Prior Art Defense in Patent Infringement Litigation in China: Overview of 12-Year-Long Judicial Practice (II)

Zhang Taolve and Qiao Lin

V. Third point of contention: Comparison methods in prior art defense (objects to be compared)

1. Two comparison methods provided in law and judicial interpretations

According to the expression "proving that technology …… it or he exploited belongs to the prior art" as recited in the China's Patent Law, for the prior art defense, the comparison should be directly made between the accused technology and the prior art. Suppose the patented technology is A, the accused technology is B and the prior art is C, the comparison should only be made between B and C according to the rationale of the China's Patent Law. Although the court has to specify the scope of C by means of A before the comparison, and in many cases define the technical features of B with the help of the abstracted technical features of A so as to facilitate the subsequent comparison between B and C, ⁴⁶ the rationale involves, in no way, the direct comparison between the patented technology (A) and the prior art (C).

However, the Interpretation on Several Issues Concerning the Application of Law in the Trial of Disputes over Patent Infringement (hereinafter referred to as the Interpretation) stipulates that the prior art defense is established on the premise that "all the technical features alleged to fall within the scope of protection of the patent right are identical to or of no substantial difference from the corresponding technical features of a single prior art technical solution". It means that only the technical features alleged to fall within

the scope of protection of the patent right are required for comparison. 47 Following this rationale, A and B are compared to screen the technical features of B in view of A to obtain B' and then compare B' and C, which requires more examination steps (Table 2). Obviously, after the comparison between A and B, all the technical features (B') alleged to fall within the scope of protection of the patent right are likely to be less than all the technical features of the accused technology B. For instance, suppose the accused technology B consists of three technical features a, b and c 48, but only the two technical features a and b fall within the scope of protection of the patented technology A. Under such circumstances, the defender only needs to find a corresponding prior art based on the two technical features a and b of B', rather than the three technical features a, b and c. The reduction of technical features means a broader scope of the potential prior art and may result in a higher success rate. 49 It can thus be seen that the comparison rationale of the Interpretation is advantageous to the defending party.

Table 2: Different prior art comparison methods stipulated in the Patent Law and the Interpretation

	Step 1	Step 2	Step 3	Step 4
Patent Law	Dividing	Dividing and	×	
Interpretation	and determining the technical features of the patent solution	determining the technical features of the accused solution	Determining all the technical features alleged to fall within the scope of protection of the patent right	Whether the required technical features are disclosed in the prior art

In accordance with the view of the Intellectual Property Court of the Supreme People's Court that participated in the drafting of the Interpretation, the comparison method of the Interpretation does not involve direct comparison between the patented technology (A) and the prior art (C) because the Interpretation only requires the comparison between the prior art and "the technical features alleged to fall within the scope of protection of the patent right, rather than all the technical features of the technology exploited by the accused infringer", and "whether the features eventually fall within the scope of protection of the patent right will not affect the establishment of the prior art defense". 50 Accordingly, only the technical features "alleged to fall within" (not necessarily those "that eventually fall within") the scope of protection of the patent are compared with the prior art, so the patented technology is not used as the basis for comparison. Similar provisions can also be found in trial guidelines of various local courts. For instance, the trial guidelines of the Beijing High People's Court state that "in order to examine whether the prior art defense is established, judgment shall be made as to whether the technical features alleged to fall within the scope of protection of the patent are identical or equivalent to the corresponding technical features of the prior art. The patent in suit and the prior art should not be compared". 51

However, the authors find that under the currently prevailing judging rationale of determining infringement first and then hearing the prior art defense in judicial practices, the "technical features alleged to fall within the scope of protection of the patent right" as eventually determined by the court are identical to the technical features of the patent in suit in most cases, and thus, the comparison for the prior art defense will in fact become the comparison between the technical features of the patent in suit and those of the prior art, ⁵² even if the courts do not admit. An example is given below to make this point clear.

In the first case: If the accused technology B consists of three technical features a, b and c, which correspond and are identical to the three technical features a1, b1 and c1 of the technology A of the patent in suit, the so-called "technical features alleged to fall within the scope of protection of the patent right" are actually the three technical features of the patented technology. ⁵³

In the second case: If the accused technology B consists of three technical features a, b and c, among which the technical features a and b correspond to the only two

technical features a1 and b1 of the technology A of the patent in suit, the so-called "technical features alleged to fall within the scope of protection of the patent right" are actually the two technical features of the patented technology.

