Empirical Methods in Law and Psychology: A Review Note on the Research Fostering the New Korean Jury System

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Abstract

Research related to the installation of the new Korean jury system in 2008 employed innovative empirical methods in the analysis of jury decision-making and its efficacy. The present research note describes various methods of a series of studies in the context of evidence-based practice, as the research findings were applied to the development of the Korean jury system. The methods of these studies in law and psychology harnessed the synergy and efficiencies of many multidisciplinary investigations. For example, information entropy theory, originating from physics and engineering sciences, was applied to understand jury deliberation, and a diversity index from biological research was adapted to conduct quantitative analysis of jurors' interactions. Specifically, social network analyses, followed by information entropy comparisons, revealed how mock jury deliberations varied in terms of equality, richness, and evenness, depending on whether verdicts were bound by unanimity or majority decision rules. Probability theories and social and cognitive psychology theories were also applied and countered negative arguments often made regarding hung juries under the unanimity rule. Overall, the empirical methods proved to be powerful tools in supporting the design of the new system. Perhaps the methods can be applied to strengthening legal policy-making, establishing standards of judicial efficiency, and gauging the legal validity of jury outcomes in other jurisdictions. Further discussion is provided of the tensions and dynamics between the justice sector and the empirical science of law and psychology, surrounding the development of evidence-based practice in the Korean context.

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When Münsterberg[1], an experimental psychologist of the early twentieth century, was bringing research evidence into the law and the justice sector, the main use for experimental psychological research at the turn of the 20th Century was to provide evidence relevant to witness memory, false confessions, and related psychological factors. Since those days, empirical sciences have given legal professionals and theorists powerful research tools in an even broader range of legal practice and policy domains. The research inquiries often work on the micro level of trial and case evidence, for instance, with research topics such as face recognition and lie detection that help examinations in courtrooms. Furthermore, the research also sometimes supports macro level analysis inspiring legal system reform, such as research on structures of justice administration, and fundamental approaches to the exercise of the law.[2] Today, a growing body of multidisciplinary research assists law reformers achieve a better quality of justice across the globe.[3]

One notable area of collaborative multidisciplinary research has been developing in Korea, where legal scholars, justice sector officials, and behavioural scientists have joined to design and implement a jury system.[4] This resonates with similar collaborative efforts made in Japan in the same period.[5] Hans, [6] as a comparative jury researcher, suggested that the Korean jury system ("Guk-min cham-yeo jae-pan": citizen participation trials) provided a natural

[1] Hugo Münsterberg, *On the Witness Stand: Essays on Psychology and Crime* (McCluer Company, 1908).
[2] Neil Brewer and Kipling D. Williams (eds), *Psychology and Law: An Empirical Perspective* (Guilford Publications, 2017).; Makiko Naka, Yuji Itoh, and Kayo Matsuo, 'Psychology and Law in Japan: From the Lab to Applied Knowledge in the Criminal Justice System (symposium sponsored by Japanese Society for Law and Psychology)' (2016) 51 *International Journal of Psychology* 597; Martine Powell, Nina Westra, Jane Goodman-Delahunty, and Anne Sophie Pichler, *An Evaluation of How Evidence is Elicited from Complainants of Child Sexual Abuse* (Report, Royal Commission into Institutional Responses to Child Sexual Abuse, August 2016).
[3] David Canter and Rita Žukauskiene (eds), *Psychology and Law: Bridging the gap* (Routledge, 2008).
[4] Sang-Hoon Han and Kwangbai Park, 'Citizen Participation in Criminal Trials of Korea: A Statistical Portrait of the First Four Years' (2012) 3 *Yonsei Law Journal.* 55.
[5] Masahiro Fujita and Hotta Syugo, 'The Impact of Differential Information between Lay Participants and Professional Judges on Deliberative Decision-Making' (2010) 38(4) *International Journal of Law, Crime and Justice* 216.; Makoto Ibusuki, 'Quo Vadis: First Year Inspection to Japanese Mixed Jury Trial' (2010) 12 *Asian-Pacific Law and Policy Journal* 24.; Kent Anderson and Mark Nolan, 'Lay Participation in the Japanese Justice System: A Few Preliminary Thoughts Regarding the Lay Assessor System (Saiban-in Seido) from Domestic Historical and International Psychological Perspectives' (2004) 37 *Vanderbilt Journal of Transnational Law*. 935.; Makiko Naka et al, 'Citizen's Psychological Knowledge, Legal Knowledge, and Attitudes toward Participation in the New Japanese Legal System, Saiban-in Seido' (2011) 17(7) *Psychology, Crime & Law* 621; Philip L Reichel and Yumi E Suzuki, 'Japan's Lay Judge System: A Summary of Its Development, Evaluation, and Current Status' (2015) 25(3) *International Criminal Justice Review* 247.
[6] Valerie P. Hans, 'Reflections on the Korean Jury Trial' (2014) 14(1) *Journal of Korean Law*. 81.

experimental laboratory for research concerning various jury systems in the world. This was because the new system was being *'designed'* and was about to provide data from actual trials that quite unique research was stimulated. For the first time in their history, the people of the Korean peninsula now have a trial system involving lay participation. Launched in 2008, the Korean system has received both theoretical and practical scrutiny drawing onglobal and historical experiences and insights,[7] particularly regarding its efficacy as a justice-delivery system in real-world circumstances.[8]

Whereas in Europe the jury trial system traced back many hundreds, if not thousands of years[9], the system signified a radical concept and social change for Koreans. The previous Korean criminal justice system was inquisitorial: trials were heard and decided by professional judges, and no lay citizens were involved. For cultural and historical reasons, popular acceptance of the inquisitorial legal system has been strong through the nation's modern history. In comparison, the adversarial common law framework in the jury system was viewed with some suspicion. Consequently, the idea of adopting a system of jury trials—so-called lay citizen participation trials—met with significant scepticism and uncertainty. Critics pointed to the failings of jury trial systems in other countries and railed against the incongruity of an "alien" justice system implanted in their society.[10] The official rationale finally given for the jury system relied on two arguments: (1) citizen participation in the legal system would help mature the nation's democracy through providing the people with the power of practicing justice, and, (2) citizen participation would help restore legitimacy to the justice system that was seen to be untrustworthy at the time[11]. The public debate and speculations among justice professionals prompted scientific investigations with empirical research projects.

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[7] Valerie P. Hans and Neil Vidmar, *Judging the Jury* (Basic Books, 2001); Martin F. Kaplan and Ana M. Martín (eds), *Understanding World Jury Systems through Social Psychological Research* (Psychology Press, 2013); Richard Lempert, 'The American Jury System: A Synthetic Overview' (2015) 90(3) *Chicago-Kent Law Review* 825.

[8] Sanford H. Kadish, Stephen J. Schulhofer and Rachel E. Barkow, *Criminal Law and Its Processes: Cases and Materials* (Wolters Kluwer Law & Business, 2016).

[9] John Philip Dawson, *A History of Lay Judges* (Lawbook Exchange, 10th ed, 1999).

[10] Kwangbai Park, 'Letter Series to Member of Parliaments 2 "Don't You Trust Citizens?"' (2007) Research Association on Citizen Participation in the Criminal Justice System, *Proceedings of the First General Meeting and Symposium* 49.

[11] The Gukmin-eui Hyongsa Jaepan Chamyeo-e Gwanhan Beobryul [Act on Citizen Participation in Criminal Trials], Act. No. 8495, Jun. 1, 2007.

