

Legal Analysis and Imputation Path Research on Behavior of Infringing Game Virtual Property

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Abstract. With the rapid development of game industry brought by the change of Internet technology, there are more and more violations on game virtual property. Although there has been a consensus on the attributes of game virtual property, how to criminalize related behaviors still lacks relative basic theory and has certain difficulties. The transfer of possession in the crime of theft and the cognitive error in the crime of fraud has different performances in the specific crime of infringing game virtual property. Therefore, it is necessary to analyze the nature of behaviors from the perspective of dogmatics. On the basis of theoretical analysis, it helps to clear the imputation paths of theft, fraud and the crime of illegally obtaining computer information systems from different behavioral perspectives, and determines the amount of crime and the level of sentencing.

Keywords: Game Virtual Property; Jurisprudence Analysis; Guilty Path.

1. Introduction

The frequency of virtual property crimes is increasing year by year, and the evaluation criteria are different in practice. The research office of the Supreme People's Court has studied the qualitative problem of stealing other people's game currency by using computers to make profits from illegal sales, and has made a reply. At present, it is advisable to criminalize and punish the illegal sale of game currency by using computers to steal other people's game currency by illegally obtaining computer information system data. However, in practice, courts at all levels in various regions still deal with property crimes, and different judgments often occur in the same case. Virtual property is a new thing relying on the Internet. Since the Internet entered China in 1992, its development time is less than 30 years. Virtual property appeared in recent years due to the advanced concept and ingenious system design, which makes the traditional means of legal supervision ineffective because of the lag of the law. Therefore, this paper will try to analyze the legal nature of virtual property and the nature of the behavior of an infringing virtual property. Based on these studies, a literature review and case analysis. It tries to prove that treating property crimes is a criminal law protection path that adapts to the national conditions, conforms to the general understanding level of the public, and adapts to the practical trial.

The academic significance of this paper is as follows. The first point is to sort out the legal nature of virtual property and demonstrate whether it is valueless electromagnetic data or valuable property. Moreover, demonstrate that virtual property is only the property recognized by civil law or both civil law and criminal law. The second point is to demonstrate the type of virtual property. The types of property are generally divided into "tangible property", "intangible property" and "property interest". The author will carefully analyze the types of virtual properties to find out their classification. Thirdly, this paper compares and analyze the protection paths of the two existing virtual properties and establish the best protection path. Fourth, the fundamental purpose of legal writings is to safeguard social order, regulate the social structure and promote economic development. The existence of virtual property, to a certain extent, has impacted the old concept of property and property systems. The analysis of the legal attribute of virtual property is conducive to finding the protection path of

virtual property and promoting and ensuring the development of the Internet economy. This article will make a series of interpretation methods, such as text interpretation and purpose interpretation, to explore the meaning of legal norms. Based on adhering to the principle of a legally prescribed punishment for a specified crime, analogical interpretation of legal provisions and legal terms should be avoided to make the interpretation of legal norms conform to the meaning of the text. Based on practical cases, this paper points out the inadequacy of the protection approach to computer crimes and the rationality of the approach to property crimes.

Many domestic scholars have conducted the most intense discussion on the legal nature of virtual property. Yang Lixin and Wang Zhonghe talked about that virtual property should be protected according to the rules of the property law. They also pointed out that network virtual property is not the object of intellectual property, the object of creditor's rights, and the object of new property rights. The nature of virtual property is a special object, which has independent economic value as the object in traditional civil law, and is an electromagnetic record with the nature of property [1]. Professor Lin Xuxia also believed in the book *Research on Virtual Property Rights* that network virtual property is a special thing, and its legal attribute belongs to property. The obligee can dispose of virtual property according to his own consciousness. The book also introduces the legislation of virtual property in other countries in detail, and summarizes the rights of virtual property [2].

