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## **The Truth about the Shogi Smartphone Incident**

*It has been alleged that the challenger for the Ryuo title, shogi's most prestigious prize, cheated by using a smartphone. He has been banned from playing, but there is still much that remains unclear, including the evidence. Based on the initial accusations of the players concerned, we pursue the real truth of one of the greatest scandals in shogi history.*

"It's not certain, but it's as close to certain as can be."

This was the comment of three title-holder Yoshiharu Habu (46), the leading shogi player, in an e-mail to Akira Shima 9-dan, Managing Director of the Japan Shogi Association (JSA), who himself once held the Ryuo title.

The shogi world has been shaken to its roots by an unprecedented incident. On October 12, the JSA held an urgent press conference. It announced that Hiroyuki Miura (42), who had defeated Tadahisa Maruyama (46) to become challenger for the Ryuo title, would be replaced by Maruyama as the challenger. (The Ryuo title is currently held by Akira Watanabe, who is also the Kio titleholder.) The reason given for this was "suspicion of improper conduct" by Miura during his games and that, although he had responded to this allegation by stating that he would take a break from playing official games, he had failed to submit a written notification of this intention within the stipulated time limit. Accordingly, Miura was banned from official games for the rest of this year.

The "suspicion of improper conduct" was that, during certain games, Miura had cheated by leaving the playing room and accessing shogi software using a smartphone or other device.

With the increasing advances in artificial intelligence in recent years, shogi software has rapidly become stronger. Most professional shogi players have been amazed by its playing strength. In fact, in games between professionals

and computer software held in the Denou match series since 2012, the computers have won ten games, lost five, and drawn one.

Even so, however strong the software gets, shogi fans will continue to support shogi played by professionals. Games between human beings are still a great test of skill and concentration, giving rise to various drama, including blunders. That is the fascination of “human shogi.” In view of this, if the current suspicions turn out to be true, it could develop into a scandal that might threaten the very existence of professional shogi players. As of October 18, however, the JSA has not presented any conclusive proof that Miura was guilty of this improper conduct. On the other hand, Miura himself strongly denies any wrongdoing, stating that he has submitted images of all the applications on his smartphone.

### **Solving Shogi Problems at a Wedding Banquet**

On what basis did the JSA reach its decision to punish a professional player in this way? During our investigation, we discovered that a “secret meeting” of seven leading shogi players had been held on October 10. Before going into the details of that meeting, let us take a closer look at the shogi career and personality of Hiroyuki Miura.

Miura first came into prominence in 1996. At that time, Yoshiharu Habu had stunned the shogi world by achieving the unprecedented feat of simultaneously holding all seven titles (Ryuo, Meijin, Oi, Oza, Kio, Osho, and Kisei). It was Miura who ended Habu’s seven-title monopoly by brilliantly defeating him in a match for the Kisei title. Even now, Miura is one of the ten top-class professionals in the A division of the Junisen League, which determines the order of strength of all of the 160 or so professional players.

Miura lives in Takasaki City in Gunma Prefecture, where he was born and grew up. Because of his passion for shogi study and his solitary lifestyle, he was nicknamed “Musashi” after Miyamoto Musashi, the celebrated seventeenth century swordsman who lived as a mountain hermit. According to one story, at the wedding banquet of a fellow shogi professional, he passed the time quietly solving shogi problems – just one of many “strange episodes”

associated with Miura.

Since Miura had lived as a bachelor for a long time, shogi fans were amazed when his marriage to a woman seventeen years younger was announced two years ago. A resident of Takasaki who lives nearby commented, "His father died quite a while ago and his mother, who lived together with Miura, passed away in September last year. I hear his mother didn't get on well with his wife. On one occasion the mother complained to me that she had given his wife money for shopping and she'd spent it all on a luxury bag. 'What a terrible thing to do,' she said."

In fact, suspicion of cheating by Miura was first rumored among some shogi professionals around August this year. It all started with Miura's game against Toshiaki Kubo 9-dan (41) on July 26 in the tournament to decide the Ryuo challenger. Miura won the game easily, but Kubo felt there was something not quite right about it. Kubo commented, "I've played dozens of games against Miura, but unlike before, he left the room very many times." Of course, it is not against the rules to leave to go the washroom, etc. during a shogi game. Kubo continued, "There is no evidence, but I had the feeling he'd cheated."