In the three case: If the accused technology B consists of three technical features a, b and c, and the technology A of the patent in suit is composed of three technical features a1, b1 and d1, wherein the two technical features a1 and b1 correspond and are identical to the two technical features a and b of the accused technology B, but the technical feature d1 cannot be found in the accused technology B, as the patent infringement has been heard first, the court can directly determine that patent infringement is not established without analyzing the prior art defense. ⁵⁴

2. Local trial guidelines and interpretation of judicial policies

How to understand and apply the two inconsistent comparison methods as stipulated in the Patent Law and the Interpretation is one of the tricky issues in judicial practice. Some local courts adhere to the Patent Law, emphasizing that all the technical features of the accused technology shall be compared with the prior art. For instance, shortly after the third revision of the China's Patent Law (hereinafter referred to as the third revision), the Jiangsu High People's Court stated in its trial guidelines that "the comparison in the prior art defense is an overall judgment based on one-to -one comparison of technical features, that is to say, if after comparison all the technical features of the accused infringing product are identical or equivalent to the corresponding technical features of a prior art solution, it can be concluded that the prior art defense is established." 55 Accordingly, where the accused infringing product falls within the scope of protection of the patent, all the technical features thereof shall be compared.

The Supreme People's Court, however, showed a different opinion in an individual case later, in which the comparison method of the Interpretation was affirmed and expounded. In *Yancheng Zetian Machinery Co., Ltd. v. Yancheng Great Machinery Co., Ltd.* (hereinafter referred to as the Yancheng Zetian case), a retrial case concerning utility model patent infringement closed on 11 July 2012, the Supreme People's Court referred to the rationale mentioned in the Patent Law, i.e., "in the examination of the prior art defense, the comparison should be made between the accused technical solution and the prior art, rather than the prior art and the patented technical solution", and

meanwhile emphasized that as for the prior art defense, "examination is conducted with reference to the patent claims to determine the technical features of the accused technical solution alleged to fall within the scope of protection of the patent right and judge whether identical or equivalent technical features are disclosed in the prior art..... Technical features of the accused product which do not fall within the scope of protection of the patent right shall not be considered when judging whether the prior art defense is established." 56 Therefore, the technical features of the patent claim are the fundamental basis for comparison with the prior art, since the irrelevant technical features of the accused product will not be considered in the prior art defense, and the remaining technical features are undoubtedly technical features of the patent in suit. Obviously, the Supreme People's Court in the Yancheng Zetian case followed the rationale focusing on patent claims (selected technical features), which is in direct conflict with the rationale focusing on the accused product (all the technical features) adopted by the Jiangsu High People's Court.

Nevertheless, the conflict seems to have been soon coordinated to some extent. In the Annual Report on Intellectual Property Cases Published by the Supreme People's Court (2012) (hereinafter referred to as the Annual Report), the Supreme People's Court made some correction to the summarized gist of the judgment in the Yancheng Zetian case, indicating that "the comparison (in the prior art defense) is conducted between the accused technical solution and the prior art. Where they are not identical, patent claims can be referred to during examination to determine which technical features of the accused technical solution are alleged to fall within the scope of protection of the patent right and judge whether identical or equivalent technical features are disclosed in the prior art." ⁵⁷

This was considered as a "refinement and expansion" of the reasoning in the Yancheng Zetian case. ⁵⁸ However, the authors deem that the view presented in the Annual Report seems to harmonize the two inconsistent comparison rationales: First, it reiterates the basic principle of comparing the accused technical solution with the prior art in the Patent Law, which shows respect for the Patent Law; and second, it requires that the comparison method in the Interpretation should be used only where the accused technical solution is different from the prior art, which reflects that the Interpretation is a supplement to the Patent Law. In comparison with the judging rationale in the Yancheng Zetian case,

the view presented in the Annual Report is more reasonable and flexible, making a better balance between legality and judicial trial efficiency.

3. Comparison method in judicial practices

Judging from sample cases, before 2009, when facing the prior art defense, some courts compared the patent claims, the accused products and the prior art in a mixed way, or the judging documents lacked a clear distinction between the two comparison types. 59 Similar situation can also be found occasionally in cases closed after 2009. For instance, in Zhejiang Huangyan Plastic Machinery Co. Ltd. and others v. Shenzhen Hengtaida Industry Co., Ltd., an appellate case concerning patent infringement closed in 2010, the second-instance court compared the accused product with the prior art, determining that their technical features are identical and the prior art defense is established, and further compared the prior art with the patented technical solution, finding that there is a distinguishing technical feature therebetween. 60 Besides, in Chen Shundi v. Zhejiang Lexueer Household Products Co., Ltd., He Jianhua, and Wen Shidan (the third party), a dispute over invention patent infringement closed in 2013, the second - instance court deemed that "prior art documents only disclose a part of the technical features of the accused method, and the accused method is equivalent to that of the patent in suit. Hence, the prior art defense raised by Zhejiang Lexueer Household Products Co., Ltd. is not established." $^{\rm 61}$ These statements vaguely mix the infringement comparison with the determination of the prior art defense, which definitely did not comply with the provisions of the Patent Law or the Interpretation.