Responding to public uncertainty and scepticism, for instance, researchers in law and psychology were called upon to plan and execute sophisticated empirical studies to provide research evidence and bolster confidence about introducing a jury system in Korea. Even more experimental data were needed to design and implement the system.

The first major thrust of this research activity was in 2004, four years before the planned system was to commence. At that time, senior judges and social psychologists, working with members of the Korean Supreme Court, organized a series of mock jury trials as similar reform and research initiatives were being practiced in Japan.[12] In addition, research funding was raised for a substantial project, encompassing 160 experimental mock trials, with approximately 1000 mock jurors in Korea. Furthermore 300 mock jurors in New York were engaged in the project to expand generalisability of the findings across legal cultures and jurisdictions. The results of those trials were documented in multiple academic research publications and public presentations[13]. Further research was also completed after the jury system had been launched and utilized for actual criminal cases. For example, Park[14] examined the actual verdicts from the new jury system and developed a measurement model concerning jurors' ability and accuracy in their legal decision making. Park (2011) evaluated the fact-finding ability and accuracy of 1,318 juror eligible adults as fact-finders in criminal trials based on a sequence of their verdict decisions over several different trial vignettes. The mock jurors' ability and accuracy were evaluated by the degree to which they applied the same implicit decision standard ("maximum alpha criterion") consistently over the several different trials. From the study, it was found that the most accurate jurors with the highest level of fact-finding ability were also those who highly rated the importance of judicial instructions for their decision making. Given that a great portion of the judicial instructions consisted of explanations of due process principles and rules (i.e., presumption of innocence, prosecutor's burden of proof, the standard of proof beyond a reasonable doubt, etc.), the

[12] Kwangbai Park et al, 'Social Conformity and Cognitive Conversion During Jury Deliberations: A Content Analysis of Deliberation Arguments in the First Officially Simulated Jury Trial in Korea' (2005) 19(3) *Korean Journal of Social and Personality Psychology* 1.
[13] Eunro Lee et al, 'Deliberation of Hung Juries: Mock Jury Simulation' (2010) 81 (spring) *Korean Criminological Review* 251; Eunro Lee and Kwangbai Park, 'An Effect of Decision Rule on the Stability of Mock Juries` Verdicts' (2009) 23(1) *Korean Journal of Social and Personality Psychology* 91. Jong-Dae Kim, Eunro Lee, and Sang-Hoon Han, 'Study on Mock Juror's understanding of Proof Beyond a Reasonable Doubt Standard' (2011) 21(2) *Yonsei Law Review* 1.
[14] Kwangbai Park, 'Estimating Juror Accuracy, Juror Ability, and the Relationship between Them' (2011) 35(4) *Law and Human Behavior* 288.

study found that the jurors with high ability and accuracy were those who apply due process principles and rules to decision making consistently over different trials.

The following sections describe empirical methods that played important roles in the development of the Korean jury system. Not all studies are reviewed because of the space limit of the present note and only a smaller group of example studies and their methods are discussed in relation to the new Korean jury system. For instance, even though the judge's instructions to the jury explaining the standard of reasonable doubt has been investigated with a psycholinguistic research design,[15] but it has been omitted in this review note.

Later sections of this paper review the design, launch, and implementation of the system, which span a period from 2008 to 2017. Though we focus on the empirical research during those developmental stages, we also address the tensions and dynamics between those generating the research evidence and those using the research findings for decision making, namely, the planners, policy makers, and other stakeholders. Finally, we suggest ways that the research methods related to the Korean jury system might also be applicable to judicial reforms in Australia and elsewhere.

Research agenda for securing empirical evidence for designing a new Korean jury system

The first and principal research topic preparatory to system design was to decide between the conventional jury system, which relies on a lay-citizen group of fact triers, or the Escabinado, i.e. a mixed jury system, which relies on both professional judges and citizen judges. The fact that Japan, a neighbouring country, was about to adopt a mixed-jury system in 2009[16] had an effect on the debate in Korea.

A second research topic was to decide jury decision rule, one of the most controversial elements of jury systems worldwide.[17] The options were the conventional unanimity rule and

[15] Kim et al, above n 13.

[16] Hiroshi Fukurai, 'The Rebirth of Japan's Petit Quasi-Jury and Grand Jury Systems: A Cross-National Analysis of Legal Consciousness and the Law Participatory Experience in Japan and the US' (2007) 40(2) *Cornell International Law Journal* 315.

[17] Serena Guarnaschelli, Richard D. McKelvey, and Thomas R. Palfrey, 'An Experimental Study of Jury Decision Rules' (2000) 94(2) *American Political Science Review* 407; Valerie P. Hans, John Gastil, and Traci Feller, 'Deliberative Democracy and the American Civil Jury' (2014) 11(4) *Journal of Empirical Legal Studies* 697; Michael J. Saks, *Jury Verdicts: The Role of Group Size and Social Decision Rule* (Lexington Books, 1977).

a less stringent majority rule. Of particular concern was the fear of producing too many hung juries in delivering a verdict and inefficiencies in the system.[18]

Some research items were specific to the Korean context and sometimes widely to Asian civil law jurisdictions, for instance, the public attitudes of deference to authority that were debated in Japan as well[19]. Specifically, questions were raised about whether Korean jurors would deliberate competently and rationally as fact finders or whether they would yield to social pressure and conform to majority opinions. As mentioned previously, such concerns had historical and cultural origins. No tradition had prepared Koreans for the idea that lay citizens—their peers—could become legal decision makers. The conventional wisdom was that only judges—highly trained professionals—could be trusted as fact triers. Yet, ironically enough, it was the distrust and dysfunction of the old justice system that led to the call for lay citizens as jurors.

To clarify the best approach to take and decide upon an urgent research agenda, lawyers, policy makers, plus social and legal psychologists joined efforts to conduct mock trial studies and scientific experiments. In addition, a Presidential work force (the Presidential Committee for Judicial Reform, 2005-2006) was established and commissioned research and preparation tasks including the implementation of the new system. By those means, empirical approaches were brought to bear on the momentous decision to reform the criminal justice system for an entire nation.

Mock trials by the Korean Supreme Court

In 2004, the first two mock jury trials in Korea took place in a modified courtroom in the Central Seoul District. The trial scenario in both trials involved an alleged murder for which evidence of guilt was weak. Lawyers played the roles of the presiding judges, prosecutor, and defence lawyer. Professional actors played the roles of defendant and witnesses, including the victim. All jurors were volunteer citizens recruited from the local community. The two mock trials differed only in the type of the jury, with one being the conventional lay jury and the

[18] Similar concerns were reported and discussed in Australian contexts. See Community Relations Division, NSW Department of Justice, Majority Verdicts (1 September 2015) <http://www.lawreform.justice.nsw.gov.au:80/Pages/lrc/lrc_completed_projects/lrc_completedprojects2000_2009/lrc_majorityverdictsbyjuries.aspx>; Refer to other contexts: Peter J. Coughlan, 'In Defense of Unanimous Jury Verdicts: Mistrials, Communication, and Strategic Voting' (2000) 94(2) *American Political Science Review* 375; Timothy Feddersen and Wolfgang Pesendorfer, 'Convicting the Innocent: The Inferiority of Unanimous Jury Verdicts under Strategic Voting' (1998) 92(1) *American Political Science Review* 23; Neil Vidmar, *World Jury Systems* (Oxford University Press, 2000).

[19] Anderson et al, above n 5.

other being a mixed jury of judges and citizen jurors. The overall objective was to identify differences in jury behaviours and functions by experimental condition, i.e. type of the jury.

