DELIBERATING THE FEASIBILITY OF RISK ASSESSMENT TOOLS IN INDIA: THE DOUBLE-EDGED SWORD

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ABSTRACT

Death penalty, by virtue of its irreversible nature, is an issue of continuous debate in contemporary times. In India, as a result of the arbitrary exercise of the judicial discretion and the apparent failure of the 'rarest of rare' doctrine, the demand for the abolition of death penalty is on the rise. In a bid to deal with the arbitrariness in the award of death penalty, Justice Kurian Joseph in his partial dissent in Chhannu Lal Verma v State of Chhattisgarh has underlined the need for psychological or psychiatric evaluation of the convict before awarding him death penalty in order to objectively determine the impossibility of his reform (which forms one of the primary grounds for the award under the 'rarest of rare' doctrine). The two principal methods of psychological or psychiatric evaluation of the offender for the purpose of sentencing are clinical assessment and statistics-based assessment. In the first instance, the objective evaluation, using risk assessment tools, seems to be the panacea of all that is wrong with the award of death penalty in India. However, the authors analyse how it is a double-edged sword that could lead to a failure of justice in certain cases. In the article, the authors have dealt with the clinical assessment and the statistics-based assessment (also known as actuarial risk assessment). Further, the potential threat to justice dispensation that can arise in the use of risk assessment tools by referring to its widespread and continuous use in the United States of America has been deliberated upon. Lastly, it has been concluded that risk assessment tools could be the answer to the lack of scientific data on the convict if the existing gaps are plugged. Taking a cue from the American experience, the authors have tried to suggest certain recommendations for the effective implementation of risk assessment tools in India.

Keywords: Death Penalty, Risk Assessment Tools, Objective Decision-making, Statistics-Based Assessment, Arbitrariness.

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INTRODUCTION

"Good decisions come from experience. Experience comes from bad decisions."

- Mark Twain

The movement for the abolition of death penalty has permeated almost every legal system including that of India. Although the Supreme Court of India had upheld the constitutionality of the death penalty far back in the year 1980,¹ but considering the arbitrary exercise of the judicial discretion in sentencing in the absence of a settled framework,² the demand for the abolition of death penalty in India is again on the rise.³ This can be gauged from the partial dissent of Kurian, J in *Chhannu Lal Verma v State of Chhattisgarh*⁴ in which he suggested that the time has come to reconsider *Bachan Singh*.

The authors in the present article are not deliberating the abolition of death penalty or its utility in the justice dispensation mechanism, instead the endeavour is to highlight and discuss the suggestion of Kurian, J in *Channu Lal Verma v State of Chhattisgarh*, which was eclipsed by the emphasis upon the reconsideration of *Bachan Singh*. Considering the irreversible nature of the death penalty, Kurian, J observed, "*without proper psychological or psychiatric evaluation, it is not proper to hold that the person is impossible to reform (and therefore be awarded death penalty*)."⁵ In other words, he emphasised upon providing objective scientific backing to the awards of death sentence, and consequently, reducing the subjectivity in the sentencing.

At the first instance, the above-mentioned suggestion seems to be the panacea for all that is wrong with the award of death penalty in India, particularly the issue of subjectivity and

³ Manoj Mitta, 'Justice A P Shah: India Should Join Nations Abolishing the Death Sentence' (*The Times of India*, 29 August 2012) https://timesofindia.indiatimes.com/interviews/Justice-A-P-Shah-India-should-join-nations-abolishing-the-death-sentence/articleshow/15906225.cms> accessed 8 September 2019; Avi Singh and others, 'Is it Time to Abolish the Death Penalty?' (*The Hindu*, 14 December 2018) https://thehindu.com/opinion/op-ed/is-it-time-to-abolish-the-death-penalty/article25735508.ece> accessed 8 September 2019; Shemin Joy, 'Tharoor Moves Private Bill to Abolish Death Penalty' (*Deccan Herald*, 11 August 2018) https://deccanherald.com/national/death-penalty-abberation-686913.html> accessed 8 September 2019.