In the first part of the paper, the concept and scope of virtual property are described in detail. Secondly, it introduces the actual situation of virtual property in China's practice, as well as the difficulties encountered in conviction and sentencing. The second part describes the legal analysis of various dilemmas. The third part studies the current situation of the application of the accusation of infringing on virtual property in China by combing cases. The research results show that at present, there are two criminal patterns of infringing virtual property in China's judicial practice. The first is the transfer of virtual property completed by the actor himself, which includes landing in cyberspace by obtaining the account and password of the original obligee, to realize the transfer of virtual property or bypass the protection of the account and password of virtual property by means of technical interpretation, direct transfer of virtual property. The second is the virtual property transfer behavior completed by the actor through the victim, that is, the virtual property is transferred according to the actor's intention by deceiving the victim and logging in the account password by the victim himself. The number and manner of the acts of the perpetrator violating the virtual property in each criminal mode are different, and in some cases, it will involve the intersection of multiple criminal modes of infringing the virtual property.

2. The plight in governing the infringement of virtual property in games

The development of game industry allows people to reach an agreement that the virtual properties such as accessories in games shall be protected by penal code. The holdings and transactions regarding virtual properties in games are not forbidden in China. The infringement of virtual properties that obtained through legal channels in game shall be protected by law as "civil asset" [3]. Because the nature of virtual properties is not determined by Chinese law, causing the governance on violation of virtual properties become the focus of dispute. Among them, the conviction and sentencing challenged the discretion power of the courts and judges at all levels.

2.1 The current status of legal regulations regarding the infringement of virtual properties in game

In the first draft of the general provisions of civil law issued in the year of 2016, virtual properties were defined as the attributes of real right, and after the second draft was issued, the relevant provisions regarding virtual properties were deleted and modified [4]. It fully implies that the issue of infringement of virtual property is highly controversial in legal circles, and legislators have maintained a strict and cautious attitude towards the legal system in this regard. So far, China's legal rules for infringement of game virtual property are limited to the discretion of individual cases, and

in judicial practice, the judge's determination of virtual property determines the final trial result of the case to a certain extent. For one thing, there is no standardized system for case trial, for another, there are deviations for judgement criterions in different regions, the personal knowledge of judges has a far-reaching influence on the case trial.

In the year of 2006, the Game Industry Promotion Law was approved by the South Korean National Assembly, which recognized the legitimacy of virtual property, and the transactions of virtual property are protected by law [5]. Currently, the values of online virtual property are recognized by South Korean government both legislatively and judicially, and it is pointed out that the virtual characters and items in online games are independent of service providers and possess property value. The research on penal code protection of virtual property in game also started earlier in Taiwan. As early as 2003, it was stipulated in the penal code that the misappropriation of other people's online game "equipment" must be convicted by the prosecutors as "theft". In the current view, though such regulation model cannot reach suiting punishment to crime, it does effectively protect the virtual property in game.

At present, there is an increasing number of game users in China, the development of game industry and the number of players is presenting a surge tendency. Frequent intersections take place within the game world and the real world, the number of infringement cases regarding virtual property in game is increasing, and the legitimate interests of players cannot be protected effectively relying on the resolutions of civil disputes, the making of criminal law in this filed is urgently needed for governing the infringement of virtual property in game.

2.2 Differentiation and ambiguity of conviction standard

Currently, in respect to the legal nature of virtual property in game, there are mainly three viewpoints proposed in the academic circle. One idea suggested that the virtual property in game belonged to the category of real right, which can be obtained by purchasing refill cards or accomplishing tasks, in the meanwhile, the game players can be entitled to the certain real right of accessories in games due to the labor input with consumed energy or wealth. Another opinion was that virtual property in game belonged to the category of intellectual property right, the accessories obtained in games through continuous investment of intelligence and energy shall be regarded as the intellectual output of game players, namely, a kind of intellectual property right. Others argued that the accessories obtained by players in game were not actual properties in the eye of the law. These virtual accessories obtained in game constitute debts between players and the game operator. The specific services provided by the game operator can be obtained by the players through purchase behavior or consuming energy, while the virtual properties in games are defined by the service contract signed by the game operator and the players [6].

