

Polygraphy in South Korea

Yung Hyeock Lee

The information in this report comes primarily from my observation of the polygraph community in South Korea during the years of 2004-2008 and from interviews with eight South Korean polygraph examiners, who have an average of 20 years of testing experience. One of the examiners is from the Department of Defense, another is from the Institute of Scientific Investigation, and the remaining five are from the Korean National Police. One examiner received professional polygraph basic training through an American polygraph school. Six were trained in South Korea. All are currently active examiners, although two examiners are facing retirement in the immediate future. Several internal memos and statistics from the agencies are also used for writing this article.

History: U.S. Army influence

The first polygraph testing by a South Korean examiner was conducted in 1961 during the course of a larceny investigation on a military base. The examiner was military police Captain Ji, who attended the U.S. Army's three week school (USAMPS) at Fort Gordon in 1960. [Although some South Korean military personnel served as interpreters for U.S. Army polygraph examiners in the 1950s, they did not conduct any polygraph examinations themselves (Yankee, 1991).] When Captain Ji returned from training, he was appointed as chief of the Military Scientific Investigation Laboratory. His role was to conduct polygraph testing of South Korean soldiers who were suspects in crimes that occurred on a military base and to offer a polygraph course when it was necessary. His activities were often helped by the U.S. Army CID.

The laboratory had a chronic problem of high turnover among polygraph examiners which, in fact, still exists today (Park, 1999). The reason for this was because the position of polygraph examiner in the organization was not advantageous to promotions; examiners, therefore, preferred to leave the work after a short period of time. The short supply of

examiner candidates made Captain Ji the primary member in the laboratory for a fairly long time. Despite this circumstance the laboratory provided polygraph examinations for non-military agencies when they were requested for suspects who were not soldiers.

In 1979, Robert Kern, of the U.S. Army CID, offered the first formal polygraph basic classes for the training of new South Korean examiners. The course was repeated over the years until the early 1990s. But the course was irregularly provided and it was taught by Korean examiners. The students who took the course were usually military personnel mixed with agents from several organizations including the Korean National Police, the Supreme Prosecutor's Office, the National Institute of Scientific Investigation, and the National Intelligence Service. After 1979, however, each agency started to have its own polygraph training program. In 1984, the Korean Polygraph Association (KPA) was formed and Jong-Gul Lee, who had worked for the laboratory, was elected as the President.

In the same year, the Supreme Prosecutor's office sent agents to the John E. Reid Polygraph Training School and the Backster School of Lie Detection in the U.S. In 1992 Pan-Kyu Park, who was the examiner in the laboratory, was sent to the Virginia School of Polygraph by the Department of Defense. After Mr. Park returned, he published a book in Korean titled "Polygraph Examination," which is almost entirely based upon materials used by American polygraph schools. It is the only existing book about the polygraph in South Korea. Park also worked with Dr. John Kircher, who was a professor at the University of Utah, and with the Stoelting Company; together they developed Korean language software for the Stoelting CPS 85000. In 1995, Dr. Kircher visited South Korea for a week and taught about the Utah Technique.

In 1996 when Mr. Park became the President of the Korean Polygraph Association, a revision of the By-Laws was made to improve the quality of training of examiners.

This led to a change in the curriculum of training courses; they were strengthened and the qualifications for examiners were raised. Coincidentally, during this time, all of the KPA members who belonged to the Supreme Prosecutor's office withdrew from the KPA. They still have not rejoined the Association. The reason for this was that there was discord between those examiners and others in the laboratory in the Department of Defense. There seemed to be an interest in taking more and faster initiatives in polygraph development and the two sides did not agree on the new KPA policy. Some conflicts among agencies still exist today.

Examiners

There is no private polygraph examiner in South Korea. All active examiners are government employees. As of 2006, there are 58 examiners in the Korea National Police, 19 in the Supreme Prosecutor's office, 19 in the Institute of Science laboratory in the Department of Defense, and 19 in the National Institute of Scientific Investigation. The National Intelligence Service carries out polygraph examinations but the number of polygraph examiners is not available. There are only seven female examiners in the country.