¹ Bachan Singh v State of Punjab AIR 1980 SC 898.

² Swami Shraddhanand v State of Karnataka AIR 2008 SC 3040; Santosh Kumar Bariyar v State of Maharashtra (2009) 6 SCC 498; Dhananjay Chatterjea v State of West Bengal (1994) 2 SCC 220.

⁴ *Chhannu Lal Verma v State of Chhattisgarh* 2018 SCC Online SC 2570.

⁵ ibid.

arbitrariness. However, the feasibility of 'objective scientific backing' needs to be deliberated upon and the same forms the focus of the discussion in the present article.

THE PSYCHOLOGICAL OR PSYCHIATRIC EVALUATION

The aforementioned psychological or psychiatric evaluation can be carried out either by clinical evaluation or statistics-based evaluation. A clinical evaluation is the evaluation of a person's condition and prognosis based on information gathered from physical and laboratory examination, and a person's history.⁶ In other words, the clinical evaluation is based on an individual's examination and the result is an outcome of the subjective decision of the examiner, which in turn, is dependent upon the examiner's knowledge and personal experience among other things.

On the other hand, the statistics-based evaluation is grounded upon a definite set of standards that are framed based on collective data related to the subject under evaluation. Thus, the result of a statistics-based evaluation is not entirely dependent on an individual's decision since the result is shaped by a definite set of standards.

To decide as to the applicable method of evaluation in India, the object of such evaluation shall be taken into consideration. The suggestion of the psychological or psychiatric evaluation has been made to combat the subjectivity and the arbitrariness of the death sentence awards in India. Therefore, the first and foremost consideration shall be the objectivity of the procedure adopted. After comparing clinical evaluation and statistics-based evaluation, it can be safely inferred that statistics-based evaluation is comparatively objective in nature, as the variables of knowledge, experience, biases, etc. of the examiner are not as prominent as in the case of clinical evaluation.⁷ Thus, clinical evaluation is out of the race and the only feasible option that remains is statistics-based evaluation. In the subsequent parts of the article, the authors will discuss the feasibility of statistics-based evaluation for sentencing, i.e., risk assessment tools.

⁶ 'Understanding Psychological Testing and Assessment' (*American Psychological Association*) <<u>https://apa.org/helpcenter/assessment></u> accessed 6 December 2019.

⁷ 'Reliability and Validity of Assessment Methods' (*Encyclopaedia Britannica*)

https://britannica.com/science/personality-assessment/Reliability-and-validity-of-assessment-methods> accessed 6 December 2019.

RISK ASSESSMENT TOOLS

The development and increased use of risk assessment tools have been described as the shift of the criminal justice system towards evidence-based sentencing, aimed at improving sentencing decisions by incorporating scientific and quantitative methods.⁸ The central feature of the evidence-based sentencing is the use of statistical data for the purpose of deciding the sentence rather than being dependent upon judicial discretion.⁹ The usage of statistics-based evaluation in sentencing has been widespread in the USA for the past few decades. Statistics-based evaluation is brought to reality through psychological tools known as 'risk assessment tools'.

Risk assessment tools are algorithms that use socioeconomic status, family background, neighbourhood crime, employment status and other factors to reach a supposed prediction of an individual's future risk, either on a scale from low to high or with a specific percentage.¹⁰ Alternatively, these tools can be understood as questionnaires, which are typically filled by prison staff, probation officers or psychologists, and assign marks to the person under examination on various factors based on the statistical probabilities derived from the behaviour of previous offenders.¹¹

The three overarching questions to be considered by any risk assessment tool are:

- 1. What offender characteristics are connected with recidivism?
- 2. How are the individual and offence characteristics associated with the timing of re-arrest?

3. Can offenders be grouped according to the combination of risk factors to predict recidivism?¹²

⁸ Danielle Kehl, Priscilla Guo and Samuel Kessler, 'Algorithms in the Criminal Justice System: Assessing the Use of Risk Assessment in Sentencing' (Berkman Klein Centre for Internet & Society, Harvard Law School 2017) 7. ⁹ ibid.