Regarding this issue, there is continuous controversy in academic circles, though the virtual properties in large-scale games can be transferred, recycled, sold and so on. There are still large disparities in conviction standards for infringement of virtual properties in practice. As for a case of infringement for virtual properties in game, the defendant bought various computers home, he rented a Trojan mailbox to falsify the accounts and password of the players in an online game, and has stolen their accessories in game through logging in their accounts, at last, he sold them as RMB by online transactions [5]. In this way, the defendant has obtained more than 200,000 player accounts and sold them online illegally. In the end, he made a profit of more than 300,000 yuan. The Public Prosecutor's Office arrested the defendant for theft and prosecuted him in court. The court held that the criminal object of the crime of theft is "public and private financial affairs" the relevant laws of our country have not yet determined the nature of the virtual properties in game. and the defender also argued that based on the fact that the legal interests infringed by the defendant are not the objects adjusted by the crime of theft, so it should not be subject to criminal regulations. In the end, the court did not support the theft charged by the procuratorate. The acts of falsifying the players' account password and utilizing the Trojan mailbox to illegally obtain game data of the defendant were determined to be a violation of the security operation for computer network. Finally, the defendant was convicted and

punished for the crime of damaging the computer information system, and he was sentenced to four years in jail. For the determination of this case, the follow-up disputes on this issue are heated. If the defendant was merely convicted as the crime of breaching a computational information system, it will be impossible to conduct a comprehensive assessment of his infringements. Resulting in that his behavior of obtaining the players' accounts and selling their accessories in game for benefit illegally cannot be effectively regulated. The legal interests protected by the conviction of damaging computer information systems lie in the security of computer information systems, and the consequences of this case are not only the damages to the safe operation of computer systems, but also the more than 200,000 players involved in the case whose accounts have been stolen. Online games have a range of target audience, and in the context of the lack of regulation in the criminal law, the different awareness of judges for game products will also affect the evaluation of infringement.

The reason for this situation is that in addition to the absence of laws and relevant judicial interpretations to regulate the infringement of game properties, the understandings of virtual properties in judicial practice are not the same. The contradictions between the judge's discretionary power and the injured legal interests are more prominent. Another case is equally confusing. The defendant used his computer technology to crack the password to enter the securities company's OA office system and VPN system to steal the securities transaction information, employee accounts and so on [7]. This act was eventually punished as the crime of invading the computer system and obtaining data from the computer information system illegally.

It can be observed that the criminal trial practice is affected by the specific attributes of the traditional "carrier" as things, restricting the targets of property crimes are physical objects. Except for public and private properties protected by criminal law, digital forms such as electromagnetic data, account numbers, and card secrets cannot be interpreted by analogy, which violating the principle of legality. The virtual properties are not clearly defined as belonging to public or private properties in the criminal law of China, so the criminalization and punishment for the theft of virtual properties as the crime of theft is an arbitrary and expanded interpretation.

In summary, conviction for the crime of illegally invading the computer system and illegally obtaining data from the computer information system is an insurance practice in trial practice. However, it is worth thinking that the crime of illegal intrusion into computer systems is a crime of circumstances, not a crime of amount, and the maximum penalty is only imprisonment of less than seven years if the circumstances are particularly serious. The price of virtual property in games varies widely, and some account players spend months of energy from registration to upgrade. In real transactions, some game accounts containing rare equipment jewelry cost tens of thousands of yuan. In the first case above, the defendant also made a profit of more than 300,000 yuan by infringing on the player's virtual property. With the multiplicity of such crimes, it is clear that this method of attribution cannot be commensurate with the degree of damage to the victim, the punishment is not commensurate, and there is a problem that the legal interests of the victims are not reasonably protected.

2.3 The unreasonable extent for measurement of punishment and criminal penalty

How to evaluate the value of illegal acts of infringing on the virtual property of games is a controversial problem in sentencing. If only the amount of infringing virtual property is used as the basis for sentencing, it is not reasonable. The value of the game's virtual property cannot be exactly equivalent to traditional property. The price of virtual coins recharged in some games can also become difficult to estimate due to the operator's irregular adjustments. Though the values of virtual properties and reality are interrelated. Whereas, on account of the different energy, time, and money consumed by the players, the recognition of criminal amount during a trial has become a plight that impeding the punishment to fit the crime. This also constitutes the reason why the previous cases are generally convicted of the crimes of illegally invading the computer system and illegally obtaining the data of the computer information system. In practice, due to the values of virtual properties in

game are not clearly recognized, there are many disputes and difficulties in the application of law when the virtual properties of players in a specific game are infringed.