### **Using Software to Study Play in Real Time**

After the game, Kubo asked an acquaintance who is a software expert to compare Miura's moves with those made by computer software and to investigate the moves he made after leaving the room. As a result, Kubo's suspicions became something close to certainty. At the regular players' meeting held on September 26, Kubo proposed that players should not be allowed to take electronic devices into the playing room. In response to this proposal, it was agreed that, from December 14, all electronic devices would be prohibited and that players should avoid leaving the room as much as possible during games. In fact, after Kubo made his proposal at the meeting, Miura raised his hand and said, "I'm in favor of that ban. But I've never done it myself." According to Kubo, "It's been said that I accused Miura directly, but I never once mentioned his name (including at the meeting). I only hope we can create an environment where we can enjoy playing shogi. Now that

the software is so strong, we need to take measures to prevent any kind of improper conduct.”

But this was only the beginning: not long afterwards another “suspicious game” took place. It was between Miura and Ryuo titleholder Akira Watanabe in the A division of the Junisen League on October 3. This game, an unusually decisive defeat for Watanabe, was a pivotal moment in the development of suspicions of cheating by Miura.

The game was relayed live online and some players used software to study the play in real time. They were apparently amazed at the extent to which Miura’s moves were the same as those output by the software. On that day too, Miura left the playing room about once every 30 minutes. One of the players who studied the game muttered, “I think Watanabe’s been had.”

Later Watanabe commented, “Immediately after the game, I thought I’d fallen victim to Miura’s research, but when those things were pointed out to me by the players who had been studying the game using software, I decided to do the same thing at home and found there was clearly something odd about it. This is the kind of feeling only professional players understand. I realized that even the variations that Miura told me he’d been looking at when we discussed the game afterwards were exactly the same as the software’s analysis.”

After that, Watanabe used software to investigate all the games Miura’s had played in recent years. “If 90 percent of the moves are the same as those the software plays, that doesn’t necessarily mean a player is cheating. The correspondence between the moves of software and moves played by me or by Habu, for instance, could be about 90 percent. On the other hand, even when the overall correspondence is only 40 percent, you could win by cheating at the most critical moment in the game. By looking at the rate of correspondence and the moments when the player left the room, a professional can determine whether someone has cheated.”

Indeed, even when professionals play shogi online without seeing their opponent, they can usually guess who they are playing from the kind of

moves they play. Similarly, when they play through a shogi game without looking at the names of the players, they can guess who they are from the playing style. "I have no doubt he did it," says Watanabe.

### **"99.9 percent Certain"**

Reaching this certainty was the beginning of Watanabe's dilemma. In one week's time he would have to play Miura for the Ryuo title. He couldn't bear the thought of sitting across the board from an opponent who was suspected of cheating, but there was no conclusive proof.

It was at this point that our reporter found out about the allegations and started work on the story. By that time, other journalists from major newspapers were also gathering information. According to Watanabe, "If the suspicions were to appear in the media after the Ryuo title match started, it was highly likely that the whole series would be suspended. Worse than that, the newspapers that sponsor title matches might withdraw their sponsorship due to this improper conduct. If that happened, I thought that the continuation of the JSA itself might be endangered. The worst-case scenario would be reports that the JSA had tried to cover up the suspicions even though they knew about it."

Accordingly, Watanabe decided to report the matter internally. On Friday, October 7, JSA Managing Director Shima's cell phone rang. The caller was Watanabe. "In a tense voice he told me he wanted to meet with Habu and Yasumitsu Sato (9-dan, 47)," said Shima. "He said it was a matter that needed to be discussed in a private place. It's very unusual for top shogi players to meet apart from professional games, so I sensed that it must be something pretty serious."

At 7.30 on the evening of Monday, October 10, seven professional players including those whose presence Watanabe had requested gathered at Shima's home in Setagaya ward for a "secret meeting". In addition to the current three top-ranked players - Ryuo titleholder Watanabe, the current Meijin Amahiko Sato (28), and triple-title holder Habu - the meeting was

attended by professional players' chairman Yasumitsu Sato, Shota Chida 5-dan (22), the leading authority on computer software among shogi professionals, and Koji Tanigawa (54), president of the JSA.

Watanabe showed the assembled company four games. In addition to his own game against Miura in the Junisen League, these were the game between Miura and Kubo mentioned earlier and the second and third games of the match between Miura and Maruyama to decide the Ryuo challenger. He outlined the moves played and the times at which Miura left the room, showed a video of the post-mortem after his own game with Miura, and explained the variations analyzed by the software. Kubo took part in the meeting via telephone to explain what happened in his game.

"At first the mood was quite neutral and the participants were doubtful about the accusations," said Shima, "but as Watanabe showed us the detailed data together with his notes on when Miura left the room, the mood gradually changed and became more serious."