According to the KPA By-Laws, there are several requirements to be an examiner. First of all, certain years of education and investigative experience are required. When the examiner has only a high school graduate diploma, he/she needs to have over five years of criminal investigation experience. With a two-year college diploma, over three years of investigation experience is needed. When an examiner holds a four-year college degree, over one year of investigation experience is required.

Secondly, a prospective examiner must satisfactorily complete 300 hours of basic polygraph training. After the basic training, intern training is required to be continued for six months under a senior examiner's supervision. The intern supervisors have a minimum of five years of polygraph testing experience and have been approved by the KPA.

Intern examiners who have carried out polygraph exams in 50 criminal cases are qualified to take the final written exam which is comprised of two main areas; substantive polygraph subjects and others such as physiology, psychology, psychopathology, and pharmacology. A total score of 70% with at least 60% in each subject is a passing score.

Additionally, a prospective examiner should be over the age of 25 and should not have a political, religious, or regional bias. His or her physical size should not be extreme enough to influence polygraph exam results. And he/she should be a person of good moral character. According to a KPA report, of the 79 examiners who completed the KPA basic professional polygraph training during 1999-2003, 11% held a Master's degree, 47% held a bachelor's degree, 8% held a two-year college degree, and 34% had a high school diploma.

Among the South Korean examiners, some have been trained in the U.S. For instance, Pan-gyu Park at the Ministry of National Defense was trained at the Virginia School of Polygraph in the U.S. Since 1992, most examiners of the Supreme Prosecutor's office have been trained at American polygraph schools; those schools are the Virginia School of Polygraph, the University of Utah, Arizona School of Polygraph Science, Florida Pensacola Police Department, and the Reid School.

Examination

In South Korea polygraph examinations are primarily used for criminal cases and traffic accident cases. Other forms of testing such as post conviction sex offender testing, fidelity testing, and pre-employment or other screening examinations are not conducted. According to a Korean National Police White Paper in 2004, 2,778 cases and 4,511 persons were tested by the police polygraph examiners. Statistics about other agencies are not available. Of the total police polygraph examinations, 56% (2,510/4,511) were for traffic accident investigations and 44% (2,001/4,511) were criminal cases. With respect to traffic accident testing, 18% of the exams were rendered as 'Inconclusive'. These results are shown in Table 1.

The polygraph examinations involving traffic accidents in South Korea may be unique and may not be widely used elsewhere. The practice started in 1995 due to a public demand for scientific investigation of the accident. Drivers in South Korea are criminally punished if the traffic accident results in death or is caused by one of 10 negligent violations, including violation of a traffic signal. A hit and run driver is also criminally punished. Whether drivers turn out to be negligent is a critical matter. It was not unusual to often observe a strong dispute in the street between the two parties. The public therefore requested that the police be fair and objective in making a determination of which party was at fault as the main cause of an accident. Since 1995, when the Korean National Police decided to test drivers involved in traffic accidents, aggressive disagreements between the involved parties were significantly reduced. In fact, about 44% of traffic accident testing ends up with a confession prior to the in-test phase of a polygraph examination (Choi & Kim, 2004).

There is some uniqueness in the testing of traffic accident participants in South Korea. In general, the two parties who are involved in an accident are simultaneously interviewed in the pre-test phase. The examiner allows them to argue against each other about the situation and listens carefully. The examiner often intervenes in their adversarial communication for the purpose of

making sure there is a relevant setting for the examinations to follow.