3. Legal doctrinal analysis of the crime of violating virtual property

There has been a consensus on regulating virtual property-related acts through criminal law, but there is a great debate on how to specifically distinguish these criminal acts through different theory. The reason for this problem is that the attribute of virtual property, the expansion interpretation and application of crime of fraud and theft is not clear.

As mentioned above, the utility, value, disposable and scarcity of game virtual property determine its property attribute, and the purpose of the legislation of crime of property violation in Chapter 5 of the Criminal Law is to punish the criminal acts that infringe upon civil property and protect the property rights of citizens from infringement. Therefore, the act of violating game virtual property can be deeply analyzed from the perspective of crime of property violation.

On the basis of acknowledging that game virtual property is built on the debtor-creditor relationship between users and online game operating companies, we can find that users obtain the services provided by game operating companies by directly paying money or investing time and labor. While companies directly get the money that users pay, or obtain user's Internet traffic that eventually translated into property interest, to provide users with services [8]. Users and game operating companies are at both ends of the debtor-creditor relationship respectively, and this kind of relationship provides two different perspectives for analyzing the behavior of infringing virtual property of games. In terms of users, the perpetrator transfers the virtual property without user's knowledges, which is similar to the characteristic of theft [9]. In terms of game operator, in order to transfer virtual property, perpetrators must pretend to be the user or other third party to dispose the game virtual property, which is similar to the characteristics of fraud. These two characteristics form two possible approaches to regulate these two behaviors. Firstly, by amplified-interpreting the concept of possession, interpret the behavior of transferring virtual property as theft (theft approach). Secondly, ignoring the doctrinal rule that machines cannot be cheated, interpret the act of transferring property by impersonating the user's identity as fraud (fraud approach) [10]. However, it should be noted that the particularity of the act of violating virtual property determines that it does not necessarily fully conform to the objective and subjective elements of the crime of theft and fraud. The core of the application of theft lies in the definition of possession and the transfer of possession, while the key to the application of fraud lies in the judgement of cognition error. Therefore, it is necessary to emphatically analysis this part of the special elements to clarify the difference and special points between the virtual property crime and the general crime of property violation.

3.1 Crime of theft as the starting point

Affirming game virtual property belongs to the public and private property, to constitute the crime of theft, the act of criminal including transferring game virtual property of others without the consent of others or directly stealing others game account need to break the original possession and establish a new possession. What's more, the perpetrator needs to have the intention of illegal possession.

3.1.1 The concept of possession

The concept of possession in civil law is very different from it in criminal law. Possession refers to the possessor actually control and dominate the property with the intention of possession. Specifically, the concept in the civil law mainly lies in the evaluation of the possessor's status to the property, and thus to form a more sustainable and stable order of property domination. Possession itself means a sense of property value. But in the criminal law, possession is not only actual (domination of property in the physical scope), but also social conceptive, as well as legal or illegal.

3.1.2 The conceptual transfer of possession

The transfer of possession is the premise of constituting crime of theft. There are two concepts of transfer of possession and transfer of property in the doctrine of criminal law. The transfer of possession refers to the transfer of space, displacement, and actual dominion, while the transfer of property refers to the increase of one's property and the derogation of the other's property. That is, transfer of possession is spatial transfer, while transfer of property is conceptual transfer. The complete idealization of possession leads to the transfer of possession also becoming the transfer of concept, as well as becoming the same concept as the transfer of property. It is especially prominent in the transfer of virtual property. Although this kind of transfer shows in different accounts, it is only reflected in the increase of one's virtual property and the decrease of the other's virtual property. What's more, the shift in time and space did not actually happen, just a conceptual transfer of property occurred. Therefore, the idealization of possession means that the transfer of possession is no longer based on the transformation of space-time relationship, which is completely equivalent to the transfer of property [9]. To sum up, the conceptual transfer of possession also conforms to the objective constitutive elements of the crime of theft.

As a creditor's right, the virtual property of the game has the property attribute, and belongs to the public and private property, which can be transferred by possessing. By breaking the original possession and establishing a new possession to infringe on it, which also conforms to the objective elements of the crime of theft. Therefore, it is feasible to regulate the violation of the game virtual property by crime of theft.