The sample cases also showed that after the promulgation of the Patent Law and the Interpretation, the courts stopped comparing the patents in suit and the prior art, but definitely cited the provisions of the Interpretation in more judgments to first determine the technical features alleged to fall within the scope of protection of the patents in suit and then compare the same with the prior art. For instance, in *Cixi Shuizhiyuan Water Equipment Co., Ltd. v. Zou Jinmeng*, a dispute over patent infringement closed in 2011, the first-instance, second-instance and retrial courts first analyzed all of the technical features of the accused product (piping connector) that fall within the scope of protection of the patent in suit, and then compared them with the corresponding technical features of the prior art. ⁶² In *ELE (Group) Co., Ltd. v. Xuncheng Electrical Co., Ltd., et al.*, an appel-

late case concerning utility model patent infringement closed in 2011, the court found that the eleven technical features of the accused product are features "alleged to fall within the scope of protection of the patent in suit" as they are identical or equivalent to the eleven technical features of the patent in suit (technical features F and G was not covered), and then compared those eleven features of the accused product with the prior art and found they are identical to or of no substantial difference from the corresponding technical features of the prior art solution. ⁶³

However, in some sample cases, the courts skipped over the step of deciding "the technical features alleged to fall within the scope of protection of the patent in suit" and directly compared the accused technology and the prior art. For instance, in Guangzhou Nuomi Metal & Plastic Co., Ltd. v. Chen Hongbo, the appellate case concerning utility model patent infringement closed in 2010, the court, though citing the provision of the Interpretation, did not analyze all the technical features that are alleged to fall within the scope of protection of the patent in suit. Instead, after determining that a patent constitutes the prior art, the court directly compared the prior art patent with the accused product, eventually concluding that "the technical solution disclosed in the claims, description and drawings of the patent contains the technical features of the accused product. The accused product does not constitute infringement due to the use of the prior art." 64 Such skipping of the selecting step may be related to the fact that the court had already determined at the infringement determination stage that the accused technical solution fully covers or is identical to the solution of the patent in suit. For instance, in Kunshan Hongjie Electronics Co., Ltd. v. Suzhou Kaloc Ergonomic Technology Co., Ltd., a dispute over utility model patent infringement closed in 2020, 65 since the parties concerned agreed that all the technical features of the two accused TV racks fully covered the technical features of claims 1-4 of the patent in suit, the court omitted to select the technical features in the determination of the prior art defense but directly concluded that all the technical features of the accused products are identical (or equivalent) to those of the prior art, thereby establishing the prior art defense.

Since the relationship between the two comparison methods stipulated in the Patent Law and the Interpretation is ambiguous, judgements in general fail to explain clearly why a comparison method was chosen. Regrettably, making comparison first according to the Patent Law, and then

according to the Interpretation when the accused technical solution is different from the prior art, as advocated by the Annual Report, is rare in judicial practice and not found in the reasoning of the sample cases.

VI. Fourth point of contention: The comparison standards for the prior art defense

1. Judicial interpretation and local trial guidelines

Before the third revision, Chinese scholars proposed different comparison standards for the prior art defense, such as the identicalness standard, the equivalence standard, the novelty standard, the limited inventiveness standard and the inventiveness (non-obviousness) standard. ⁶⁶ They embody different value orientations in favour of patentees or the public. The revised Patent Law mentions nothing of it, but the Interpretation provides for the "identical or no substantial difference" standard. ⁶⁷

Judging from the expression of the comparison standards, the Interpretation definitely borrowed the standard and terms from the patent infringement proceedings, because the expressions like novelty and inventiveness obviously originating from the patent prosecution are not appropriate for a patent infringement defense. In addition, the concepts of novelty and inventiveness are different from those of identicalness and equivalence in terms of scope and nature, and are not proper for use in the prior art defense. ⁶⁸

Next, the "identical or no substantial difference" standard is similar to the "identical or quite close" standard earlier suggested by some Japanese and Chinese scholars as both of them are aimed to confine the prior art defense to obviously simple cases and to largely preclude complicated cases so as to avoid potential conflict with patent invalidation proceedings. ⁶⁹ Under such a comparison rationale, the prior art defense must follow the principle of "single technical solution", that is to say, the prior art defense in principle can only cite one prior art, instead of a combination of two or more.

However, since the legislators tend to orient the prior art defense to be in favour of the public, local judicial authorities soon extensively interpreted the "no substantial difference" standard. Typical examples are the Guidance for Trial of Disputes over Patent Infringement (2011) (Article

13) 70 issued by the Shanghai High People's Court and the Guidelines for Patent Infringement Determination (2013) (Article 125) 71 issued by the Beijing High People's Court. They stipulate that where all the technical features alleged to fall within the scope of protection of the patent right "are identical or equivalent to the corresponding technical features of a prior art solution, or where the accused technical solution is a simple combination of the prior art and the common knowledge in the relevant field for those skilled in the art". the prior art defense is established. In comparison with the Interpretation, these provisions extend the prior art defense from two dimensions: first, as for technical features, "equivalent" features is allowed in addition to those of "no substantial difference"; and second, as for whole technical solutions, it is allowed to combine prior art with common knowledge in the relevant field, which somewhat breaks through the principle of comparison with a single prior art.