After polygraph testing questions are individually reviewed, both parties are tested. It is often the case with the testing results that one is rendered as 'Deception Indicate' and the other as 'No Deception Indicated.' There are some rare cases, however, where both parties result in 'NDI' findings. Some South Korean examiners, thus, are concerned that the use of polygraph examinations in traffic accidents might cause errors, either false negative or false positive. The false negative error may be made when both of the parties believe they did not neglect a traffic sign, and then the opinion of 'NDI' is rendered in each case. A false positive error might occur when the accident is related to the death of a person. Although the driver did not neglect any traffic sign or duty, the psychological sensitivity caused by the death itself might lead to the opinion of 'DI.' Despite these concerns, testing in traffic accidents is a primary form of polygraph examinations in South Korea.

The internal report from the Seoul Police Headquarters indicated that 49% of traffic accident investigations involving polygraph examinations are caused by violation of a traffic signal, 16% are hit and run cases, 9% are switching driver issues, and 7% are due to driver's negligence at a pedestrian crossing.

Table 1

Year 2003 Number of Police Polygraph Examination with the Results

	N of cases	N of examinee	DI	NDI	INC (%)
Traffic	1,548	2,510	945(38%)	1,105(44%)	460 (18%)
Homicide	114	140	27(19%)	97(69%)	16 (11%)
Robbery	22	43	13(30%)	25(58%)	5 (12%)
Rape	180	292	137(47%)	128(44%)	27 (9%)
Arson	56	76	22(29%)	35(46%)	9 (12%)
Theft	142	210	66(31%)	108(51%)	36 (17%)
Assault	251	449	204(45%)	169(38%)	76 (17%)
Others	465	791	327(41%)	337(43%)	127 (16%)
Total	2,778	4,511	1,741	2,004	766 (17%)

(N denotes Number, DI denotes Deception Indicated, NDI denotes Non deception Indicated, INC denotes Inconclusive, Others are mainly comprised of white collar crimes such as embezzlement, forgery, etc)

As shown in Table 1, in criminal cases, the two most frequent testing issues were assault (251 cases) and rape (180 cases) excluding crimes in the “other” category. Table 1 also shows that about half of the persons who were examined in both the assault and the rape instances were reported to be DI. About two thirds of the persons examined in homicide cases were reported to be telling the truth (NDI).

Testing formats and instrumentation

South Korean examiners use the following testing formats: Concealed Information, Peak of Tension Tests, Utah Probable Lie Test, Reid Technique, Keeler Technique (Relevant-Irrelevant Technique), Backster Zone Comparison Test, Federal (US) Zone Comparison Test, and Army Modified General Question Test.

Questions used in the formats are similar to those used in the United States. However, comparison questions seem to be set up somewhat differently than in America because of cultural differences between the countries (Yankee, 1991). If an American is taking something from a friend without permission, the meaning of his/her act for most Americans is stealing. But South Korean people would not consider it as a theft. The meaning of stealing would not be the same. It needs to be very specific for South Korean examinees. Thus, instead of simply asking, for example, ‘Have you ever stolen anything before you entered college?’ South Korean examiners will usually go into detail about the meaning of stealing for comparison questions. It is also important to note that, because Asians in general are very much concerned about embarrassing their family or losing face, the comparison questions which touch upon collective aspects of self are more effective. Examples of such questions are as follows: “Have you ever done anything that would shame your family?” and “Have you ever done anything that would disgrace your family?”

As of 2004, the Korea National Police had 17 computerized polygraph instruments and 15 analog instruments. There are also 13 computerized and 13 analog instruments in the Supreme Prosecutor’s Office. The Institute of Science Investigation in the Department of Defense equips four computerized and four

analog instruments, and the National Institute of Science Investigation has one computerized and two analog instruments. All of the instruments were purchased from the Stoelting Company in the U.S. The computerized polygraphs were put to use in 1995. The Institute of Science Investigation in the Department of Defense purchased a Computer Voice Stress Analyzer in 2002 although it is not currently put to use for detecting deception.

Since the polygraph is not as publicized as in America, examinees in South Korea do not possess much information about polygraph instrumentation. According to the survey of 82 military officers and 162 soldiers who were given polygraph examination during 2000-2004 for criminal investigation purposes, 90% of officers and 74% soldiers anticipated that polygraph instrumentation would look like a huge and complicated machine (Lee, 2006).