3.2 From the crime of fraud in depth

The crime of theft focuses on whether the transfer of possession has the consent of the user or game operator, while the judgment of the crime of fraud depends on whether the user's disposition of property is caused by cognition errors. In the past period of time, the difficulty of constituting crime of fraud by defrauding virtual property was whether computer information system set up by the operator actually being cheated or a natural person. The most prominent example is the ATM machine fraud. Therefore, the existing dilemma is whether machines can be deceived.

3.2.1 Negation of presupposed consent theory

In order to solve the dilemma of whether machines can be cheated, legislation of German and Japan criminal law set up the crime of computer fraud for the behavior of improper use of data leading to property damage of others. However, there is not only no relevant accusation in our criminal law, but also the main view insists that machines cannot be cheated which denies the establishment of the crime of fraud [11]. Advocates asserting fraud believe that, the machine can't be cheated. However, the computer system is actually set by people, the act of transferring by machine represents the people's approval of transferring property in machines. In this condition, machines dispose of property instead of natural persons, which means this act obtain the consent of people. This thinking path uses presupposed consent theory to demonstrate the conclusion that crime of fraud is constituted when cheating behavior is made to the computer system. However, this presupposed consent theory was more based on the difficulties faced by the popularization of ATM machines and the initial development of artificial intelligence in the past period. Moreover, if machines thought can also be tricked, machines and people are in the same position, making it difficult to distinguish the crime of fraud and theft.

There are still some differences between defrauding game virtual property and defrauding machines. The game virtual property is under possession and control of the user or the game operation company. The victim will dispose game virtual property because of being cheated and falling into cognition errors. In fact, the fraud is not aimed at the machine, but the people behind the computer who actually possesses the game virtual property. Therefore, the constitution of fraud does not need to consider whether machines or people being cheated, the victim falling into cognition errors is the key of constituting fraud.

3.2.2 Cheating behavior and cognition errors

The constitution of the crime of fraud requires the victim to be cheated by disposition virtual property and suffer losses. The method of fraud is "making up facts and concealing the truth". The act of deception in the crime of fraud is manifested as presenting false matters to the victim or delivering untrue information to the victim [12]. This kind of deception is the act that causes the victim to fall into cognition errors and dispose their property accordingly. The absence of any element cannot be considered fraud. In addition, there should be a causal relationship between the deception and the victim's disposition of property. Therefore, even if the victim is caught into cognition errors and disposition of property, which is not based on the error, it cannot be regarded as the perpetrating act of fraud. It should be noted that deceptive act can only happen on the facts. Only the facts can distinguish between true and false, deception on the value judgment cannot be constituted as crime of fraud [12].

Game virtual property that has both use value and market value is the public and private property with property attribute acquired by users through money recharging or labor and energy payment. Through deception, the perpetrator makes the game user or game operating companies fall into cognition errors, that they have an intention to dispose game virtual property. Based on cognition errors, the perpetrator disposes game virtual property owned by him, which satisfies the objective constitution of the crime of fraud and can be regulated by the crime of fraud.

3.3 The approach to the crime of illegally acquiring computer information system: the negation and logical deviation of the property properties of game virtual property

The premise of regulating the infringement of game virtual property with crime of theft and fraud is to admit that the game virtual property is the debt among the users and game operation companies. Some scholars believe that: The network virtual property is equivalent to the data in the computer information system in natural attributes (namely electronic data or electromagnetic records). Without the consent or authorization of game players or network operators, the perpetrator steals the virtual property (namely electronic data) of equipment in the network game system owned by others, which undoubtedly has the element for illegally obtaining the data in crime of illegally acquiring computer information system [13]. Of course, this viewpoint that equals game virtual property to electronic data ignored the unique property attributes of game virtual property. In addition, there is also a certain deviation on logic. The negative view refutes this view from the point of legal interest protection, which emphasizes the rationality of regulating the violation of game virtual property by the crime of fraud and theft.

