided leniency in the lightening of penalties. The criminal justice policy of "leniency and severity" is a helpless move of the relative lagging behind of the legal system of the society in the transition period; with the civilized progress of the society tending to be harmonious and smooth, the leniency of punishment will become a trend, and the criminal justice policy of "leniency and severity" will be the direction of the evolution of the paradigm of the criminal policy. The criminal justice policy of "lenience and light" will be the direction of evolution of the criminal policy paradigm. [2] In the judicial trend of lighter penalties, we need to be vigilant against the indulgence of criminals. We mark the application of lighter penalties to criminals as P^- , then the logical formula for the application of lighter penalties to crimes is $C \wedge P^-$, in which the lighter penalties applied to criminals are not only

suspected of indulging criminals, but also in danger of encouraging crimes. It can be seen that the leniency of the application of one-sided penalties is not compatible with the result of the application of penalties in accordance with the principle of the appropriateness of crime and responsibility ($P \leftrightarrow \neg C$), marked $\neg(P \leftrightarrow \neg C)$, then the logical reasoning of the application of this criminal law is: $(P \leftrightarrow \neg C) \vee \neg(P \leftrightarrow \neg C) \vdash \neg(P \leftrightarrow \neg C)$.

2. Logical basis of the principle of derivation of the fundamental principles of criminal law

The fundamental principles of criminal law have their derivatives. The basic principles have their logical foundation, and the derived principles also have a logical basis. A logical analysis of the principles derived from the basic principles of criminal law will help to provide a thorough understanding of the basic principles of criminal law and to highlight the guiding significance of the basic principles of criminal law.

2.1 Logical basis of the principle of derivation of the principle of legality

2.1.1 No crime without law, no punishment without law

The maxim "Nullum crimen sine lege, nulla poena sine lege", first expressed in Latin by Feuerbach, the father of modern criminal law, in his textbook on criminal law in 1801, is a maxim and a classic expression of the principle of legality of crimes and penalties, i.e., as long as there is no provision for the enactment of a law, there is no crime and no penalty. Legislation has stipulated that the behavior is a crime recorded as C, the law does not expressly provide that it is a crime recorded as $\neg C$, then, because the law does not expressly stipulate that the behavior is a crime, the judiciary cannot be recognized as a crime, the logic of the form: $\neg C \neq C$; legislation has stipulated that the legal penalty is recorded as P, the law does not expressly stipulate that the penalty is recorded as $\neg P$, then, because the law does not expressly stipulate the legal penalty, the judiciary cannot be sentenced to the penalty, the logic of the form: $\neg P \neq P$.

It can be seen, logically, "no crime without express provisions of the law, no punishment without express provisions of the law", expresses the basic meaning of the principle of criminal justice, is the principle of criminal justice in the "concept of the same" another way of expression, and does not contain the "judgment of the same" aspect of the meaning,

therefore, "no crime without express provisions of the law, no punishment without express provisions of the law" is not the full meaning of the principle of criminal justice, will call it the principle of criminal justice. The meaning of "the same judgment" is not included. Therefore, "no crime without express provisions of the law, no punishment without express provisions of the law" is not the full meaning of the principle of the statute of limitations on crimes and punishments, and it is not appropriate to call it the classic expression of the principle of the statute of limitations on crimes and punishments, but rather the early expression of the principle of the statute of limitations on crimes and punishments. It is not appropriate to call it the classic expression of the principle of legality of crime and punishment, but rather an early expression of the principle.

2.1.2 The principle of prohibition of criminalization by analogy

Criminal analogy is for the law does not punish the express provisions of the criminal behavior, with the method of inference, than attached to invoke the nature of its behavior is similar to the law, and then convicted and sentenced. In the slave society and feudal society criminal analogy had been widely applied, is the ruling class used to crime and punishment of an important authority. Ancient Chinese criminal law has "than attached to invoke", that is, similar to the provisions of analogical reasoning. The Han Book - criminal law, the Han emperor ordered the court lieutenant encountered difficult cases cannot judge, to be the case and the reference law on the report. But only limited to doubtful prisons. By the Sui Dynasty, it became the tradition, and was carried on until the end of the Qing Dynasty and the beginning of the Republic of China. China's criminal legislation in the late Qing Dynasty and the early Republic of China, by the influence of European capitalist countries legislation, in the criminal law in the abolition of the principle of analogy. Although there were repeated attempts, the criminal law of 1997 abolished the analogy system and explicitly replaced it with the principle of legality of punishment. The reason why the analogical system was abolished, because the analogical conviction is analogical reasoning, and analogical reasoning is contingent reasoning, its conclusion does not have the inevitability, ^[6] that is, according to the analogical reasoning that the crime C_2 , is not necessarily the same as the criminal law of the crime C_1 , which violates the law of the same, and its logical formula: $C_1 \neq C_2$, the prohibition of the principle of the analogical conviction of the logic of the formula is: $\neg(C_1 = C_2)$.