Reviewing its development, it can be seen that an extensive prior art defense had already appeared in various judicial interpretations and judgments 72 before the third revision. The standards at that time were even more liberal. For instance, in the Opinions on Several Issues Concerning Patent Infringement Determination (Trial) released in 2001, the Beijing High People's Court proposed the "equivalence" 73 and "obviousness" 74 standards for an "existing technology defense". In the Provisions on Several Issues Concerning Trial of Patent Infringement Disputes (Draft for Conference Discussion) released in 2003, the Supreme People's Court also allows the "simple combination" of well-known technology and common sense or common technology of those skilled in the art where technical features are not completely the same, "irrespective of whether the technical features of the accused product are identical or equivalent to the technical features recited in claims" 75; or even the "simple combination" of multiple well-known technologies as long as such combination "does not produce a new technical effect". 76 Although the "non-obviousness" standard and the approach of combining multiple prior art solutions inherently attached thereto had been abandoned due to its direct conflict with the "no substantial difference" standard of the Interpretation, the "equivalence" standard and the "simple combination of prior art and common knowledge" still survive tenaciously as a tool for judicial expansion of the prior art defense.

2. Comparison standards in cases

According to the sample cases, courts adhered to the

"identical or no substantial difference" standard in most cases. For instance, in Cixi Shuizhiyuan Water Equipment Co., Ltd. v. Zou Jinmeng, a dispute over patent infringement, the court determined that the prior art defense is established because the technical solution disclosed in the prior art (a Korean patent) is of no substantial difference from the accused technical solution. 77 In those cases where the distinguishing feature is merely a direct substitution for the conventional means, the "no substantial difference" standard governs. For instance, in Shenzhen Edan Instruments, Inc. v. Shenzhen Mindray Bio-Medical Electronics Co., Ltd., a dispute over patent infringement 78, the court held that a foolproof device can be provided on demand by disposing a foolproof projection on a plug and a foolproof recess in a socket, or vice versa. The distinguishing features are direct substitution for the conventional means and there is no substantial difference therebetween. However, if the two technical solutions bring different technical effects, the court usually finds that there exists a "substantial difference". For instance, in Guangzhou Zhaoying Metal Co., Ltd. v. Huanggang Aiger Metal Co., Ltd., a dispute over utility model patent infringement 79, the court held that although the smoke hole of the accused product has a diameter larger than that of the cross-section of the cigarette holder, the technical effect that a cavity is formed for preventing water from being sucked into a mouth cannot be derived from the ratio of the cross-sectional areas of the smoke hole and the cigarette holder, thereby rendering it impossible to prove that the accused product is of substantial difference from the prior art.

It shall be noted that although the equivalence standard and the "simple combination of the prior art and common knowledge" are not directly stipulated in the Interpretation, judging from the reasoning in some sample judgments, they have been widely applied in cases and become a vital auxiliary criterion for the court in the determination of "substantial difference". Regarding the equivalence standard, the statistics concerning the sample cases showed that about one third of the cases where the prior art defense was successful were established on it. For instance, in Kunshan Hongjie Electronics Co., Ltd. v. Suzhou Kaloc Ergonomic Technology Co., Ltd., a dispute over utility model patent infringement, the first-instance court found that the only difference between the accused technology and the prior art lies in the structural feature of the rotatable connecting shaft. But they "have no substantial difference

and constitute equivalence as they are both aimed to connect the connecting arm and the connecting sheet, and thus are substantially the same means, achieve substantially the same function, and generate substantially the same effect. Therefore, they can be envisaged by those skilled in the art without inventive labor." 80 In this case, the court obviously regarded equivalent technical features as technical features having "no substantial difference", which was also backed by the Supreme People's Court. 81 Furthermore, in Ou Dejian v. Tosca Corporation, an appellate case concerning invention patent infringement, the court held that the distinguishing features of the accused technology over the prior art are either "substantially identical technical means with nuances in the implementation modes that are just a direct substitution for the customary technical means employed by those skilled in the art" or "components having substantially the same functions.....To solve corresponding technical problems by means of such components belongs to customary technical means employed by those skilled in the art", and therefore determined that the distinguishing features are "common knowledge in the field, and no inventive effort is required for those skilled in the art to make use of said technical means" and therefore "the US patent and the accused product cannot be deemed as having substantial difference". 82 It can be seen that local courts have incorporated various concepts like the substitution for customary technical means, equivalent features and common knowledge into the scope of "no substantial difference" as stipulated in the Interpretation.