4. The criminal law regulation path of infringing on game virtual property

4.1 Typological path of different behaviors property

Virtual property is a kind of right object stored in the virtual space, and network operators protect it by running a set program. Therefore, if you want to control the virtual property, you must first enter the virtual world where it exists. According to the different subjects entering the virtual world, there are two main ways of infringing on virtual property in China's judicial practice. The first is the transfer of virtual property completed by the actor himself, including landing in cyberspace by obtaining the account and password of the original obligee. Therefore, realizing the transfer of virtual property or bypassing the protection of the account and password of virtual property using technical interpretation. There are two types of direct transfer of virtual property: the second is the virtual property transfer behavior completed by the actor through the victim, that is, the virtual property is transferred according to the actor's intention by deceiving the victim and logging in the account password by the victim himself. Given the above two types of violations of virtual property, our judicial authorities mainly regulate them with the crime of theft, fraud, illegal access to computer information system data, and illegal control of computer information systems. In most cases, the judicial authorities present

consistent opinions on the application of the crime of infringing on virtual property, but there are still cases where the same behavior has different natures.

In the following, the author discusses the specific types of acts of infringing on virtual property and the charges applicable to the court under each mode of conduct. As the specific behaviors in real cases vary greatly, the author can only try to generalize and abstract the existing judicial cases as much as possible to find commonalities, which will inevitably lead to neglect of individual non-mainstream cases. Therefore, what this article shows is only the main situation of the application of the crime of infringing on virtual property in our judicial practice.

4.1.1 Virtual property transfer completed by the actor in person and the application of charges

The account is an electronic record saved in the network and user operating system. This electronic record is displayed in the form of a network ID in front of us. Only having an account can open the network life. Network users can register and obtain corresponding accounts by signing service agreements with network operation service providers and setting login passwords to protect their accounts and virtual properties in their accounts. Therefore, the account password has been as a key and voucher for users to enter the virtual world. According to the different ways in which the actor enters the virtual world, the virtual property transfer behavior that the actor completes in person can be divided into two types. One is the behavior of landing in cyberspace to obtain the account and password of the original obligee, to realize the virtual property transfer. The other is the behavior of directly transferring the virtual property by bypassing the protection of the account and password of the virtual property through the means of technical decryption.

The Act of Transferring Virtual Property by Login Account and Password and the Application of Crimes. The crime of infringing on the virtual property by logging in to an account is generally manifested in the process of obtaining the account password, logging in to the account password, and transferring the virtual property. Although the first prerequisite for logging in to an account is to obtain the corresponding account password, from the perspective of the unity of the protection of virtual property itself, the legal attribute of virtual property is a subject that needs in-depth study. At the same time, virtual property, as the object of criminal acts, will have a significant impact on the understanding of the types of larceny in China's current criminal law. The foundation of larceny is the protection of property, and its stealing behavior is to break through the old possession and establish a new possession. This transfer of possession is manifested through the transfer of property possession. Whether the act of infringing on the virtual property also conforms to the constitutive requirements of larceny needs further research and demonstration.

4.1.2 The transfer of virtual property through the victim and the application of the crime

The act of transferring virtual property through the victim means that the perpetrator conceals the truth by fabricating facts, so that the victim falls into a wrong understanding, and then disposes of his virtual property according to the intention of the perpetrator. There is no difference between the behavior of deceiving the victim to invade the virtual property and the behavior of fraud against real property. It is only to transform the object of infringement from the real thing to the virtual property stored in the virtual world. In the judicial practice of our country, there is no dispute about the determination of this act, which is considered to constitute a crime of fraud. This act of transferring virtual property through the victim is no different from the type of traditional fraud in China, only the object of the criminal act has changed from the original property to the virtual property today. Although it is not difficult to identify the act, the legal attribute of virtual property as the object of the act still needs to be clarified. In this case, the judicial practice department of our country did not recognize the virtual property as electronic data by the provisions of the Judicial Interpretation on Theft Cases jointly issued by the Supreme People's Court and the Supreme People's Procuratorate in 2013, but made the opposite understanding, believing that virtual property can be evaluated the same as property, and applicable to the provisions of the crime of fraud. For the same object, it is illogical that there are two

different treatment opinions. Therefore, after the introduction of the judicial interpretation, there are still disputes about the nature of the act of the actor personally transferring virtual property.