2.1.3 Prohibition of the retroactive application of legislation

The principle of prohibition of retroactive application of new laws means that a new law may not be applied retroactively to acts that have not been tried or judged before its application, unless the application of the new law is more favorable to the perpetrator. In the old criminal law, there were acts that were not criminalized (denoted as $\neg C$), and there were acts that were criminalized and assigned statutory penalties (denoted as $C \wedge P$), while in the new criminal law, the same acts are criminalized or even more serious crimes and assigned heavier statutory penalties (denoted as $C^+ \wedge P^+$), then the logical formula of the principle of prohibition of retroactivity is: $\neg(C^+ \wedge P^+)$ 。

If the effect of felony law is allowed to be retroactive, then it will result in the act which is not stipulated as a crime in the criminal law being convicted and punished, or the act which is stipulated as a misdemeanor in the criminal law being found to be a felony and punished with a heavier penalty, which can be seen in the logical process of retroactivity of felony law as $\neg C \vee (C \wedge P) \vdash (C^+ \wedge P^+)$. Obviously, this is untenable, because the antecedent does not contain the variant of the consequent, and it cannot be deduced at all. Therefore, re-law retroactivity cannot be logically established.

2.1.4 Prohibition of extrajudicial criminalization and extrajudicial sentencing

The law of crime is recorded as C , and extrajudicial incrimination is recorded as $\neg C$. Then, extrajudicial incrimination creates the situation of $C \wedge \neg C$, which is obviously logically undesirable. The logical form of prohibiting extrajudicial incrimination is: $\neg(C \wedge \neg C)$. The legal form of punishment is P , and extrajudicial punishment is $\neg P$. Then, extrajudicial punishment creates the situation of $P \wedge \neg P$, which is obviously and logically incorrect. The logical form of extrajudicial punishment is: $\neg(P \wedge \neg P)$. In ancient China, in addition to the formal provisions of the legal code, there were extrajudicial punishments, such as "relocation", "charging", "dispatch", "lynching" and "death by lynching". "In the Tang Dynasty and the subsequent dynasties, the legal death penalty was expressly provided for only by hanging and beheading, but as an extrajudicial torture, lynching has been used since the Song Dynasty, until the end of the Qing Dynasty when lynching was abolished. [7] Extrajudicial incrimination and extrajudicial use of punishment are, logically, contradictory to justice and the law, and cannot be justified.

2.2 Logical basis for the equal application of the principle of derivation of criminal law

2.2.1 Prohibition of sentencing on the basis of the person

Throughout human history, members of the ruling class in hierarchical societies have enjoyed a criminal justice policy of "lenience and light" after committing crimes, which has manifested itself in inequality in the administration of justice. For example, the Tang Law of China provides for more detailed hierarchical privileges of feudal bureaucrats in the application of justice. The Tang Law also stipulates that where a person has more than one official title, he may first take the higher title, and then take the lower title and the successive titles. Those who were removed from office because of their official status could still be appointed at a lower level one year later. In addition, there was a system of offsetting prison sentences by removing official titles. [8] By the time mankind entered a democratic society, the concept of equality became more and more deeply rooted in people's hearts, countries gradually abandoned the practice of "treating people differently based on their status or situation", and chose the principle of sentencing for crimes .

From the point of view of the application of criminal law, can be divided into two types, namely, the "punishment according to the person" (IAP) and the "punishment for the crime" (CAP), which are in essence the punishment for the crime and the punishment for the non-cause of the crime, which logically belongs to an opposing relationship, and in accordance with the law of non-contradiction, it can be expressed as follows: $(IAP) \vee (CAP)$. Instead, the practice of "treating people according to their needs" is rejected, and the principle of punishment based on crime is chosen, which realizes the equal application of the criminal law in terms of the punishment for crimes. Since this reasoning process is a specific application of the law of non-contradiction, it can be seen that the law of non-contradiction implies the principle of equal application of criminal law. The principle of equal application of penalties necessarily opposes the judicial application of criminal law in a discriminatory manner.