¹⁰ Nathan James, 'Risk and Needs Assessment in the Federal Prison System' (Congressional Research Service 2018) <https://fas.org/sgp/crs/misc/R44087.pdf> accessed 6 December 2019.

¹¹ Anna Maria and others, 'The New Science of Sentencing' (*The Marshall Project*, 8 April 2015)

<www.themarshallproject.org/2015/08/04/the-new-science-of-sentencing> accessed 30 August 2019.
¹² Matthew DeMichele and Julia Laskorunsky, 'Sentencing Risk Assessment: A Follow-up Study of the Occurrence and Timing of Re-arrest among Serious Offenders in Pennsylvania' (Pennsylvania Commission on Sentencing 2014) 8.

Risk assessment tools can be state-sponsored, for instance, a tool developed by the Virginia Criminal Sentencing Commission used in Virginia, or commercial, for instance, Level of Service Inventory (Revised) used in Washington and California, or Correctional Offender Management Profiling for Alternative Sanctions (*hereinafter* COMPAS) used in Florida and Michigan.

FEASIBILITY OF USING RISK ASSESSMENT TOOLS IN SENTENCING: THE UNDERLYING FAULTLINES

In this section, the authors will deal with various issues generally associated with the use of statistics-based risk assessment, particularly, risk assessment tools.

POTENTIAL FOR BIAS

In the Indian legal system, judicial discretion plays a significant role in awarding death penalty to convicts owing to the invocation of 'rarest of rare' doctrine which does not provide any guidelines or formula to decide which case would be considered rarest of rare. In such a scenario, the personal bias of the judge is bound to be a major consideration. This is clearly reflected in the form of socio-economic bias in the award of a death penalty, which is empirically evident in various studies on the subject including the Death Penalty India Report which found that 74.10% of death row prisoners in India are economically vulnerable.¹³ In *Mohd Farooq Abdul Gafur v State of Maharashtra*,¹⁴ the court had noted that leading commentators on the death penalty hold the view that it is invariably the marginalised and destitute who suffer the maximum penalty. Moreover, the Law Commission of India in its 262nd report had stated that the persons who cannot afford legal representation and are awarded death penalty by the trial courts are more probable to get their death penalty confirmed by the higher court.¹⁵ These studies and observations when taken together show, that while there may be other factors at play, the personal bias of judges is definitely one of them.

The lack of caste diversity in Indian judiciary further intensifies the problem since it gives more scope for the bias against the lower caste and the economically weaker sections of the society.

¹³ Project 39A, *Death Penalty India Report* (National Law University Delhi, 2016) 104.

¹⁴ Mohd Farooq Abdul Gafur v State of Maharashtra (2010) 14 SCC 641.

¹⁵ Law Commission of India, *The Death Penalty* (Report Number 262, 2015).

Studies have reported that in the Indian judiciary, there are only 12% OBC judges.¹⁶ Also, no SC or ST Judge has been elevated to the Supreme Court of India in the past 7 years.¹⁷ Consequently, the underlined requirement in any alternative adopted for resolving the issues in death penalty awards is the potential to avoid any kind of bias since further reinforcing the existing bias in the criminal legal system will not be appropriate.

The adoption of risk assessment tools is being portrayed as a means to reduce the subjectivity in the award of the death sentence and consequently reducing the influence of the personal attitude and bias of the judge. However, in 2016, a US-based non-profit investigative newsroom, ProPublica, released a study on the most popular and most widely used risk assessment tool in the USA, Correctional Offender Management Profiling for Alternative Sanctions (hereinafter 'COMPAS'). The study revealed the tool to be racially biased¹⁸ in the sense that it is more likely to flag black defendants as future criminals, labelling them as such at twice the rate as white defendants.¹⁹ It was found that black defendants who did not recidivate were incorrectly predicted to re-offend at a rate of 44.90% which is nearly twice as high as their white counterparts at 23.50%, and white defendants who did recidivate were incorrectly predicted to not re-offend at a rate of 47.70% which is nearly twice as high as their black counterparts at 28%.²⁰

Although the developers of COMPAS refuted the findings of ProPublica, Northpointe, such studies do reflect the apprehensions of the legal fraternity as to the biased nature of risk assessment tools. These apprehensions can also be traced from the noting of the US Department of Justice in 2014 that the experience and analysis of the current risk assessment tools

¹⁶ Pradeep Thakur, 'Data: OBCs Just 12% of Lower Court Judges' (*The Times of India*, 29 January 2018) https://timesofindia.indiatimes.com/india/data-obcs-just-12-of-lower-court-judges/articleshow/62687268.cms accessed 29 August 2019.