4.2 Determination path at the sentencing level

The amount of crime determines whether the property crime is established and the seriousness of the circumstances. It is very important to find out the amount of virtual property in the field of virtual property crime. The reason why it is difficult to identify the amount of virtual property crime is that the price of the virtual property does not have objectivity [14]. Because the virtual property is replicable, the price of the virtual property is largely affected by the copy circulation of developers. The so-called replicability means that after an electronic digital arrangement, the number of virtual properties generated is determined by the program controlled by the game manufacturer. For example, the technical staff of an online game wrote a program that can produce a certain prop. He can input the code of the prop into the program as he wishes to produce many identical props. This is the replicability of virtual property.

Some scholars claim that because some programs that produce virtual props are reproducible and have not existed for a long time (about one or two years), props are renewable without restriction, and stealing game props should not be punished as a crime. This statement needs to be discussed [15]. Firstly, as mentioned above, to obtain the maximum economic benefits, game service providers cannot produce game props without restrictions, otherwise, the price of the props will decline. Stealing a prop is tantamount to making the game service provider less profitable, which is reprehensible in criminal law. Infinite replicability is only theoretical replicability, which is impossible to happen in the actual situation. Once the number of props exceeds the demand, the value of the excess will be greatly reduced. For example, Tencent's game "Dragon in the Sky" boasts 100000 players. However, if the number of a certain type of prop exceeds 100000, whether it is 200000 or 300000, it is meaningless. Secondly, because the props are replicable, they are excluded from the object of theft, which is inconsistent with social common sense and popular ideas. The survival period of some poultry is roughly the same as that of virtual props, and the number of eggs laid by such poultry even exceeds that of props produced by some programs. Is it because poultry has similar "replicability" to eggs those eggs are excluded from the object of theft? Therefore, props are excluded from the object of larceny because of their replicability, which is different from the social common sense and popular ideas. Of the 198 cases of infringing virtual property, 115 cases were convicted of property crimes and sentenced. In many of the above-mentioned property crime cases, the determination of the amount of crime is directly determined by the amount of the perpetrator's profits. However, the infringement of legal interests should be based on the victim's loss, not the actor's profit. The essence of crime should be harming others, not benefiting oneself ". The amount of property crime should be determined by the loss of the victim. Therefore, when the actual loss can be identified, the actual loss will be directly taken as the amount of crime. When the actual loss is difficult to identify, the method closest to the actual loss shall be adopted. The crimes of virtual property can be divided into two categories. The first category is crimes targeting individuals, groups, and other non-network companies. The second major type of crime is the crime of taking the network company as the target. It is of great significance to classify crimes against virtual property as criminal objects. The degree of harm and condemnation ability caused by different objects are different.

4.2.1 Determination of the number of crimes committed against individuals

The first category is crimes targeting individuals, groups, and other network companies that do not produce virtual products. It should be noted that the prices of virtual properties are also different. Some prices are relatively stable, while others fluctuate greatly. They are classified again according to the volatility of their prices.

Virtual property with a relatively constant price. For some virtual properties, the price fluctuation is relatively small and can be directly estimated according to the selling price. For example, the retail price of QQ currency, one yuan, has not changed for nearly 20 years. It is most reasonable to determine the amount of crime by the price of the object. Whether in academic circles or judicial practice, there

is basically no objection to the determination of the selling price of the virtual property with a relatively constant price.

Virtual property with an unstable price. There are some virtual properties, such as props and game accounts, whose prices fluctuate greatly. How should we deal with this? Some scholars believe that they can be convicted and sentenced directly according to their factory prices. This view needs to be discussed. Because the price of most virtual properties fluctuates greatly. It is hard to avoid miscalculation if the selling price is taken as the amount of crime. Therefore, the following steps can be taken to measure the virtual property with an unstable price. Firstly, the loss of the victim should be calculated, and the amount of crime should be determined by the loss of the victim. If the victim's loss can be calculated, the victim's loss should first be taken as the amount of crime. This concept is implemented in most property crimes.