In the first trial, evidence was presented before three conventional juries of twelve persons each. After hearing evidence, all three jury panels deliberated and rendered a verdict of not guilty. The deliberations were video recorded, and the jurors responded to surveys before and after their jury service.[20] In the second mock trial, evidence was presented before two versions of the European-style Escabindo mixed jury, one consisting of two judges and three jurors and the other consisting of one judge and five jurors.[21] Again, jury deliberations were video recorded, and the jurors responded to surveys before and after their jury service. The analyses of data from the mock trials revealed significant differences in how the two jury types functioned. Those results, in turn, were critical to decisions regarding the general planning and design of the Korean system.

Understanding jury deliberation: Using trend analysis, network analysis, information entropy, and group psychology theories.

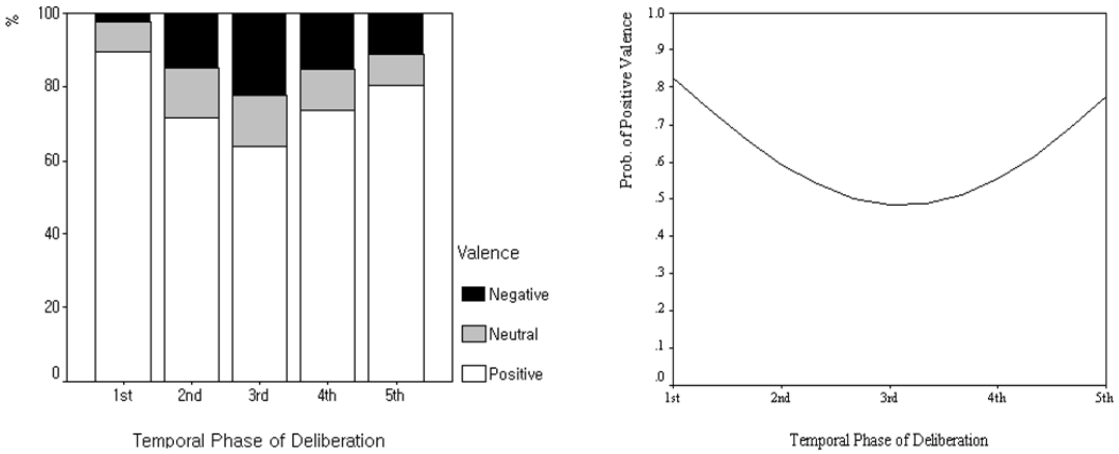
Trend analysis of jury deliberations. In Figure 1, empirical findings from the Korean Supreme Court mock trials are displayed. The results are from trend analyses over five phases of each jury deliberation. All 36 jurors from the three conventional juries participated in deliberations describing their thoughts and opinions, and the transcripts of their statements were analysed into units of individual utterances. Subsequently, each of those utterances were examined and coded for valence, that is, whether the utterance contained a positive, neutral, or negative term regarding the defendant's guilt.

In the left chart of Panel (a), the five bars from left to right depict the valence distributions for each of five phases of jury deliberation. The majority of jurors began deliberations with the opinion "Not Guilty", when they predominantly referred to the defendant in positive terms (more than 95% of the utterances). In the middle phases of deliberation, the jurors were more willing to speak negatively or neutrally of the defendant, with negative and neutral terms appearing in 40% of the statements (at Phase 3). Finally, the percentage of positive terms recovered in their utterances in the last phases, suggesting that by that time the jurors had established the notion of reasonable doubt into their deliberations. In the right graph of Panel

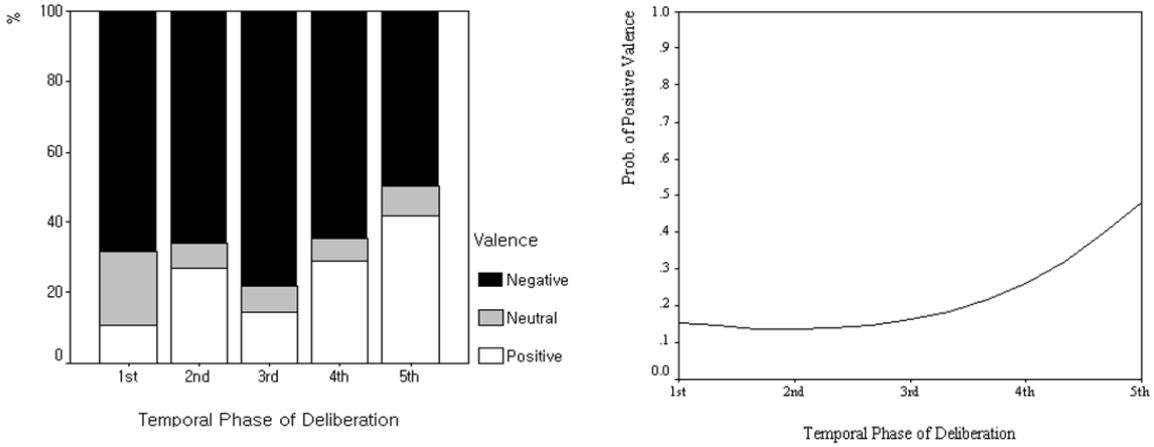
[20] Park et al, above n 12.
[21] Kwangbai Park and Eunro Lee, 'Three Descriptive Indices to Summarize the Quantitative Characteristics of Mock Jury Deliberations' (2006) 20(1) *Korean Journal of Social and Personality Psychology* 1.

(a) the U-shape curve plotted from the valence data is a graphic depiction of the trend in majority opinion during opposing arguments and the establishment of a reasonable doubt.

As shown in Panel (b) of Figure 1, the valence trend for the minority of jurors was starkly different. At the beginning of the deliberation, their utterances contained predominantly negative terms (70% at Phase 1). Yet, their consideration of positive arguments and terms regarding the defendant increased as deliberations continued. Finally, their utterances showed a higher proportion of neutral and positive terms for the defendant (around 50% at Phase 5). This upward trend, the J-Shape curve, indicated that they too had incorporated the principle of reasonable doubt into their deliberations. As it turned out, the minority group of jurors changed their initial opinion and came to agree with the majority in delivering a unanimous verdict of "Not Guilty".



(a) The distribution of utterance valence among the majority jurors with pre-verdict opinion of "Not Guilty".



(b) The distribution of utterance valence among the minority jurors with pre-verdict opinion of "Guilty" or "Undecided".

Figure 1. *Trend analysis of jury deliberation: The minority jurors' J curve reflecting cognitive conversion based on the standard of beyond a reasonable doubt and the majority jurors' U curve presenting their consideration of the minority jurors' arguments and evidence. Based on the results of Park et al., 2005.*

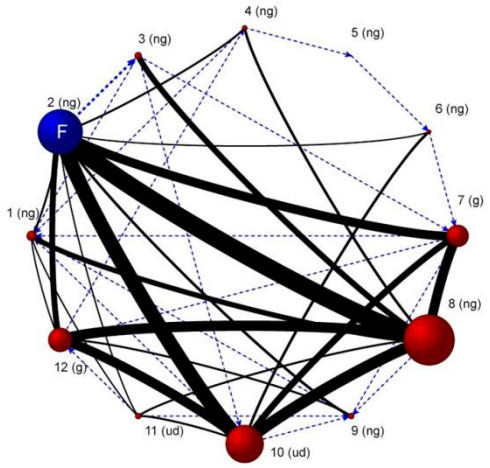
For the interpretation of the results, the researchers conducting the study drew upon a social psychological decision-making theory: conversion theory.[22] These data clearly showed that the minority jurors did neither conformed immediately nor effortlessly to the opinions of the majority jurors. Rather genuine persuasion and opinion change in the opinions of minority jurors were achieved through discussing whether there was reasonable doubt about the defendant's guilt. In addition, the ability of jurors to render unanimous verdicts through rational group processes was attributed to the openness of majority jurors to the opinions and arguments of minority jurors. Of further particular interest was the acquisition and display of experimental evidence to depict the discussion of reasonable doubt during jury deliberations.