¹⁷ 'Judiciary Remains a Major Brahmin Bastion, No SC/ST Judge has been Elevated to Apex Court in 7 Years' (*Legally India*, 24 January 2018) <www.legallyindia.com/supreme-court/judiciary-remains-a-major-brahmin-bastion-no-sc-st-judge-has-been-elevated-to-apex-court-in-7-years-20180124-9045> accessed 29 August 2019.

¹⁸ Julia Angwin and others, 'Machine Bias: There's Software Used across the Country to Predict Future Criminals. and it is Biased Against Blacks' (*ProPublica*, 23 May 2016) <www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing> accessed 2 September 2019.

¹⁹ 'Algorithms in the Criminal Justice System: Pre-Trial Risk Assessment Tools' (*epic.org*)

https://epic.org/algorithmic-transparency/crim-justice/ accessed 5 September 2019 ("Algorithms").

²⁰ J Dressel and H Farid, 'The Accuracy, Fairness and Limits of Predicting Recidivism' (*NCBI*, 17 January 2018) <www.ncbi.nlm.nih.gov/pubmed/29376122> accessed 5 September 2019.

demonstrate that utilising such tools for determining prison sentence will have an adverse impact on the poor communities already struggling with numerous social evils.²¹

The bias resulting from risk assessment tools is an outcome of various risk factors used by them, which have an indirect relationship with the socio-economic status of the person under examination²² such as demographic variables, family background, education, employment etc. For instance, one such variable being used in the USA is previous arrest (not conviction). Due to historic policing pattern, predominantly poor and minority neighbourhoods tend to face a disproportionate amount of police activity with respect to 'found' crimes (crimes such as rash driving or small quantities of drugs, which are not reported but found by the police). Therefore, the data sets concerning found crimes are likely to be biased to suggest that poor and minority communities commit a higher proportion of these crimes than they actually do.²³

Similar to the blacks in the USA, in India, the economically and socially backward classes lack in areas such as education and employment. According to the 2011 census, the national average literacy rate was 74.04%, whereas the literacy rate for SC's was 66.10%,²⁴ and that for ST's was 58.96%.²⁵ Similarly, for rural areas, the literacy rate was 62.60%, whereas, for urban areas, it was 82.80%.²⁶ If we consider economic status, the national percentage for the population below the poverty line was 13.70% but in the case of SC's it was 21.70% and for OBC's it was 15.40%.²⁷ It is evident that if any assessment takes into consideration the education, family background, employment or any other socio-economic parameter to determine the probability of

²¹ Letter from Jonathan J Wroblewski, Director, Office of Policy and Legislation, US Department of Justice's Criminal Division to the Honorable Patti B Saris, Chair, US Sentencing Commission (29 July 2014)

<www.justice.gov/sites/default/files/criminal/legacy/2014/08/01/2014annual-letter-final-072814.pdf> accessed 7 September 2019.

²² Algorithms (n 19).

²³ Cathy O' Neil, Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy (1st edn, New York: Crown Publishers 2016) 26.

 ²⁴ 'Literacy Rates in Scheduled Caste Population and Total Population in India Between 1961 and 2011' (*Statista*, 23 September 2019) <www.statista.com/statistics/702170/scheduled-caste-literacy-rate-india/> accessed 6 December 2019.

²⁵ Ministry of Statistics and Programme Implementation, 'Women Men in India' (Ministry of Statistics and Programme Implementation 2014) ch 3

<www.mospi.gov.in/sites/default/files/reports_and_publication/statistical_publication/social_statistics/Chapter_3.pd f> accessed 6 December 2019.