The second step is calculated according to the market price when the crime is completed. It is an accepted principle in economics that prices are subject to market laws. It is reasonable to use the market price when the crime is completed to determine the amount of crime to determine the victim's loss. As for the determination of the amount of crime, the market price takes priority, rather than the benefits obtained by the perpetrator. When the actual loss of the victim cannot be determined, it shall be determined at the market price when the crime is completed. Thirdly, if the market price cannot be calculated, the amount of crime shall be determined according to the benefits obtained by the perpetrator. This is the maximum on the implementation of the principle of consistency between crime and punishment. When it is difficult to estimate the virtual property, it is in line with the principle of litigation economy to define the amount of crime based on the income of the actor. Lastly, if the price cannot be calculated and the actor has not sold, the criminal judge needs to make a free decision based on the specific case and social common sense. At this time, you can consult the network company and the players who have played the game for a long time, and appropriately refer to their opinions. If even the criminal judge cannot judge, or the price of virtual property cannot be estimated at all, under the premise of the establishment of the crime, when the price of the virtual property infringed is higher than the established standard of the property crime, the punishment is not based on the amount of the crime, but on the means, nature, consequences and other circumstances of the behavior.

4.2.2 Determination of the number of crimes committed against internet companies

The number of crimes committed against a network company that infringes on the production of virtual props cannot be estimated by the selling price of virtual property. This is because these virtual products have the characteristics of "pay once, pay back many times", that is, replication. Game manufacturers only need to design programs to obtain many virtual properties. If the crime amount is calculated according to the selling price, it will often make the crime amount too high, which does not conform to the principle of consistency between crime and punishment. The selling price is not the same as the market price. The selling price refers to the pricing of Internet companies, while the market price refers to the price recognized on the trading platform. The selling price of virtual property is often higher than the actual purchase price. For example, the selling price of QQ currency is 1 yuan, but the market price is 0.96 yuan. Many game props are sold at a discount. It is against the principle of benefiting the defendant to calculate the amount of crime according to the pricing of virtual property. In addition, when the perpetrator infringes on these virtual properties, if it is possible to count the losses caused to the injured unit due to the perpetrator's behavior, the resulting losses shall be the criminal amount. If the loss cannot be counted, the crime amount shall be determined in two steps. These two steps are to ensure that the amount of crime identified is close to the loss of the victim unit to the greatest extent.

Firstly, if the perpetrator sells these products, the criminal amount shall be determined according to the proceeds obtained. To ensure the stability of the network market, network service providers cannot sell the same type of virtual products without restrictions. The sale of the actor is equal to reducing the number of sales of the network service provider, and in disguised form, it absorbs the interests of the network company. Second, if the perpetrator does not sell these products, on the premise of the establishment of the crime. That is, when the price of the virtual property infringed is higher than the

standard for the establishment of the property crime, the punishment will not be based on the amount of the crime. However, on the means, nature, consequences, and other circumstances of the action.

Different types of crimes are affected by different possessory relationships, and the different types of crimes directly determine the specific path of criminal law protection. When choosing the specific path of criminal law protection, attention should be paid to the choice of legal interest order and whether there is a concurrence relationship. The determination of the amount of crime needs to strictly distinguish the infringed objects, and the determination methods are different according to the different amount of crime of the object. When determining the amount of crime, the principle of giving priority to the protection of the rights and interests of the victim shall be implemented, and the amount of crime determined shall be close to the actual loss of the victim to the greatest extent.

5. Conclusion

This article mainly focuses on how to rule infringement of game virtual property behavior. It is mainly divided into three aspects including the dilemma of behavior regulation, the legal catechism analysis of the problem and the study of the path of regulation. It is the mainstream view that criminal law is necessary to regulate the infringement of game virtual property. The determination of the applicable crime has become a more difficult problem. In this article, the author would like to identify the applicable crimes from the perspective of legality and reasonableness of the violations. It is hoped that such a study will help to provide a regulatory path when the virtual property of the game is infringed upon. China will be one of the world's largest game industry markets. Property transactions in games should also be taken seriously by criminal law. It would be great if the analysis could bring some diversified references to the legislators and the possibility of legal protection to the players' legal rights. Due to the limitation of space, the author looks forward to the opportunity to further study the sentencing standard and the legislation on virtual property of games soon.

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