The implications of the empirical approach in the study just described, which was tailored to meet the evidence needs for the jury system designing, was this: Korean lay persons were capable of serving as jurors and examining the evidence rather than merely agreeing too

[22] Edward Mabry, Ann Burnett, and Mike Allen, 'Jury Size and Decision Making' in Nancy A. Burrell et al (eds), *Managing Interpersonal Conflict: Advances Through Meta-Analysis* (Routledge, Taylor & Francis Group, 2014) 84; Serge Moscovici, 'Toward a Theory of Conversion Behavior' (1980) 13 *Advances in Experimental Social Psychology* 209; Lyn M. Van Swol and Cassandra L. Carlson, 'Language Use and Influence Among Minority, Majority, and Homogeneous Group Members' (2017) 44(4) *Communication Research* 512.

easily with the majority view. They showed they could participate in rigorous group processes to arrive at credible and rational legal decisions. This crucial finding gave policy makers, think tanks, and the general Korean public the confidence that a jury system was an achievable goal[23].

Social network analysis and information entropy of jury deliberations. Another remarkable method of social network analysis was used to investigate jury behaviour, as illustrated in Figure 2. In the diagram, the size of the dot/circle is proportional to the frequency of statements uttered by the respective juror during jury deliberation. Each line depicts the intervention path between any two jurors who spoke in response to or after each other's statement. The thicker the line is, the more frequently the two jurors intervened, or communicated, with each other. In this manner, the social network diagram gives interesting graphic expression to the data from group deliberations. For the actual analysis of the data (including the frequency of each juror's utterances, the number and direction of intervention paths, and the width of each intervention line) the researchers applied information theory[24] and calculated a species diversity index.[25]



- Dot/Circle: Each juror
- Line: Intervention path
- Line width: Proportional to the frequency of the intervention path
- F: Foreperson
- g: "Guilty" Pre-Deliberation Opinion

[23] Kwangbai Park, *Han Kyeore* (online), 9 February, 2007 <http://www.hani.co.kr/arti/society/society_general/189619.html >; Yoonhyoung Guil, *Han Kyeore* 21, 606 (online), 20 April, 2006 < http://legacy.www.hani.co.kr/section-021106000/2006/04/021106000200604200606022.html> http://legacy.www.hani.co.kr/section-021106000/2006/04/021106000200604200606022.html>

[24] Claude E. Shannon, 'A Mathematical Theory of Communication' (2001) 5(1) *Mobile Computing and Communications Review* 3.

[25] Nandita Ray and Pampa Bhattacharjee, 'Zooplankton Diversity of a Pond in Tripura by Shanon Diversity Index' (2014) 32(4B) *Environment and Ecology* 1741.

- ng: “Not Guilty” Pre-Deliberation Opinion
- ud: “Not decided” Pre-Deliberation Opinion

Figure 2. *Network analysis of jury deliberation: The larger dots represent more statements by the jurors during the deliberation and thicker lines depict more frequent communication between the two jurors. Using this entropy analysis, equality of juror utterances, richness of interventions, and evenness of interventions were indexed and compared among different types of juries. Based on the results of Park & Lee, 2006.*

After they developed three descriptive indices with this type of entropy analysis, Park & Lee (2006)[26] compared the equality, richness, and evenness of the three conventional-jury deliberations and those of the two mixed-jury deliberations. The results of the mixed-jury deliberations were substantially different from the results for the conventional-jury deliberations. The researchers, therefore, called for further studies to determine the effects of a wider range of factors, such as jury size, the judge’s style of leading deliberations in the mixed juries, and the percentage and characteristics of jurors in the subgroup representing the majority pre-verdict opinion, the subgroup representing the minority pre-verdict opinion, and the subgroup of undecided jurors. The results of the social network analysis were influential in the decision to adopt an adjusted conventional-jury system for the new Korean system, rather than the mixed-jury system being implemented in nearby Japan. The then-Presidential task force was aided with this empirical evidence [27] which highlights the power and importance of conducting tailored research in anticipating and advance of legal reforms.

Laboratory mock trials and research evidence upon jury decision rules and hung juries

In contrast to the Korean Supreme Court mock trial projects, further laboratory mock trials used either an edited trial video or a script vignette of a criminal trial. For the script vignette,

[26] Park and Lee, above n 21.
[27] Kwangbai Park, Personal retrospections of the committee meetings and discussions.

the criminal case material was adjusted from that of a widely-used scenario.[28] The video materials, however, were edited versions of the mock trial in the Korean Supreme Court project, or, in the case presented to the mock jurors in New York for expanded external validity of the research, they were edited video recordings of an actual American criminal trial. Details of the case being tried were manipulated to vary the strength of the evidence; there were four experimental conditions: (a) conflicting evidence, (b) strong evidence supporting innocence, (c) strong evidence supporting guilt, and (d) weak and vague evidence. A second experimental factor involved the jury decision rule: each jury was randomly assigned either to the unanimity rule condition or to the majority rule condition.[29] The jury size was chosen as eight persons as an even number close to the largest potential jury size ($N = 9$) to compare the verdicts between the unanimity and simple majority rule conditions.

Entropy analysis of the verdict data from 80 juries of eight persons showed that juries under the unanimity rule were more likely to render the same verdict for the same case (verdict stability) compared to juries under the majority rule. This greater verdict stability under the unanimity rule was related to deliberation characteristics. Especially for the cases with conflicting and vague evidence (experimental conditions (a) and (d) above), the jurors with majority opinions were more likely to consider arguments from jurors with minority opinions as the deliberation went on under the unanimity rule. Leniency contract theory[30] was applied to interpret why the unanimity rule disposes majority jurors to open up to minority opinions.

A measurement model of juror ability and confidence in the new Korean system

Whereas the Japanese mixed-jury system revived in 2009 was motivated to reflect common sense and community values in criminal justice decision making,[31] the motivation driving the

[28] Amanda Nicholson Bergold, *Diversity's Impact on the Quality of Deliberations* (PhD Thesis, City University of New York, 2017); Reid Hastie, Steven D. Penrod and Nancy Pennington. *Inside the Jury* (Lawbook Exchange, 1983).
[29] Lee et al, above n 13; Lee and Park, above n 13.
[30] William D. Crano and Xin Chen, 'The Leniency Contract and Persistence of Majority and Minority Influence' (1998) 74(6) *Journal of Personality and Social Psychology* 1437; William D. Crano and Radmila Prislin, 'Attitudes and Persuasion' (2006) 57 *Annual Review of Psychology* 345; Alan R. Johnson et al, 'Social Influence Interpretation of Interpersonal Processes and Team Performance over Time using Bayesian Model Selection' (2015) 41(2) *Journal of Management* 574.
[31] Kent Anderson and Leah Ambler, 'The Slow Birth of Japan's Quasi-jury System (Saiban-in Seido): Interim Report on the Road to Commencement' (2006) 11(21) *Zeitschrift für Japanisches Recht* 55; Kent Anderson and Mark Nolan, 'Lay Participation in the Japanese Justice System: a Few Preliminary Thoughts Regarding the Lay Assessor System (Saiban-in Seido) from Domestic Historical and International Psychological Perspectives' (2004) 37 *Vanderbilt Journal of Transnational Law* 935; Anna Dobrovolskaia, 'An All-Laymen Jury System Instead of the Lay Assessor (Saiban'in) System for Japan? Anglo-American-Style Jury Trials in Okinawa under the US Occupation' (2007) 12(24) *Zeitschrift für Japanisches Recht* 57; Lester W. Kiss, 'Reviving the Criminal

new Korean system was to extend to the lay citizen the power, rights, and obligations to engage in legal decision making, overcoming the lack of legitimacy of Korean judicial decision making. In other words, the Japanese mixed-jury ('saiban-in': jurors) system represented a model of cooperation between the professional judges and lay judges in a trial. In contrast, the Korean jury system placed lay jurors as independent decision makers on the defendant's guilt. Although the un-binding effect of the jury verdict to the final trial verdict by the judge has been yet to be rectified, deliberations by jury and its rendering a verdict represent the independency of lay jurors' legal decision making.