²⁶ ibid.

²⁷ Ministry of Social Justice & Empowerment, 'Handbook on Social Welfare Statistics' (Ministry of Social Justice & Empowerment 2016)

<http://socialjustice.nic.in/writereaddata/UploadFile/HANDBOOK%20Social%20Welfare%20Statistice%202016.p df> accessed 6 December 2019.

reoffending, it is likely to rate the SC's, ST's and OBC's at higher risk of reoffending as their education and employment levels are far below the national average. In a risk assessment tool, the more uneducated and backward a person is, the more is the chance of reoffending. Therefore, if the risk assessment tools used in the USA are adopted in India in their existing form, they will further reinforce the existing socio-economic bias of the Indian legal system.

CONFLICT OF THEORIES

The application of risk assessment tools, in other words, the process of punishing people for not only what they have done but also what they can do in the future, is grounded upon the theory of utilitarianism. Utilitarianism promotes actions that maximise happiness and well-being for the majority of the population, i.e., the greatest good for the greatest numbers. It is a form of consequentialism, the proponents of which believe that the right action is understood entirely in terms of consequences produced or, in other words, the end justifies the means.²⁸ This theory forms the basis of risk assessment by providing that pain to some people may be given to ensure the pleasure of maximum population. Thus, it gives the justification for awarding to some people the sentence more than prescribed for the offence that they have already committed, so that the society as a whole can remain secure.

The usage of risk assessment tools is in conflict with the retributive theory of punishment, according to which, the offenders should get their just desserts,²⁹ and they should be punished in accordance with what they have done.

Whereas, as stated earlier, in the actuarial risk assessment, the offender is punished not only for what he has done but also for what he may do in future. Due to the stark difference in the fundamental principle of the two theories, they are constantly at loggerheads with each other.

Therefore, prior to the adoption of risk assessment tools, a way to integrate both of the theories in the sentencing process should be found as many legal scholars have suggested that the theory of punishment shall constitute both, retributive/deterrent as well as utilitarian theory.³⁰

²⁸ Julia Driver, 'The History of Utilitarianism' (*Stanford Encyclopedia of Philosophy*, 22 September 2014) https://plato.stanford.edu/entries/utilitarianism-history/> accessed 8 September 2019.

²⁹ Kehl (n 8) 4; John Monahan and Jennifer L Skeem, 'Risk Assessment in Criminal Sentencing' (2016) 12 Annual Review of Clinical Psychology 489, 502.

FLAWED PRESUMPTION OF PREDICTABILITY

The use of risk assessment tools in sentencing is grounded upon the presumed possibility of prediction of future criminal behaviour of an individual from his past behaviour supplemented with various other factors such as demographic factors. The said presumption, however, can neither be verified by the empirical data nor justified on a jurisprudential basis.

A study by the RAND Corporation, an American non-profit global policy think tank, in the year 1982, revealed that although the accuracy of risk assessment tools is quite satisfactory, being 76% in the case of low-risk offenders, the accuracy in the case of high-risk offenders is poor at 50%.³¹ On the other hand, the thesis by Hart and his colleagues provided that the margin of error surrounding the individual risk assessment of violence is so wide as to make such predictions virtually meaningless.³²

In addition, the use of group data in predicting the individual's behaviour and the consequent statistical generalisation has been criticised by various scholars as being unable to provide results accurate enough to provide actionable information.³³ Sonja Starr, a University of Michigan law professor, observes that these instruments are not about getting judges to analyse life circumstances of the defendant and their particular risk individually. It is entirely based upon statistical generalisation.³⁴ Such generalisation could be the end of the road for an individual.

Lastly, the method of quantifying the characteristics of an individual, which are qualitative in nature, is again an arena full of disputes and debates.