In many cases, the courts rejected the prior art defense by finding that a distinguishing feature was not common knowledge or there is a lack of evidence to support the contrary.83 Some of these cases were concluded by the Supreme People's Court.84 For example, in ZhongYu Electronics (Shanghai) Co., Ltd. v. Shanghai Jiuying Electronic Technology Co., a dispute over utility model patent infringement, the Supreme People's Court found that the distinguishing feature (a specific circuit board structure) "was not disclosed in the reference document and was not a technical feature that could be directly or unambiguously derived from the prior art by a person of ordinary skill in the art based on common knowledge. Therefore, the accused technical solution is substantially different from the prior art solution".85 This shows that the Supreme People's Court, when examining the prior art defense, has also incorporated the "simple combination" of prior art and "common knowledge" under the concept of "no substantial difference" provided in the Interpretation.

VII. Evaluation and outlook

1. Pros and cons of the third revision

Before the formal introduction of the prior art defense into the Patent Law, there had been controversies over the scope of technical solution, comparison sequence, comparison methods (objects to be compared) and comparison standards involved in the prior art defense. In the third revision, the Patent Law only provided for the comparison methods and the objects to be compared, i.e., it clarified that comparison shall be made between the accused solution and the prior art. While supplementing the Patent Law, the later promulgated Interpretation only responded to the issue concerning comparison standards by putting forward the "identical or no substantial difference" rule. In this regard, the original intention of legislators to establish a "solid legal basis" through legislation to thereby avoid "inconsistencies in implementation" was not fully realized.

The imperfections in the third revision of the Patent Law in 2008 and the later Interpretation have led to uncertainties in the application of law regarding the prior art defense in China. Some are remaining issues, such as whether a conflicting application can serve as the basis for the prior art defense, and whether infringement comparison is a prestep for the prior art defense; while some others are new issues arising from the application of the new rules, typically like the inconsistency of the provisions on comparison methods (objects to be compared) between the Patent Law and the Interpretation, and the understanding of the "no substantial difference" standard, especially when common knowledge and equivalence are involved.

2. Gains and losses on judicial application after the third revision

In spite of the above-mentioned shortcomings at both the legislative and judicial interpretation levels, the Chinese judicial authorities, through 12-year-long judicial practice, have gradually clarified some issues through large number of cases and local trial guidelines. However, there are still issues that need to be made clear.

First, as for the conflicting application defense, a consensus has been gradually reached in judicial practice that conflicting application defense should be accepted and examined with reference to the prior art defense. The only re-

maining issue may be whether a conflicting application can only be used as the basis of a defense in literal infringement cases where the accused technical solution is identical to the technical solution of the conflicting application. If the answer is yes, such as in an opinion 86 given by the Shanghai High Court, the application of the conflicting application defense will be confined and simplified, avoiding complexities in infringement by equivalence. However, since the prior art defense neither precludes its application in infringement under the doctrine of equivalents nor prohibits the equivalence standard in comparison, what could be the reasons for rejecting them in the conflicting application defense, if the latter is applied "with reference to the prior art defense"? From our point of view, starting from the fact that a conflicting application does not belong to the prior art, if the simple combination of the conflicting application and common knowledge in the relevant field was allowed "with reference to the prior art defense", it would harm the balance of interests of the patent law, because such a combination would go beyond the expectation of patentees and the public. Further, to reject such a combination is consistent with the practice that a conflicting application cannot be used to assess inventive step 87. However, the above logic does not necessarily preclude the equivalent solution of a conflicting application when it is considered in a defense "with reference to the prior art defense". If, on this point, the Supreme People's Court takes a "pro-patentee" stance as the Shanghai High Court, it would be more appropriate to clarify and further explain it through judicial interpretations, judicial policies or guiding cases.

Second, the legislative, administrative and judicial authorities have not reached a consensus on the comparison sequence, especially whether infringement comparison should be a preceding step. However, judging from the trend reflected in the sample cases, the courts have taken the infringement determination as an indispensable prestep in recent years. The authors believe that this accords with not only the logic of patent infringement litigation but also the actual judicial trials in China. In terms of legal logic, the court needs to determine whether a defense is established only when the claim is established. In terms of China's judicial practice, if in pursuit of pure judicial efficiency, the first-instance court judged merely based on the prior art defense without examining patent infringement, its judgement is very likely to be revoked in the second instance, resulting in vexatious litigation. 88 Nevertheless, prior to the comparison between the accused technical solution and the prior art for the sake of the prior art defense, the court still needs to determine the scope of the prior art and "anchor" the features of the accused technical solution with reference to the patent claims. Therefore, in most cases, it is untenable that examining the prior art defense first can save judicial resources. Nevertheless, it is truly redundant that some courts discussed prior art defense after finding non-infringement of patent right.