2.2.2 Prohibition of "Strike Hrd"

Strike Hard means to strike hard and fast, in accordance with the law, and to crack down

on the activities of criminal elements. New China has carried out a total of four "crackdowns": the first in 1983; the second in 1996. The third crackdown was carried out in 2001, with the addition of online operations to track down fugitives, also known as the "crackdown of the new century"; the fourth crackdown was carried out in 2010. Logically, there is a logical problem with the Strike Hard, because the Strike Hard are staged, which results in the same crime being tried during the Strike Hard with a heavier penalty, and after it without the heavier penalty, which results in the phenomenon of different penalties for the same crime. The logical form is $(C \wedge P) \wedge \neg(C \wedge P)$, it is obvious that the strict crackdown has distorted the fairness of justice and violated the principle of equal application of criminal law. The Strike Hard has inherited the wisdom of law and judicial tradition of the ancient "chaos with heavy punishment", which has its own reasonable place of existence, but its shortcomings need to be restrained and avoided, that is, we must abandon the strict fight, that is, only "follow promptness" and not "follow severity".

2.3 Logical basis for the derivation of the principle of proportionality of crime and punishment

2.3.1 Prohibition Absolute indeterminate sentences

Absolute indeterminate sentences are the symmetry of relative indeterminate sentences, a penal system in which only the type of sentence is determined at the time of sentencing and the duration of the sentence is not specified at all. Judicial indeterminate sentence, the relationship between crime and punishment cannot be determined, the principle of appropriateness of crime and punishment cannot be realized, the logical formula is recorded as: $\neg(P \leftrightarrow \neg C)$. In the history of China, there have been indeterminate sentences; in the Qin Dynasty, corporal punishment was used in conjunction with penal servitude, which was neither a life sentence nor a fixed term of imprisonment, but an indeterminate sentence. Instead, it was an indeterminate sentence, and the punishment of hard labor was generally waived through a "pardon". At the beginning of the Han Dynasty, the Qin system was followed, and corporal punishment was still used in conjunction with hard labor, with an indeterminate term of imprisonment. It was only after Emperor Wendi's reform of the penal system that the penalty of hard labor was given a term of imprisonment. [9] Although the principle of legality of crime and punishment requires that the legality of crime is a profile of offenses and the legality of punishment is a range, this is fundamentally different from judicially imposed

absolute indeterminate sentences. In order to facilitate the execution of the sentence, the judicial pronouncement of the sentence should have a quasi-number, the absence of a quasi-number, ambiguous, so that the principle of appropriateness of crime and punishment cannot be implemented, in logic, it violates the principle of appropriateness of punishment and crime. The logical idea of absolute indeterminate sentences is the opposite of the principle of appropriateness of crime and punishment: $(P \leftrightarrow \neg C) \vee \neg(P \leftrightarrow \neg C) \vdash \neg(P \leftrightarrow \neg C)$.

2.3.2 Prohibition of bend the law for the benefit of relatives

China's criminal law provides for the crime of favoritism and perversion of the law, i.e., the act of judicial staff members who pervert the law for their own benefit or for the sake of their own feelings, who knowingly subject an innocent person to prosecution, or who knowingly shield a guilty person from prosecution, or who intentionally contravene the facts and the law by making perverse rulings in the course of criminal trial activities. Bend the law for the benefit of relatives is a reaction to the principle of appropriateness of crime and punishment, and a negation of the principle of appropriateness of crime and punishment, the logical form of which is noted as: $\neg(P \leftrightarrow \neg C)$. Bend the law for the benefit of relatives is different from arbitrary sentencing of crimes and punishments, the act of bending the law for personal gain is contrary to the principle of appropriateness of crime and punishment, while the act of Arbitrary sentencing of crimes and punishments is contrary to the principle of legality of crime and punishment, so it can be seen that the bending of the law for personal gain and arbitrary sentencing of crimes and punishments are two levels of things that cannot be compared with each other. According to the principle of appropriateness of crime and punishment, only the crime committed by the offender and the criminal responsibility he or she should bear are the basis of punishment, and the private feelings and interests of judicial officers are not the basis of punishment for the offender.

3. Logical basis for the application of the fundamental principles of criminal law

The basic principles of criminal law are based on the three major laws of logic at the macro, meso and micro levels, and they share a common underlying logic, which together leads to a logical general formula for the basic principles of criminal law.

3.1 The logic of the external linkage of the fundamental principles of criminal law

Openness, fairness and justice are the basic principles of modern social governance. The principle of openness means that the relevant rules and standards are formulated "openly" to ensure the orientation and legitimacy of management activities and systems. The essence of the principle of fairness is to create a fair atmosphere and a fair environment, to ensure the fairness of management activities and systems, and to enhance people's sense of fairness. So that each participant enjoys equal status in the law, is not discriminated against, and has equal opportunities to participate in competition on a fair basis. The essence of the principle of fairness is to ensure the effectiveness and consistency of management activities and systems through a fair process of enforcing the "law" (rules and standards), and to treat and deal with the rights and responsibilities of social participants in a fair manner, so that they can enjoy their rights and bear their responsibilities equally.