³⁰ Richard S Frase, 'Limiting Retributivism: The Consensus Model of Criminal Punishment' (2003) University of Minnesota Law School Public Law and Legal Theory Research Paper Series Research Paper No 03-7 accessed 8 September 2019;">https://papers.ssrn.com/sol3/papers.cfm?abstract_id=420324&download=yes>accessed 8 September 2019;

Matthew Haist, 'Deterrence in a Sea of "Just Desserts": Are Utilitarian Goals Achievable in a World of "Limiting Retributivism?' (2009) 99(3) Journal of Criminal Law and Criminology 789.

³¹ Stephen D Gottfredson and Don M Gottfredson, 'Selective Incapacitation?' (1985) 478 The Annals of the American Academy of Political and Social Science 135, 140.

³² SD Hart, C Michie and DJ Cooke, 'Precision of Actuarial Risk Assessment Instruments: Evaluating the 'Margins of Error' of Group v Individual Predictions of Violence' (2007) The British Journal of Psychiatry.

³³ Steven L Chanenson and Jordan M Hyatt, 'The Use of Risk Assessment at Sentencing: Implications for Research and Policy' (2016) Villanova University School of Law 6.

³⁴ Sonja B Starr, 'Sentencing, by the Numbers' (*The New York Times*, 10 August 2014)

<www.nytimes.com/2014/08/11/opinion/sentencing-by-the-numbers.html> accessed 10 September 2019.

LACK OF TRAINED STAFF

The administration of risk assessment tools requires a basic understanding of psychology and psychiatry. Consequently, the training of the concerned staff, i.e., the staff preparing the presentence report based on risk assessment tools as well as the judge who takes such report into consideration for the purpose of sentencing is a necessary precondition for the purpose of maintaining the accuracy of the risk assessment and its proper administration.³⁵

In India, where the number of properly trained psychologists is minimal (the state with the highest ratio of psychiatrists, Kerala, has the ratio of 0.6 psychiatrists per 1 lakh population)³⁶ and where the training of judges and prison staff in basic psychology and psychiatry is still a far cry, a worse scenario than that of the USA is not difficult to imagine. In other words, due to the deficiency of properly trained staff, the accuracy of the results will even be lower than the USA, making the case worse.

ISSUE OF THE VIOLATION OF FUNDAMENTAL RIGHTS

In 2016, the Supreme Court of Wisconsin considered the issue of the legality of the use of risk assessment tools in sentencing.³⁷ The petitioner in the case had been examined by a risk assessment tool, namely COMPAS, for sentencing. The petitioner challenged the constitutionality of risk assessment tools in sentencing on the following three grounds:³⁸

1. The proprietary nature of risk assessment tools (particularly COMPAS) prevents the defendant from assessing the accuracy of the score awarded by risk assessment tools, thereby violating his right to be sentenced based on accurate information.³⁹

2. The use of risk assessment tools violates the right to an individualised sentence as it relies on group data rather than individual's characteristics to make inferences about an individual's future criminal behaviour.⁴⁰

³⁵ Chanenson (n 33) 10.

³⁶ G Gururaj and others, *National Mental Health Survey of India, 2015-16: Prevalence, Pattern and Outcomes* (NIMHANS Publication No 129, National Institute of Mental Health and Neuro Sciences 2016) 44, 45 http://indianmhs.nimhans.ac.in/Docs/Summary.pdf> accessed 6 December 2019.

³⁷ Loomis v Wisconsin (2016) Wis 881 NW2d 749.

³⁸ ibid.

³⁹ ibid.

⁴⁰ ibid.

Risk assessment tools, particularly COMPAS, use gender in calculating the score.⁴¹ In 3. support of his claim, the petitioner cited the decision in Craig v Boren,⁴² where the Supreme Court held that an Oklahoma law that treated men and women differently was unconstitutional even though it was based on empirical data, which supported such discrimination.