There is no internet site that purports to teach examinees how to defeat polygraph testing. The information about counter-measures in polygraph testing is rarely known to the public. Accordingly, a movement sensor pad is rarely used by polygraph examiners in South Korea. However, some examiners recently began using a sensor pad to experiment with its contribution to their testing process.

Legal issues

The Supreme Court has refused to admit polygraph results; it has viewed polygraph results as unreliable and irrelevant for knowing the truth. The first decision addressing the admissibility of polygraph evidence was made in 1979. The Court upheld that polygraph evidence was inadmissible unless three assumptions could be met; 1) telling a lie leads to changes in human psychology; 2) the psychological changes cause physiological reactions; and 3) polygraph instrumentation and testing is able to correctly measure the physiological reactions and reliably determine whether the person is telling the truth.

On the last third assumption requirement, a special emphasis was made. The Court wrote that the pertinent factors for

scientific polygraph testing were supposed to be a credible instrument, a reliable and standardized testing format, and a highly qualified examiner. The Court, however, found that all these requirements were not met in the case of 1979 and thus the polygraph result was ruled inadmissible. The Court also added that even when the polygraph evidence was qualified to be admitted, it should serve only as circumstantial evidence, not direct evidence. The decision to take a polygraph examination should be voluntary for admissibility purposes.

Regarding a confession that occurs after polygraph testing, the Supreme Court found it admissible. In 1983, the Court held that there was no reason to believe that the confession was improperly and involuntarily obtained after a polygraph examination if there was no coercion between the period of the polygraph examination and the subsequent interrogation.

In South Korea there is no licensing law that regulates examiners. No law restricting the work of polygraph examiners exists either.

Association: KPA

In 1982 polygraph examiners started to form informal gatherings to exchange information about testing techniques. And in 1984 the Korean Polygraph Association was officially founded. The mission of the association is to 1) conduct research on polygraph and exchange information, 2) ensure polygraph examiners interests and develop their quality, 3) advance scientific investigation, and 4) promote friendship among the members. The members now include all active and retired polygraph examiners except for examiners from the Supreme Prosecutor's office in South Korea, who left the Association in 1996. The Association consists of a total of 150 members as of 2006.

The KPA has been organizing its annual meetings and publishing the Korean Polygraph Association Journal until now. There were 30 persons trained in 1999, 11 in 2001, and 18 in 2003. Cho, Hyu-Nam who is an examiner in the Korean National Police is the president of the KPA as of this writing.

Problems

There are several problems faced by the South Korean polygraph community. The non-existence of a professional polygraph school in South Korea is big problem. Standardized high quality training and an anticipated regular session of such training is not warranted. Stopgap training instead of a solid educational program is something that needs to be corrected.

Furthermore, the absence of an effective governing entity which can effectively oversee the polygraph program in South Korea is very problematic. Although the KPA has attempted to enforce certain rules through new By-Laws, there is still doubt in its governing authority. For example, agents who receive only in-house training without completing basic polygraph training courses provided by the KPA are allowed to carry out examinations. Even after agents get their training, they sometimes modify testing procedures on their own. The KPA should have regulations governing such practices but, unfortunately, it doesn't. Such a loose KPA administration can eventually lead to a deteriorating status of the profession.

The problem of overwork and dual assignments for South Korean polygraph examiners is very noticeable. According to regulations of the KPA, only one or two persons a day from the same case and one person a day typically is allowed to be tested. However, testing more than three persons per day is a normal case load for South Korean examiners. Although polygraph examiners are well aware of these improper conditions for testing, organizational pressures govern their work.

There is also the related problem concerning the professionalism of polygraph examiners. In an effort to reduce organizational workload, polygraph examiners are usually assigned to additional positions such as an evidence technician or investigative staff. Their pride and professionalism are easily compromised by these situations. I suspect that these circumstances are the primary reasons for polygraph examiners' high turnover in South Korea.