Accordingly, a critical question for the planning and design of the Korean jury system was whether lay jurors had the requisite skills and personal attributes to perform reliably as high-level fact finders.[32] In answer to that question, Park [33] developed a sophisticated model that shows the relationships between juror decision accuracy, juror ability, and trial difficulty. As a comprehensive psychometric approach, the Cronbach alpha reliability index and item response theory (IRT) analyses were utilised. Subsequently, the model showed that the ability of jurors may affect their accuracy, especially in difficult cases, more than do their attitudes, values, and biases. This research demonstrated that the abilities and decision accuracy of jurors can be analysed empirically, and that fact alone may have significance for similar research around the globe.

Ongoing research and developments since system launch in 2008.

The new Korean jury system (or the initial provisional version of the system) commenced in 2008; for the first time, lay citizens played significant roles as legal decision makers in the criminal justice system. The system emerged and was shaped from intense public debate and legal policy decisions by almost a decade as well as rigorous empirical research efforts.[34]

Jury in Japan' (1999) 62(2) *Law and Contemporary Problems* 261; Ingram Weber, 'The New Japanese Jury System: Empowering the Public, Preservation Continental Justice' (2009) 4 *East Asia Law Review* 125.

[32] Bruce D. Spencer, 'Estimating the Accuracy of Jury Verdicts' (2007) 4(2) *Journal of Empirical Legal Studies* 305; Bruce D. Spencer, 'When Do Latent Class Models Overstate Accuracy for Binary Classifiers? With Applications to Jury Accuracy, Survey Response Error, and Diagnostic Error' (Working Paper WP-08-10, Institute for Policy Research, Northwestern University, 26 November 2008)

[33] Park, above n 14.

[34] Hong Kyu Park, *Trial by Citizens!* (Saramsaenggak, 2000).

Finally, the new system was given a five-year trial period[35] and amendment bills are still being debated at the time of this writing in 2017.

During the first phase of its provisional existence (2008 - 2012), the new system had three distinctive features. First, a jury's verdict has not been binding due to constitutional reasons of the defendant' right to be tried by a judge as well as the infancy of the confidence in the system. Instead, the lay verdict has been considered advisory for the presiding judge who delivers the actual verdict. This fact moved Han & Park[36] to comment that "the Korean system should be called 'trial with jury' rather than 'trial by jury' that is found in common law countries such as the USA and Great Britain". Second, the jury size has varied depending on the type of case and severity of the offence as in Japan. Third, jury decisions have been subject to the unanimity rule. However, if a jury fails to achieve a consensus after deliberating for some duration, that jury should consult the judge and render a verdict under a majority rule. Those three features and the research relevant to each are detailed in the following sections.

Advisory status of the jury verdict

The initial advisory status of the jury's verdict and the stepwise introduction of the new system were concessions to prudence[37] over the law reasons of the constitutional challenge from code of the trial by judge: they eased the transition from the familiar inquisitorial system to the new jury system. In addition, the transition period was a time to address public and official misgivings about the use of experimental findings to bring about major reforms.[38] The advisory nature of the current jury verdict is fundamentally related to legal debates. Specifically, the Korean Constitution Article 27(1) describes "all citizens shall have the right to be tried in conformity with the Act by judges qualified under the Constitution and the Act"[39]. Some proponents of the Korean jury system argue that "Judges qualified under the Constitution and the Act" can be interpreted as authoritative effects of jurors' verdict should be recognized. Contrastingly, the opponents insist limiting it as a trained professional judge's

[35] The Gukmin-eui Hyongsa Jaepan Chamyeo-e Gwanhan Beobryul [Act on Citizen Participation in Criminal Trials], Act. No. 11155, Jan. 17, 2012.
[36] Han and Park, above n 4.
[37] Geary Choe, 'Revamping the Justice System:(Re) Defining the Role of Judges in Korea's Jury Trials' (2017) 18(1) *Australian Journal of Asian Law* 1.
[38] Park et al, above n 12; Park and Lee, above n 21; Park, above n 14.
[39] The Constitution of the Republic of Korea, art 27(1).

because the Korean Constitution Article 103 specifies that "judges shall rule independently according to their conscience and in conformity both itself and other relevant laws".

The civil forum by the Korean Supreme Court (2013)[40] also suggested actual binding of the jury verdict with the requirements of respecting and acknowledging the jury verdict for the trial verdict. Furthermore, the first clause of the Korean Constitution reading “All the power of the nation is from the citizens” will override the constitutional debate because jurors as citizens should be engaged in legal decision making, part of the judicial pillar of the three national powers (Korean Institute of Criminology, 2011)[41].

Although the advisory status of the jury verdict has been limited, the Korean jury system has been unique in that each real-world trial resulted in two verdicts, one from the jury and one from the judge(s). Researchers were quick to notice that a system of jury trials with two-verdict outcomes provided a rare opportunity to obtain real-world decision data with minimal measurement errors.[42] It is because verdict data are available in real time rather than retrospectively from participant interviews and surveys, as in other studies.[43]

Indeed, Kim, Park, Park, & Eom[44] were able to replicate the classic research by Kalven Jr & Zeisel[45] by using the real-world, real-time Korean trial data. In that study, the researchers compared 323 two-verdict sets from all Korean criminal jury trials from 2008 to 2010. Their analysis revealed that the judge-jury agreement was as high as 84% - 97.9%, depending on the strength of evidence. In the verdict pairs with disagreement, juries were more likely to render the verdict of not guilty, an outcome that was consistent with the jury leniency

[40] The Supreme Court of the Republic of Korea, Media Release (18 February 2013) <https://blog.naver.com/1invincible/90166617841>https://blog.naver.com/1invincible/90166617841>
[41] Korean Institute of Criminology, ‘Studies on the Criminal Justice Policies and Judicial Systems (V)-Focused on Evaluation Research on Civil Participation in Criminal Trials’ (2011)
[42] Theodore Eisenberg et al, ‘Judge-jury Agreement in Criminal Cases: A Partial Replication of Kalven and Zeisel's The American Jury’ (2005) 2(1) *Journal of Empirical Legal Studies* 171; Jr, Harry Kalven and Hans Zeisel, *The American Jury* (Little Brown and Company, 1966); Jennifer K. Robbennolt, ‘Evaluating Juries by Comparison to Judges: A Benchmark for Judging’ (2004) 32 *Florida State University Law Review*. 469.
[43] Eisenberg et al, ibid; Kalven and Zeisel, ibid.
[44] Sangjoon Kim et al, ‘Judge-Jury Agreement in Criminal Cases: The First Three Years of the Korean Jury System’ (2013) 10(1) *Journal of Empirical Legal Studies* 35.
[45] Kalven and Zeisel, above n 42.

hypothesis.[46] Those results were strikingly similar to the findings of Kalven Jr & Zeisel[47] and those of the relatively recent replication by Eisenberg et al.,[48] despite the cultural differences between Western societies (with adversarial systems) and Korea (with the inquisitorial system).