Third, as for the new issues arising from the inconsistencies between the comparison methods (objects to be compared) in the Patent Law and the Interpretation, we think that the Annual Report of the Supreme People's Court has provided a relatively appropriate solution that, under the route provided therein, the Interpretation "supplements to, not substitute for," the Patent Law. 89 Accordingly, the defendants or courts may flexibly decide the comparison method on a case-by-case basis: if an accused infringer provides a prior art that discloses all the features of the accused technology, the prior art defense is established directly so as to simplify the procedure; or otherwise, the accused infringer may follow the Interpretation by trying to prove that those technical features of the accused technology that fall within the scope of protection of the patent right (which may be less than all the technical features of the accused technology) have been disclosed in an prior art. However, such a route with judicial wisdom has not received due attention since its birth, and local courts have not taken it as a guiding principle in subsequent trials. Although the judges in the sample cases selected either of the two comparison methods stipulated in the Patent Law and the Interpretation (mostly the latter), they generally avoid explaining their selection. Such vaguely-worded reasoning actually implied that the courts may actually have applied the comparison methods flexibly as stated in the Annual Report. This is regrettable and we hope the judicial policy makers will pay attention in the future.

Fourth, as for the "no substantial difference" standard stipulated in the Interpretation, its scope has been expanded to cover "substitution for customary technical means", equivalent technical features and "simple combination of the prior art and the common knowledge" through trial guidelines of local courts, case judgments (including those made by the Supreme Court) and the judges' academic articles ⁹⁰. Judging from the grounds for or against a prior art defense summarized from the sample cases (see Fig. 3),

this standard played a vital role in the establishment of the prior art defense, and has become the "battleground" in the trials and new focuses of the researches on China's prior art defense system. The concepts mentioned above are quite flexible and inevitably increase the uncertainties of the prior art defense. Balancing the interests between uncertain legal concepts and technical facts may be considered as the charm of the "patent game". However, as cases involving the prior art defense keep increasing, China's judicial authority should strictly define these legal concepts so as to prevent the interests of patentees from being improperly damaged. For instance, when considering "simple combination of the prior art and the common knowledge", judges should find out whether the common knowledge asserted in the prior art defense is in fact a prior art so as to prevent the violation of the one-to-one comparison principle. In addition, when facing the "substitution for conventional technical means", the judges should pay attention to whether the combination of several different technical features brings any new technical effects after such substitution.

The authors: Zhang Taolve, Associate Professor of Law School of Tongji University; and Qiao Lin, Postgraduate Student of Law School of Tongji University.

- ⁴⁶ Zhang Xiaodu (2008). Patent Infringement Determination: Theoretical Discussion and Trial Practice (p. 113). Law Press China.
- ⁴⁷ Yin Xintian (2011). *Introduction to the Patent Law of China* (p. 707). Intellectual Property Publishing House.
- ⁴⁸ To facilitate discussion, all the claims exemplified herein are close-ended.
- ⁴⁹ Zhang Guangliang (2010). Rules applicable to prior art defense: Difference in law provisions and analysis thereof. *China Patents & Trademarks*, 2, 53.
- ⁵⁰ Kong Xiangjun, Wang Yongchang and Li Jian (2010). Several issues concerning the application of the Interpretation of the Supreme People's Court on Several Issues Concerning the Application of Law in the Trial of Disputes over Patent Infringement. *Electronics Intellectual Property*, *2*, 80.
- Articles 143 and 144 of Guidelines for Patent Infringement Determination issued by the Beijing High People's Court in 2017; and Article 131 (which only relates to the prior art defense for design patent infringement) of Guidelines for Patent Infringement Determination issued by the Beijing High People's Court in 2013.
- See the Civil Judgment No. Zhezhizhongzi 399/2013. The court held that "the evidence provided by Annai Corporation fails to disclose the

specific internal structure of the product, especially the technical features of the hollow detachable structure (the inventive feature of the patent in suit), and there is no basis for comparison between the prior art and all the technical features of the Annai's accused product alleged to fall within the scope of protection of the patent right."

⁵³ See the Civil Judgment No. Zhe01minchu 2291/2019. In this case, after determining that the accused product contains technical features that are identical or equivalent to those of the patent in suit, the court directly took the technical features of the patent as the comparison basis in the prior art defense, holding that "the additional technical feature of claim 4 of the present patent is not disclosed in the patent (prior art), and meanwhile there is no evidence showing that said feature belongs to the common knowledge in the field". Hence, the prior art defense was rejected.

⁵⁴ If the court continues to examine the prior art defense, "the technical features alleged to fall within the scope of protection of the patent right" shall be only the two technical features a and b of the accused technology B (corresponding to the features al and bl of the patented technology A). Under such circumstances, the patented technical solution is no longer the compared object, which, however, seems never occur in judicial practice.

- Jiangsu High People's Court. Guidelines for Trial of Disputes over Patent Infringement (2010). Item 5.1.5 Comparison Method.
- ⁵⁶ See the Civil Ruling No. Minshenzi 18/2012 issued by the Supreme People's Court.
- ⁵⁷ See Article 9 of the Annual Report on Intellectual Property Cases Published by the Supreme People's Court (2012).
- ⁵⁸ Wang Chao. Practical researches on prior art defense (II): Comparison order, published on 25 October 2017. WeChat Account: SHIPA. Last visit on 24 April 2021.
- ⁵⁹ See the Civil Judgment No. Huyizhongminwu(zhi)chuzi 379/2006. In this case, the court determined that the accused product was completely identical to the technical solution of claim 4 when referring to claim 2 of the patent, and was different from the prior art.
- 60 See the Civil Judgment No. Yuegaofaminsanzhongzi 381/2009.