The application of criminal law should adhere to the principle of "three publics". Publicity in criminal law, i.e., the principle of legality, means that the application of criminal law should be based on the provisions of the criminal law and that criminal law legislation should be made public. The logic of this is expressed in the formula: the principle of openness→the principle of legality of crime and punishment. Adherence to the principle of legality of crime and punishment, is to take the law as the standard in judicial practice, and to oppose the subjective arbitrariness of judicial officers, therefore, fundamentally speaking, it is the materialist position to adhere to the principle of openness and the principle of legality of crime and punishment. Historically, the opposite of the principle of legality of crimes and punishments is the rule that "if the punishment is not known, the power is unmeasurable", which means that if the criminal law is not publicized, its power is infinite. This sentence is from the "Justice in the Left Biography of the Spring and Autumn Period", which was written in the sixth year of the reign of Duke Zhao. Zuo Zhuan - Zhaogong Sixth Year" records that Zi Chan of Zheng cast the penal book, and Shuxiang of Jin sent a letter to condemn it, which said, "If the people know that there is a pardoning, then they will not be jealous of the top." Du Yu of the Western Jin dynasty annotated: "When power is transferred to the law, the people do not fear their superiors." In the Tang dynasty, Kong Yingda and others further elaborated on Du's annotation, stating: "Since the punishment is unpredictable and the authority is unfathomable, the people fear their superiors. Now, laws are established to define this, and inscribed tripods are used to demonstrate it. The people know that those in power

cannot exceed the law to punish them, nor can they manipulate the law to grant favors. Therefore, power is transferred to the law, and thus the people no longer fear their superiors." However, logically, if the criminal law is not known, then the crime is not known; if the crime is not known, then the norms are not known; if the norms are not known, then people dare not act. Thus, the consequence of not publicizing the criminal law is that it leaves people cowering in bewildered fear. This is a policy of foolish people and a society of terror under dictatorship and the rule of man, which is rejected by civilized and democratic societies.

Fairness in criminal law, i.e., equality for all in the application of penalties, adheres to the viewpoint of linkage and comparison, and creates fairness in the administration of justice. The logic of this is expressed in the formula: the principle of fairness→ the principle of equal application of criminal law. Adherence to the principle of equal application of criminal law means that in judicial practice any person who commits a crime is equal in the application of the law. No one is allowed to have privileges beyond the law. Therefore, fundamentally speaking, adhering to the principle of fairness and the principle of equal application of criminal law is to view and deal with the issue of crime from the point of view of connection, which is the embodiment of the connection viewpoint in Marxist philosophy in the principle of criminal law.

Justice in criminal law is an inherent requirement of the principle of proportionality between crime and punishment, which upholds the view of dialectical unity between crime and punishment, so as to achieve judicial justice. The logic of this is expressed in the formula: the principle of justice→ the principle of appropriateness of crime and punishment. To adhere to the principle of the appropriateness of crime and punishment means that in judicial practice the severity of the penalties applied to criminals should be commensurate with the crimes they have committed and the criminal responsibility they have assumed, and that the contradictory relationship between crime and punishment should be properly resolved. Fundamentally, therefore, adherence to the principle of justice and to the principle of appropriateness of punishment and crime is the application in criminal practice of the principle of the particularity of contradictions, which is based on concrete analysis of specific problems, and is the use of the Marxist viewpoint of development to analyze and solve the problem of guilt and responsibility.

3.2 Harmonization of the underlying logic of the basic principles of criminal law

Although the three basic principles of criminal law directly reflect the requirements of the three basic laws of logic at the macro, meso and micro levels, each of these principles is also based on the theoretical foundation of the three basic laws of logic; in other words, the three basic laws of logical thinking are the logical foundation of each of the basic principles of criminal law. In order to reveal the consistency of the underlying logic of the basic principles of criminal law, we have created the following truth table of the basic principles of criminal law.

Table 1: Truth table of basic principles of criminal law

C	P	$(C \wedge P) \rightarrow (C \wedge P)$	$\neg((C \wedge P) \wedge \neg(C \wedge P))$	$(P \leftrightarrow \neg C) \vee \neg(P \leftrightarrow \neg C) \quad P \vdash \leftrightarrow \neg C$
1	1	1	1	1
1	0	1	1	1
0	1	1	1	1
0	0	1	1	1

As can be seen from the above table, firstly, the basic principles of criminal law are identical in terms of truth value, indicating that they have an equivocal relationship, i.e., the basic principles of criminal law encompass and demonstrate each other. This shows that the three basic principles of criminal law are the three sides of the criminal law, or that the basic principles of criminal law are the information entanglement of the criminal law at the macro, meso and micro levels. Secondly, the underlying logic of the basic principles of criminal law is eternal truth, which means that no matter what the situation is, the statement of eternal truth is always correct, that is, the basic principles of criminal law are scientifically valid in the field of criminal law, this is exactly the logical basis of the basic principles of criminal law as the basic principles of criminal law.