Furthermore, empirical evidence on the jurors' ability as decision-makers became obtainable. Kim et al.[49] estimated and compared the accuracy of the juries' and the judges' verdicts by using latent class analysis. When the true verdict was guilty (that is, inferred true by statistical models), the probability that the verdict delivered by the judge was accurate was 1 and greater than that for the verdict delivered by the jury (probability = .88 -.97) depending on the models. More remarkably, the probability of a wrong conviction by the judge (probability = .07) was higher than that of the jury (probability = .02). Those results suggested that wrong-conviction rates would decrease when the jury verdicts became binding rather than advisory.

The power and strength of this method suggest a methodology for inferring true verdicts that can otherwise never be known. The researchers utilised latent class analysis whereby a latent (unobserved) variable, such as a class or a category, is estimated and identified for each case while the analysis focuses on an observed variable. The true verdict was inferred by estimating the probability of each verdict option (guilty or not guilty), while taking into account the actual verdicts by judges and juries and strength of the case evidence.

In light of those results, some Korean studies have gone on to argue that the jury verdict should be binding, that is, be officially recognized as the sole and final verdict of the trial.[50] Indeed, the Korean Supreme Court has established a precedent for the jury verdict:

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[46] Dennis J. Devine et al, 'Jury Decision Making: 45 Years of Empirical Research on Deliberating Groups' (2001) 7(3) *Psychology, Public Policy, and Law* 622; Kuo-Chang Huang and Chang-Ching Lin, 'Mock Jury Trials in Taiwan-Paving the Ground for Introducing Lay Participation' (2014) 38(4) *Law and Human Behavior* 367; Robert J. MacCoun and Norbert L. Kerr, 'Asymmetric Influence in Mock Jury Deliberation: Jurors' Bias for Leniency' (1988) 54(1) *Journal of Personality and Social Psychology* 21; David Tait and Jane Goodman-Delahunty, 'The Effect of Deliberation on Jury Verdicts' in David Tait and Jane Goodman-Delahunty (eds), *Juries, Science and Popular Culture in the Age of Terror* (Palgrave Macmillan UK, 2017) 235.
[47] Kalven and Zeisel, above n 42.
[48] Eisenberg et al, above n 42.
[49] Kim et al, above n 44.
[50] Sang-Hoon Han, 'An Analysis and Suggestion of Binding Force of Jury Verdict in Korea' (2012) 24(3) *Korean Journal of Criminology* 9; Bong-Su Kim, 'A Critical Study on the Final Form of Peoples Participation Trial System' (2014) 26 *Journal of Criminal Law* 165.

> "If the jurors rendered a unanimous verdict of acquittal after their attendance to the whole trial processes, based on the trial evidence including witness evidence, and the judge's final verdict as her or his judgement was the same, then the verdict by the District Court should be preserved and not reversed by the High Court. The verdict by the District Court should be respected, unless new distinct evidence is provided to the extent to which High Court should initiate a new evidence hearing and subsequently finds the previous verdict inappropriate"[51].

This decision handed down by the Korean Supreme Court revealed the impact of empirical research evidence upon a relevant actual trial.

Another example of how the justice sector responded to research findings came from a committee in the Korean Justice Department that oversaw citizen participation in the justice system (hereafter cited as the Committee). In 2013, the Committee proposed an amendment to an act [Section 5 in Clause 46 in proposed Amendment of Act 11155 on Citizen Participation in Criminal Trials (hereafter cited as the Act) [52]] regarding jury trials. The proposed amendment read as follows: "The judge should respect Items 2 and 3 (the jury's verdict) when making a decision about the guilt of the defendant".[53] This proposed revision corresponded to the research findings by Kim et al.[54] Unfortunately though, seven months later this item was further amended to render the jury's verdict less binding than in the previous Act. More circumstances were added in which the judge was allowed to deliver a verdict different from the jury's.

Jury size

Originally, the Act (Items 1 and 2, Section 1 in Clause 13) stipulated that the number of jurors depended on the case type. Specifically, nine jurors composed juries for case trials involving maximum sentences of capital punishment or life imprisonment; seven jurors for trials involving lesser criminal offences, and five jurors for trials in which there was little

[51] The Supreme Court of the Republic of Korea, *Decision 2009Do14065*, 25 March 2010.
[52] The Gukmin-eui Hyongsa Jaepan Chamyeo-e Gwanhan Beobryul [Act on Citizen Participation in Criminal Trials], Act. No. 11155, Jan. 17, (2012).
[53] Section 5 in Clause 46 in proposed amendment of Act 11155 on Citizen Participation in Criminal Trials, (2013).
[54] Kim et al, above n 44.

ambiguity in the factual evidence. The rationale for this jury size categorisation scheme was to settle upon the most efficient jury sizes for the anticipated new jury system.[55] In that way, the final legislation of jury size in the coming amendment would aim to achieve the best reflection of public values in legal decision making, provided the jury rendered verdict in consistency and with representativeness of the community.

As it turned out, five-person juries rarely served; only 6.8% of the jury trials (N = 94) from 2008 to 2014 had five jurors. The average deliberation time was 1 hour 41 minutes, and the range was great: from 10 minutes to 5 hours 40 minutes. Deliberation time varied little across different types of offences. Although the 2015 report by the Court Office did not report on trial conditions, factors likely to have affected the duration of jury deliberation were complex and conflicting evidence, jury size, and other characteristics. The five-person juries spent an average of 1 hour 14 minutes in deliberation (with a maximum of 2 hours 40 minutes), which was similar to the average of 1 hour 30 minutes for seven- and nine-person juries. In 2013, the Committee proposed an amendment to use seven- and nine-person juries exclusively, thereby ending the use of five-person juries. This change of the jury size remains in the amendment proposal that has been announced for legislation in December in 2013.

The jury decision rule

The Act (Section 2 in Clause 46) prescribes the unanimity rule for jury decision-making, but if the jury fails to reach a unanimous consensus for a verdict, they can then decide under the majority rule, but only after consulting the judge. In the period from 2008 to 2014, in 68.5% (n = 1003) of the jury trials, the judge's final verdict was the same as the jury's unanimous verdict, whereas in 13.2% (n = 194) of the trials the judge's verdict was the same as the jury's majority verdict.

Previous Korean experimental evidence suggested that verdicts under the unanimity rule showed superior stability than those under the majority rule.[56] In addition, deliberations under the unanimity rule appeared to be more elaborate and rigorous, and jurors experienced greater satisfaction and had stronger confidence in their decision, compared with jurors deliberating under the majority rule. On the other hand, if the jury deliberating under the unanimity rule

[55] National Court Administration, 'Interpretation of "the Gukmin-eui Hyongsa Jaepan Chamyeo-e Gwanhan Beobryul [Act on Citizen Participation in Criminal Trials]" (2007).
[56] Lee and Park, above n 13.

failed to reach a verdict and became a hung jury, the socioeconomic costs were high and the system felt inefficient.[57]

Apparently, there have been case trials stymied by hung juries in which a majority rule would have brought a verdict.[58] To ensure that the justice system could avail itself of the benefits of both types of decision rules, the Act incorporated unanimity as the default rule, with majority rule after consultation with the judge as the expedient rule if the jury failed to reach a unanimous consensus.