Another example is "Hangzhou Sanofi-Aventis Pharmaceutical Co., Ltd. v. Shenzhen Neptunus Pharmaceutical Co., Ltd. and Shanghai KEYYF Co., Ltd., a dispute over invention patent infringement". See the Civil Judgment No. Huyizhongminwu(zhi)chuzi 379/2006.

- 61 See the Civil Judgment No. Mintizi 225/2013.
- ⁶² See the Civil Judgment No. Mintizi 343/2011. The first-instance and second-instance courts both rejected the prior art defense because the prior art did not fully disclose all the technical features of the accused product that are alleged to fall within the scope of protection of the patent right. However, in the retrial phase, the Supreme People's Court

overturned the above finding, determining that the solution of the prior art has no substantial difference from the technical solution of the accused product.

- 63 See the Civil Judgment No. Minsanzhongzi 1/2011.
- ⁶⁴ See the Civil Judgment No. Yuegaofaminsanzhongzi 141/2010.
- 65 See the Civil Judgment No. Zuigaofazhiminzhong 412/2020.
- ⁶⁶ Zhang Peng and Cui Guozhen (2009). Probe into comparison methods and comparison standards of the prior art defense. *Intellectual Property*, 1, 64.
- ⁶⁷ The Jiangsu High Court also incorporated every word of the statement in the Interpretation into its trial guidelines. Jiangsu High People's Court. Guidelines for Trial of Disputes over Patent Infringement (2010). Item 5.1.5 Comparison Method.
- ⁶⁸ Zhang Rongyan (2007). Reexamination of prior art defense determination. *China Patents & Trademarks*, 4, 67.
- ⁶⁹ Nobuhiro Nakayama (April 2000). Section 8 Infringement. Industrial Property Law. Koubundou Publisher. Cited from Zhang Xiaodu (2008), Patent Infringement Determination: Theoretical Discussion and Trial Practice (pp. 105-106). Law Press • China.

Yin Xintian (2005). *Protection of Patent Right* (2nd edition, p. 494). Intellectual Property Publishing House.

- ⁷⁰ Article 13 of the Guidance for Trial of Disputes over Patent Infringement (2011) issued by the Shanghai High People's Court reads that "·····The prior art defense rules can be applied in infringement by equivalence and literal infringement. If all the technical features alleged to fall within the scope of protection of the patent right are identical or equivalent to the corresponding technical features of a single prior art solution, or a person ordinarily skilled in the art deems that the accused technical solution results from a simple combination of a prior art and common knowledge in the art, the technology employed by the accused infringer shall be deemed to belong to the prior art, and the prior art defense is established."
- ⁷¹ Article 137 of the Guidelines for Patent Infringement Determination issued by the Beijing High People's Court in 2017.
- ⁷² "Hangzhou Sanofi Aventis Pharmaceutical Co., Ltd. v. Shenzhen Neptunus Pharmaceutical Co., Ltd. and Shanghai KEYYF Co., Ltd., a dispute over invention patent infringement". See the Civil Judgment No. Huyizhongminwu(zhi)chuzi 379/2006.
- ⁷³ Article 100 of the Opinions on Several Issues Concerning Patent Infringement Determination (Trial) released by the Beijing High People's Court in 2001 reads that the existing technology defense means that in a patent infringement lawsuit, where an accused object (product or method) is equivalent to the technical solution of the patent claim, if the defendant responds with corresponding evidence to prove that the accused object (product or method) is equivalent to an existing technol-

ogy, the defendant's act does not infringe the plaintiff's patent right.