The basic meaning of the basic principle of the law of crime and punishment is: (1) the judicial conviction is based on the standard of the crime of the criminal law: (2) the pronounced sentence is based on the standard of the legal sentence ; (3) the conviction and sentencing is based on the standard of the configuration of the crime and punishment stipulated in the criminal law. Expressed as a logical formula: $(C \wedge P) \rightarrow (C \wedge P)$. As long as the implementation of the law of crime and punishment, can realize the same crime with the same penalty; also only the law of crime and punishment, can ensure the same crime with the same

penalty. Therefore, logically the principle of legality of crime and punishment is equivalent to the principle of equal application of criminal law. The most basic meaning of the law of exclusion is to make the right determination when judgment must be made. The basic meaning of the principle of appropriateness of punishment is the necessity of imposing an appropriate penalty for a crime, and this "appropriate penalty is $(P \leftrightarrow \neg C)$ " [5], which is nothing but a further illustration of the principle of the legality of the crime and the punishment.

Therefore, the principle of the legality of crime and punishment is logically consistent with the principle of the appropriateness of crime and punishment. As can be seen, the three basic principles of criminal law share a common underlying logic.

3.3 Logic of integrated application of fundamental principles of criminal law

3.3.1 Logical formulas for the application of penalties

Criminal liability includes retributive and preventive liability. The degree of completion of the crime varies, and if the crime is completed, the offender is liable for retribution and should be sentenced to retribution, which is for a crime that has already been committed. If the crime is not completed and no damage has been caused, the offender is liable for prevention and should be sentenced to preventive punishment, which is for crimes that have not yet been committed. If the crime is not completed but damage is caused, the offender is liable for both retributive and preventive liability. Denoting criminal liability by P , retributive liability by P_n , and preventive liability by P_r , the logical formula for criminal liability is $P = P_n + P_r$, and the sentence imposed in accordance with $(P_n + P_r)$ is the liability sentence. [5] And as mentioned earlier, the principle of appropriateness of crime and punishment requires the relationship between crime and punishment as $(P \leftrightarrow \neg C)$, that is, $(P_n + P_r) \leftrightarrow \neg C$. The formula intuitively expresses the logical relationship between crime, responsibility and punishment.

For the State to realize that punishment is effective in disciplining criminals and that criminals should be duly punished rather than encouraged, it is the ideal logic of applying punishment that the offender should lose no less than what he gains by committing a crime. Let us assume that the amount of satisfaction that the offender can gain by committing a crime is G (Gain), and the amount of deprivation or suffering that the penalty inflicts on the offender is P (Punishment). The logical formula for the application of the penalty is $P \geq G$.

3.3.2 General logical formula for the comprehensive application of the fundamental principles of criminal law

Combined application of the principle of legality of crime and punishment and the principle of equal application of criminal law. The logical formula of the principle of equal application of criminal law is: $\neg((C \wedge P) \wedge \neg(C \wedge P))$, which indicates that $(C \wedge P)$ and $\neg(C \wedge P)$ cannot coexist, so which one should prevail? According to the principle of legality of crime and punishment $(C \wedge P) \rightarrow (C \wedge P)$, the legislative configuration of crime and punishment is the judicial standard for conviction and sentencing, therefore, equal application of criminal law results in $(C \wedge P)$.

The principle of equal application of criminal law is used in combination with the principle of proportionality of crime and punishment. Guided by the principle of legality, the principle of equal application of criminal law results in judicial practice $(C \wedge P)$. In further discussing the specific relationship between C and P, it is necessary to combine the principle of appropriateness of crime and punishment, and the conclusion of combining the principle of appropriateness of crime and punishment is to choose to apply $(P \leftrightarrow \neg C)$ in the administration of justice, therefore, the result of the combined application of the three basic principles of criminal law can be summarized as $(P \leftrightarrow \neg C)$. In short, the three basic principles of criminal law can be summarized in a single sentence: the equal application of the legal mix of crime and punishment to all offenders. The logical formula is: $(P \leftrightarrow \neg C) \rightarrow (P \leftrightarrow \neg C)$, which is the logical general formula of the basic principles of criminal law.

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