Initially, the majority rule referred to in the Act was defined as the requirement that a simple majority would rule. That is, the opinion with more votes (e.g., five votes in a nine-person jury) would become the final verdict. Elsewhere (in England, for example), definitions of *majority* have undergone refinements to produce supermajority rules. Such decision rules set the criterion for a majority. Thus, a final verdict, a majority, may often be set at two votes out of three or five votes out of six.[59]

The simple majority rule initially embedded in the Act certainly expedited the delivery of a jury verdict, but at a cost. Jurors put less thought into their deliberations, gave lighter consideration to conflicting opinions, and made fewer attempts to persuade their peers.[60] Consequently, the Committee's amendment proposed a supermajority rule in 2013, with the criterion for a majority set at three jurors out of four. This provision for supermajority rule retained the requirement that the jury consult the judge when a unanimous consensus became impossible.

This amendment proposal for a supermajority decision rule has been criticised by Lee (2014),[61] who contends that the judge's opinion imposes on the independence of the jury in

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[57] Leo J. Flynn, 'Does Justice Fail When the Jury is Deadlocked' (1977) 61 *Judicature* 129; Barbara Luppi and Francesco Parisi, 'Jury Size and the Hung-jury Paradox' (2013) 42(2) *The Journal of Legal Studies* 399; William S. Neilson and Harold Winter, 'The Elimination of Hung Juries: Retrials and Non-unanimous Verdicts' (2005) 25(1) *International Review of Law and Economics* 1.

[58] Shari Seidman Diamond, Mary R. Rose, and Beth Murphy, 'Revisiting the Unanimity Requirement: The Behavior of the Non-unanimous Civil Jury' (2006) 100 *Northwestern University Law Review.* 201; Michael H. Glasser, 'Letting the Supermajority Rule: Non-unanimous Jury Verdicts in criminal trials' (1996) 27 *Florida State University Law Review* 659; Alice Guerra, Barbara Luppi, and Francesco Paris, 'Optimal Jury Design: Rethinking Standards of Proof, Jury Size and Voting Rules' (2017*)* <https://papers.ssrn.com/Sol3/papers.cfm?abstract_id=2973943>.

[59] Devine et al, above n 47; Guerra et al, above n 59.

[60] Devine et al, above n 47; Hans et al, above n 18; Lee and Park, above n 13.

[61] Jung-bae Lee, 'The Current Situation of Citizen Participation in Criminal Trial and Challenges for the Future' (2014) 26(4) *SungKyunKwan Law Review* 61.

its decision-making. Studies, moreover, have argued that the majority rule can diminish the democratic aspects of jury decision-making. Still other studies have complained that the rule contradicts the standard of beyond reasonable doubt for a conviction, because a minority opinion of not guilty goes unresolved.[62]

The most controversial element in the proposal, however, was that it allowed judges to render verdicts according to their own judgment whenever juries could not reach a supermajority decision. In effect, this decisional setup was tantamount to a jury system without jury involvement. Kim (2016) [63] argued that redeliberation by the jury would provide better justice, and it is prescribed by the Austrian Criminal Procedure Act Clause 332 Item 4. In this alternative, if redeliberation in order to render a verdict is necessary, the jury remains the decision-making engine of the system.

Amendment of the Act

Since the Korean jury trials were introduced in 2008, scholars of law and empirical sciences have continuously sought ways to strengthen the jury's impact on trial proceedings. The examples are proposals for supermajority rule for jury decision-making, the Committee's amendment proposal, and the final amendment recommendation by the Korean Justice Department.[64] There has been some criticism that the fundamental changes contained in the Act do not push the justice system far enough beyond its initial version. Moreover, the amendment proposals, which were announced for legislation in March, October, and December of 2013, have yet to go into effect. The ongoing research and the empirical work already incorporated into the amendment bills are clear and present forces for salutary change, but they alone are not enough even when enacted. If the Korean jury trial system is to mature properly and reach its full potential, it will require the proactive support and full commitment of the public and governing bodies.

Summary: Interactions between the empirical sciences and justice system to foster the new Korean system

We now review the journey shared by empirical researchers, scholars in law and psychology, and public policy makers who have collaborated to foster the Korean jury system; a

[62] Jae-Jung Kim, 'A Study on the Present Condition and Measures of Civil participation in Criminal Trials in Korea' (2016) *49 Chonbuk Law Review* 191.
[63] Ibid.
[64] See Lee, above n 61; Kim, above n 62.

profoundly complex undertaking. Globally, the journey began more than 100 years ago, when Münsterberg introduced experimental methods and research evidence to the American legal system. The journey continued when a number of Korean empirical scientists and legal reformists *scientifically* responded to the social pressure and desire for democratic reform in the justice sector since the 1990s, due to the public distrust and perceived unfairness in the judge trial system.[65]

In the early stages of the reform, the Korean Supreme Court conducted mock trials to weigh the merits of the conventional Anglo-American jury system and the Escabinado mixed-jury system of Europe[66] and to identify possible factors peculiar to Korean jurors. As described previously, the trial locations and the participants were carefully chosen to ensure the ecological or external validity of those field experiments, a typical target of criticism regarding mock trials.[67] Monitoring the trials were teams of experimental social psychologists and reformist justice professionals, including Supreme Court judges.

Content analysis techniques were applied to the deliberations of the three conventional juries and the two mixed juries in the mock trials. Those techniques quantified three key characteristics of jury deliberations: equality, richness, and evenness. In addition, the researchers developed descriptive indices by applying techniques from social network analysis, information entropy, and species diversity theories. The result of this massive research effort was the empirical research evidence supporting a jury system—one built along the lines of the Anglo-American system of conventional juries—was a feasible choice for the Korean system.

The experimental methods developed to compare the two types of jury proved to be not only innovative, both theoretically and practically, but also effective. Significantly, civic planners in other countries, for example, Taiwan, may find the experimental methods to be valuable tools for designing or reforming their own justice systems.[68]

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[65] Han and Park, above n 4; Hans, above n 6.
[66] Park and Lee, above n 21.
[67] Brian H. Bornstein, 'The Ecological Validity of Jury Simulations: Is the Jury Still Out?' (1999) 23(1) *Law and Human Behavior* 75; David L. Breu and Brian Brook, '"Mock" Mock Juries: A Field Experiment on the Ecological Validity of Jury Simulations' (2007) 21 *Law and Psychology Review* 77; Richard L. Wiener, Daniel A. Krauss, and Joel D. Lieberman, 'Mock Jury Research: Where Do We Go from Here?' (2011) 29(3) *Behavioral Sciences & The Law* 467.
[68] Huang and Lin, above n 47.

A fundamental concern about the installation of the new jury trial system was whether the average lay Korean had the temperament and wisdom to make grave and delicate legal decisions appropriately and fairly. This concern was predictable, since Korea had no historical or cultural precedent for such a system. To address this concern, researchers relied on the content analysis approach and trend analysis technique performed on juror deliberations in the mock trials.[69] They found that the unanimous verdicts from three mock juries indicated that minority jurors could assimilate the reasonable doubt standard into their deliberations, so that they could eventually join with the majority opinion regarding not-guilty verdicts. This was empirical evidence of jurors ability to perform rationally in group decision-making. Furthermore, it refuted arguments that Korean jurors would bend to social conformity rather than decide the verdict independently and rationally. Finally, Park[70] showed that juror accuracy, juror ability, and trial difficulty could be modelled empirically with psychometric precision.