- ⁷⁴ Article 101 of the Opinions on Several Issues Concerning Patent Infringement Determination (Trial) released by the Beijing High People's Court in 2001 reads that when used for infringement defense, the existing technology shall be a single technical solution existing before the filing date of a patent or a technical solution resulting from an obvious simple combination of existing technologies for a person ordinarily skilled in the art.
- ⁷⁵ Article 40.3 of the Provisions on Several Issues Concerning Trial of Patent Infringement Disputes (Draft for Conference Discussion) released by the Supreme People's Court in 2003 reads that when judging the well-known technology defense, the people's court shall compare the accused article with a single well-known technology. After comparison, if the technical features of the accused article are identical to those of the single well-known technology, or though not completely identical, belongs to a simple combination of the well-known technology and the common sense or widely-known technology, the people's court shall determine that the widely-known technology defense is established and the accused infringer does not commit patent infringement irrespective of whether the technical features of the accused article are identical or equivalent to the technical features of the claim.
- ⁷⁶ Article 40.4 of the Provisions on Several Issues Concerning Trial of Patent Infringement Disputes (Draft for Conference Discussion) released by the Supreme People's Court in 2003 reads that where for a person skilled in the art deems that the technology used in the accused article is an obvious simple combination of more than one well-known technologies and brings no new technical effect, the people's court can also determine that the well-known technology defense is established and the accused infringer does not commit patent infringement.
- ⁷⁷ See the Civil Judgment No. Mintizi 343/2011.
- ⁷⁸ See the Civil Judgment No. Minminzhong 965/2019.
- ⁷⁹ See the Civil Ruling No. Minshenzi 1180/2010.
- ⁸⁰ See the Civil Judgment No. Zuigaofazhiminzhong 412/2020.
- ⁸¹ For instance, the Intellectual Property Court of the Supreme People's Court holds that the "no substantial difference" rule can be applied in practice with reference to the equivalent standard. See supra note 50.
- 82 See the Civil Judgment No. Yuegaofaminsanzhongzi 197/2010.
- ⁸³ For instance, Liang Botao v. Ningbo Chejiaxuanxin Weiye Technology Co., Ltd. and Ruizhou Lvzhou Real Estate Development Co., Ltd., a dispute over invention patent infringement. See the Civil Judgment No. Zhe02zhiminchu 201/2019. Yongkang Aoya Trade Co., Ltd. v. Hunan Jiancheng Information Technology Co., Ltd., Kongkang Wanfan Trade Co., Ltd. and Zhejiang Tmall Network Co., Ltd., a dispute over utility model patent infringement. See the Civil Ruling No. Zuigaofa-

zhiminzhong 624/2019.

⁸⁴ For instance, *Shimano Corporation v. Ningbo Ripin Industry and Trading Co.*, a dispute over patent infringement. See the Civil Judgment No. Mintizi 1/2012.

Ying Guojun v. Zhejiang Fudi Machinery Co., Ltd., a dispute over invention patent infringement. See the Civil Judgment No. Zuigaofazhiminzhong 1259/2020.

- 85 See the Civil Judgment No. Mintizi 306/2011.
- Article 14 of the Guidance for Trial of Disputes over Patent Infringement (2011) issued by the Shanghai High People's Court reads that in case of literal infringement, where the accused technical solution is identical to the technical solution of the conflicting application, a defense can be applied on the analogy of the prior art defense. Where the accused infringer asserts that patent infringement did not exist based on that the technology exploited thereby has been disclosed in a conflicting application, its defense can be examined on the analogy of the

prior art defense in case of literal infringement, and only where the accused technical solution is identical to the technical solution disclosed in the conflicting application, the non-infringement defense can be established.

- ⁸⁷ It is stipulated in the second paragraph in Part II, Chapter Four (Inventive step), Section 2.1 (Prior art) of the Guidelines for Patent Examination that the contents of a patent application filed by any entity or individual with the Patent Office previously before the filing date of the application being examined, and published or announced after said filing date, as referred to in Article 22.2, do not fall within the prior art, and therefore shall not be taken into account when inventive step of the application is assessed.
- ⁸⁸ Wang Dongyong (2013). Application of prior art defense and determination of damages amount. *The People's Judicature*, 4, 49.
- ⁸⁹ See supra note 49, pp. 53-54.
- 90 See supra note 50.

Judicial Panel to Focus on Monopoly Cases

The Beijing Intellectual Property Court has set up a panel to handle cases involving competition and monopolies among businesses after seeing a rapid growth of such disputes in recent years.

On 16 March 2022, the Beijing Intellectual Property Court convened a press conference on the trial of competition and monopoly cases. Song Yushui, vice-president of the court, said that from November 2014 — when the court was established — to the end of last year, 1,436 related cases were filed. Of these, 1,244 were resolved, wherein 529 cases were accepted and 470 cases were concluded at first instance, and 907 cases were accepted and 774 cases were concluded at second instance.

"The number of such cases has increased rapidly over the past few years," she said. "They have not only covered traditional industries, including those in the service and manufacturing sectors, but have also targeted enterprises linked to new major fields, such as information security, digital economy, internet platforms and technological innovation," she said.

Data showed that the number of monopoly and unfair competition cases heard by the court rose to 306 last year from 184 in 2020.

"That number is expected to exceed 500 this year," Song estimated.

To that end, she said the court has established a judicial panel that will specialize in handling such cases. The judge will conduct research on the disputes and be better trained to deal with them.

Si Pinhua, a judge of the court, said that the aim is to enhance public awareness of fair competition, keep the market in order and promote industrial development through the panel's verdicts.

"While resolving irregularities in some new fields, our rulings should also provide the space for the industries to further develop, and we have to give equal protection to every market entity in the case hearings," he said.

"No matter where an enterprise comes from or how influential it is, we'll protect its legitimate rights, trying our best to create a fair, transparent and predictable business environment for it."

Xie Zhenke, a presiding judge of the court, released the Top 10 Typical Competition and Monopoly Cases heard by the Beijing Intellectual Property Court on the press conference.

Source: China Daily