In particular, the players present thought it was impossible in normal circumstances for the variations Miura mentioned in the post-mortem discussion with Watanabe to exactly the same as the lines analyzed by the software. For a professional shogi player, this was sufficient to suggest that the suspicions had been justified. Soon the participants were making remarks like "this really is looking bad." Finally, they reached the conclusion that it was 99.9 percent certain that Miura had cheated.

A gloomy atmosphere pervaded the room. Not a single player was able to affirm Miura's innocence. After the meeting, Shima telephoned Miura and put it to him that he had cheated, but Miura denied it. Accordingly, Shima informed him that he would be required to answer questions at a directors' meeting of the JSA the following day. Unable to hide his confusion at this sudden turn of events, Miura spoke very quickly, "In that case, please tell Watanabe to attend the meeting."

At the directors' meeting held at 1.00 p.m. on October 11, Watanabe, Miura and Chida met with the JSA directors. In fact, just before this meeting, the

JSA had obtained an important piece of information. They learned from someone in the media that Miura had asked another player, Tatusya Sanmaido 4-dan (23), to show him how to operate his personal computer using a smartphone. The same morning they summoned Sanmaido to ask him about this, and he confirmed that it was true.

Our reporter also interviewed Sanmaido:

Reporter: "Did you tell Miura how to operate a computer by remote control?"

Sanmaido: "Miura asked about the existence of an application for remote control of a PC using a smartphone."

Reporter: "So it's possible to operate shogi software on a PC via smartphone?"

Sanmaido: "Yes, that would be relatively easy to do if you use the Team Viewer app."

Reporter: "Did he actually do it or was he intending to do it?"

Sanmaido: "During his games? No, surely not. That's unthinkable."

### **Miura Refuses to Hand Over his Smartphone**

The speed and precision with which software analyzes positions can be greatly enhanced by using a personal computer. In June this year, the latest and strongest shogi software Gikou was made available free of charge. After that, ShogiDroid, an interface that makes it possible to use Gikou on a smartphone, was developed. Some people say this is sufficient to make full use of Gikou, but it also seems certain that Miura wanted to know how to make use of remote control by a PC, which has higher performance than a smartphone.

A few hours after Tatsuya Sanmaido's testimony, the directors' meeting began. Watanabe pointed out that not only the moves Miura made in their game but also the variations he mentioned in the post-mortem were the same as those of the software, that the correspondence between these moves was extremely high throughout the game, and that Miura had left the room many times. In response to these allegations, Miura said that this was just "coincidental" and that he left the room because he felt tired and wanted to

lie down in the security staff room. He appeared to be very flustered. From time to time he smiled incongruously, saying, "I didn't do it." At one point, he suddenly mentioned the names of the three members of the security staff and talked about the differences in their personalities. He also mentioned that his wife had downloaded the Gikou software. After about an hour had passed, Miura said, "If you suspect me so strongly, I will take a break from shogi for a while."

After the meeting, staff of the JSA accompanied Miura to his home in Takasaki City and took away his personal computer. However, Miura refused to hand over his smartphone.

Since this meeting, Miura has left his home and gone into hiding. He has reportedly telephoned certain friends and fellow professionals, protesting his innocence and asking for their support.

There is still no conclusive physical evidence that Miura committed the acts he is suspected of. He has also never been caught actually doing it. However, the fact that a group of leading players carefully investigated four of his games and reached the conclusion that he is guilty carries a lot of weight.

On the other hand, the JSA also bears a heavy responsibility: in spite of being aware that shogi software has become much stronger over the past few years, it has failed to take any measures to prevent such an incident.

At 5.30 p.m. on October 13, our reporter confronted JSA president Koji Tanigawa as he left the Shogi Kaikan in Osaka after finishing a game.

Reporter: "We hear that there have been suspicions about Hiroyuki Miura since this summer. Wasn't the JSA too slow to respond?"

Tanigawa: "Well, we didn't have any conclusive evidence. We did make various inquiries."

Reporter: "Do you have the evidence now?"

Tanigawa: "I can't reply to that question at the moment."

Reporter: "What about your own responsibility as president of the JSA?"

Tanigawa "First and foremost, there are many things I have to do to restore



the situation to normal."

The JSA has made it clear that it has no intention of conducting any additional investigation into Miura's conduct. At the beginning of next year, he will resume his career as a professional shogi player. From now on, shogi fans may well view professional games with a skeptical attitude. Yoshiharu Habu's e-mail comment quoted at the beginning of this article carries much weight. Will the JSA play the best moves in the little time it has remaining?