Choice of another system design element—the jury decision rule—required more conventional laboratory experiments, following the methods and findings from the Korean Supreme Court mock trials. To meet the challenge, the researchers examined data from more than a hundred mock juries with more than a thousand mock jurors. In keeping with previous research regarding juries,[71] the researchers settled on the superiority of the unanimity rule over the majority rule.[72] Specifically, conditional probability theory showed that juries under the unanimity rule appeared to render more stable verdicts across mock juries. Specifically, multiple juries that served in the same mock trials were more likely to reach the same unanimous verdicts, whereas juries under a majority rule showed greater variability.

The use of the unanimity rule incurs the problem of the hung jury, which is both a curse and a blessing in a justice system. On one hand, of course, it is a costly waste of trial time and witness and lawyer energies due to the jury's failure to render a verdict. On the other hand, as the Korean mock jury data demonstrates, hung juries deliberated more systematically, and they more closely scrutinized the trial evidence. Even though the minority jurors in hung juries felt more pressure to conform to their majority fellows, their comprehension of the

[69] Park et al, above n 12.
[70] Park, above n 14.
[71] Devine et al, above n 36; Ethan J. Leib, 'A Comparison of Criminal Jury Decision Rules in Democratic Countries' (2007) 5 *Ohio State Journal of Criminal Law.* 629.
[72] Lee and Park, above n 13.

evidence was not inferior to the minority jurors in the juries that delivered verdicts. The conclusion drawn from this research evidence was that a hung jury reflected the complexity of the case. Consequently, a retrial was not a waste of resources but rather a continuation of the due process of a fair trial.[73]

The launch of the Korean jury system encountered some delay. The public required time to get use to the idea of the jury trial, there were general doubts about its feasibility in Korea, and political resistance arose among anti-reformists within the justice sector. Nevertheless, the use of empirical research, finely tailored to political, social, and legal realities, gave the proponents the knowledge and research evidence they needed to win public support.

Today, the Korean jury system is still in its infancy, with an amendment bill having been presented since 2013. The Korean Parliament has yet to either pass or reject the bill. But this much is already certain: the collaboration of empirical scientists, social scholars, and political leaders has enabled Korea to achieve a magnificent goal, namely, a more democratic system of justice. For the first time, citizens have a role in an institution that preserves justice in their society. They have become participating stakeholders in the society that sustained them.

Justice and the jury systems around the world: The search for best evidence-based practice

Nolan & Goodman-Delahunty[74] characterized the Australian criminal jury trial as an endangered species, with less than 1% proportion in the criminal cases, and further declared that civil jury trials were also on the verge of extinction. Nonetheless, presuming that juries provide social benefits, they called for further research on jury deliberation, not only at the level of the individual juror but also at the jury level. This call was to understand and improve jury dynamics and the legal decision processes. Such research would align precisely with the capabilities of the empirical methodologies developed for the new Korean system. For example, the use of mock juries or shadow juries in real trials would identify factors influencing verdicts; deliberation characteristics such as equality, richness, and evenness of jurors' interventions; and social the influences and cognitive group processes among minority

[73] Valerie P. Hans et al, 'The Hung Jury: The American Jury's Insights and Contemporary Understanding' (2003) 39(1) *Criminal Law Bulletin*33; Jessica M. Salerno and Shari Seidman Diamond, 'The Promise of a Cognitive Perspective on Jury Deliberation' (2010) 17(2) *Psychonomic Bulletin & Review* 174.
[74] Mark Nolan and Jane Goodman-Delahunty. *Legal Psychology in Australia* (Thomson Reuters, 2015).

and majority jurors. As further example, Lee et al. (2012)[75] analysed data from18 shadow juries and 16 research juries for a total of 20 criminal trials in Korea in the first half of 2012. The research methods adopted the information entropy analysis developed by Park & Lee (2006)[76] and illustrate an application of the methodologies reviewed in the present note.

Recently, Horan & Israel (2016)[77] stated that research with real juries should be harnessed to strengthen the Australian jury system. This suggestion was somewhat daring because, under the secrecy law, jurors are banned from sharing any experience or information regarding trial and deliberation processes they experience.[78] Yet, there is much to learn about justice reform within the Australian legal system, including the benefits or drawbacks of timely and legitimate calls for evidence and the banning of hearsay. Here again, the research methods and collaborative approach of the Korean experience would have productive applications.[79]

Globally, mixed juries and tribunals are often advocated,[80] especially during the revival or introduction of jury systems in certain countries, including Russia, Mexico, Japan, and Taiwan. [81] Because of the high regard for juries worldwide and the scrutiny they have received both in the professional discourses and in the press and fiction, the global norm seems to be the participation of lay citizens in the decision-making.[82]

Even so, juries come in a variety of forms and sizes. For legal scholars and social psychologists, this miscellany of jury types throughout the world represents a bonanza of field research opportunities for the study of jury behaviours and dynamics.[83] The possibilities for methodological innovation and collaborative research in law and the psychology of the

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[75] Jaehyup Lee et al, *Exploring of improvement in jury deliberation with a shadow jury method.* (The Korean Court Administration, Seoul, 2012).
[76] Park & Lee, above n 21.
[77] Jacqueline Horan and Mark Israel, 'Beyond the Legal Barriers: Institutional Gatekeeping and Real Jury Research' (2016) 49(3) *Australian & New Zealand Journal of Criminology* 422.
[78] Jane Goodman-Delahunty and David Tait, 'Lay Participation in Legal Decision Making in Australia and New Zealand: Jury Trials and Administrative Tribunals' in Martin F. Kaplan and Ana M. Martín (eds), *Understanding World Jury Systems Psychological Research* (Psychology Press, 2006) 47.
[79] Tait and Goodman-Delahunty, above n 37.
[80] Sanja Kutnjak Ivkovic, 'Exploring Lay Participation in Legal Decision-making: Lessons from Mixed Tribunals' (2007) 40 *Cornell International Law Journal* 429.
[81] Valerie P. Hans, 'Introduction: Citizens as Legal Decision Makers: an International Perspective' (2007) 40 *Cornell International Law Journal*; Valerie P. Hans, 'Jury Systems around the World' (2008) 4 *Annual Review of Law and Social Science* 275; Richard O. Lempert, 'The Internationalization of Lay Legal Decision-making: Jury Resurgence and Jury Research' (2007) 40 *Cornell International Law Journal* 477; Nancy S. Marder and Valerie P. Hans, 'Introduction to Juries and Lay Participation: American Perspectives and Global Trends' (2015) 90(3) *Chicago-Kent Law Review* 789, Naka et al, above n2; Ryan Y. Park, 'The Globalizing Jury Trial: Lessons and Insights from Korea' (2010) 58(3) *The American Journal of Comparative Law* 525.
[82] Marder and Hans, ibid.
[83] Hans, above n 6.

courtroom are inexhaustible. Expected is that the techniques and the interdisciplinary approaches we have described here will shed a light on the way to discoveries for many years to come.

Conclusion

The jury, one of the most complex of human decision-making systems, has provoked enormous amounts of empirical research. At the macro level, the jury exemplifies our yearnings for democracy and even nullifies the law, if necessary. At the micro level, however, research brings empirical evidence, for instance, regarding illusions and bias in human vision, perception, and memory into courtrooms and jury rooms. In this era, human intelligence strives with the easy and hard problems of consciousness in the advance of quantum mechanics and free will is being examined at the neuronal level in the brain. Borders between disciplines are no longer clear and therefore we may predict law and psychology research will advance the jury system by application of scientific research methods drawn from many disciplines, and by utilising partnerships between actors able to synthesise normative study and empirical approaches. In this global context, the Korean jury system and the empirical evidence surrounding its birth and development may stimulate scientific interactions between practice and research efforts across the jurisdictions on the globe.