In addition to the problems mentioned above, the instrumentation needs to be more modernized. Some analog instruments have been used for a long time. The aging equipment would influence polygraph examiners' performance. It is hoped that the South Korean polygraph community can ensure a high standard in testing, thoroughly monitor the administration of polygraph examinations, and provide standardized formal and refresher training.

Research

The area of detecting deception has not received enough academic attention. Written work related to polygraph examinations were mostly about legal issues of polygraph evidence admissibility. Scientific experimental research on polygraph testing was never carried out and published in South Korea (Eom, Ji, & Park, 2008). However, a couple of articles using a correlational approach were recently published. They attempted to evaluate the accuracy of polygraph examinations by using the outcome of a prosecutor's decision as ground truth. Several descriptive analyses of polygraph results in conjunction with criminal case categories have also been recently published. These studies were not supported by the government. Overall, the lack of scientific research is a fundamental problem for the South Korean polygraph community.

Public issues

In 2006, Congressman Jung, Du-Un held a legislative public hearing on issues associated with the prevention of industrial espionage activity in South Korea. I was invited to make a presentation about the polygraph program as a measure to counter the espionage. Over the past five years, 96

trillion won (80 billion in US dollars) worth of industrial technology was stolen and sold to foreign companies in China (National Intelligence Service, 2007). I proposed the policy of periodic polygraph testing of the persons who routinely have access to core technology owned by the government and private sector (Lee, 2008). There was debate over whether such testing is an invasion of privacy and detrimental to interpersonal trust in an organization. The delegate of corporate sectors greatly worried about the moral aspect of the policy whereas the KPA welcomed it during the hearing. Since there is no private polygraph examiner in South Korea, who could test would-be industrial espionage was another matter of great concern. No formal policy was made after the public hearing.

I believe the absence of polygraph use in the private sector does not generate much publicity about the polygraph. Even when government polygraph testing cases are involved with a celebrity, only the fact that he/she was examined is reported. Neither positive nor negative discussion of polygraph testing has been revealed in such reports. Polygraph issues are not much publicized like in the US. However, public curiosity about polygraph testing seems to be prompted by media. Amusement programs featuring polygraph testing sporadically appear on television shows and the ratings are very high. Some famous singers, movie stars, or comedians are asked a series of embarrassing questions while connected to polygraph instruments on camera and in front of an audience. But this does not necessarily mean that there is a lot of public interest in the polygraph itself. Rather, it is safe to say that the public has lots of curiosity for knowing celebrity's private issues discovered by the examination in the show.

References

- Eom, Jin-Sup, Ji, Hyung-Ki, & Park, Kwangbai. (2008). Estimating the Accuracy of Polygraph Test, *Korean Journal of Psychological and Social Issues*, 16 (4), 1-18.
- Choi, Hyu-Tak, & Kim, He-Song. (2004). Useful Solution in Traffic Accident Investigation; Polygraph. *Korean Journal of Polygraph Association*, 6 (1), 27-31.
- Korea National Police Agency, (2004). Korea National Police White Paper.
- Lee, Yan-Soo (2006). Research on Admissibility of Polygraph Examination- focused on Efficient Utilization of Polygraph Examination in Military Criminal Investigation. Master's Thesis, Yon-Sei University.
- Lee, Yung Hyeock. (2008). Consideration of Polygraph Program as a Method to Counter Industrial Espionage in South Korea. *Korea National Police University Journal*, 28, 121-143.
- National Intelligence Service. (2007). *Industrial Technology Protection*, 7.
- Park, Pan-Kyu, (2003) *Polygraph Examination*. Seoul, SamUooSa.
- Park, Pan-Kyu, (1999). Effectiveness and Boundary of Polygraph. *Korean Criminological Review*, 10 (3), 43-96.
- Yankee, William (1991). *Polygraph Examiner Attitudes on Cross-Cultural Differences in the Far East*. Report No. DoDPI91-R-0001, Department of Defense Polygraph Institute.