The Supreme Court of Wisconsin answered the abovementioned contentions in the following manner:

1. On the issue of verifying the accuracy of the result of risk assessment tool, the Court acknowledged that the proprietary nature of various risk assessment tools prevent the defendant from challenging the accuracy of the score of risk assessment tools but since most of the information used by the tool is obtained through a questionnaire filled by the defendant himself and from public records, it can be said that the defendant had an opportunity of ensuring the accuracy of the score.⁴³

2. On the question of the individualised sentence, the Court held that the result of risk assessment tools is only one of the factors used for sentencing and is not a decisive factor.⁴⁴

3. As far as the question of the use of gender as a characteristic for the purpose of examination goes, the Court held that the petitioner has not been able to establish that gender has been used by the Court for the purpose of sentencing especially since the judge has not mentioned it as one of the grounds to explain his rationale.⁴⁵

In the case, although the Court had upheld the validity of the use of risk assessment tools in sentencing, at the same time it had expressed its apprehension of the future use of risk assessment tools in the absence of any settled guidelines. The Court limited the scope of the use of risk assessment tools in sentencing by holding that, "although the judge can use it for the purpose of making an informed decision, it shall not be used as a decisive factor to decide the length or severity of punishment."⁴⁶

⁴¹ ibid.

⁴² Craig v Boren (1976) 429 US 190. ⁴³ Loomis (n 37).

⁴⁴ ibid.

⁴⁵ ibid.

⁴⁶ ibid.

After the judgment, the petitioner appealed to the US Supreme Court, which declined to hear his case in June 2017.⁴⁷

The scholars have raised multiple objections with respect to the arguments of the petitioner as well as the reasoning of the Court in upholding the constitutionality of the use of risk assessment tools in sentencing. Firstly, the petitioner did not challenge one of the most controversial and criticised aspects of risk assessment tools, the consideration taking into account socio-economic factors. Although the petitioner challenged the use of gender as a consideration, he did not formulate the challenge as the violation of the right to equal protection of the law, as described by scholars in various studies.⁴⁸

Secondly, how is a judge expected to use the result of risk assessment tools if he is not supposed to decide the length or severity of the punishment based on it?⁴⁹ The court also failed to establish as to why the report should even be considered by the Court at the first instance if it is not an important decisive factor for the purpose of sentencing.⁵⁰

As a result of the flaws in the petitioner's case as well as the reasoning of the court, the issue of the conflict between fundamental rights and the use of risk assessment tools in sentencing cannot be considered as settled.⁵¹

In the Indian perspective, the judiciary accords a great sanctity to the fundamental rights of the citizens. The use of risk assessment tools in the present state will violate a person's right to life under Article 21 of the Constitution. Article 21 provides that no person shall be deprived of his life or personal liberty except by a process established by law. In *Maneka Gandhi v Union of India*,⁵² 'process established by law' has been interpreted to mean just, fair and reasonable

⁴⁷ Michelle Liu, 'Supreme Court Passes on Crime Assessment Case' (*Milwaukee Journal Sentinel*, 26 June 2017) </br><www.jsonline.com/story/news/crime/2017/06/26/supreme-court-refuses-hear-wisconsin-predictive-crime-assessment-case/428240001/> accessed 10 September 2019.

⁴⁸ Sonja B Starr, 'Evidence-Based Sentencing and the Scientific Rationalization of Discrimination' (2014) 66(4) Stanford Law Review 803, 821. ⁴⁹ Kohl (n 8) 21

⁴⁹ Kehl (n 8) 21.

⁵⁰ 'State v Loomis: Wisconsin Supreme Court Requires Warning Before Use of Algorithmic Risk Assessment in Sentencing' (2017) 130 Harvard Law Review 1530.

⁵¹ John Villasenor and Virginia Foggo, 'Algorithms and Sentencing: What Does Due Process Require?' (*Brookings*, 21 March 2019) <www.brookings.edu/blog/techtank/2019/03/21/algorithms-and-sentencing-what-does-due-process-require/> accessed 11 September 2019.

⁵² Maneka Gandhi v Union of India 1978 SCR (2) 621.

process or the 'due process of law'. Since there is no transparency with respect to the accuracy and the impartiality of the risk assessment method, they can be challenged on the ground of not being just, fair and reasonable. Secondly, it could be challenged for being violative of the right to equality under Article 14 as risk assessment tools are inherently biased towards the socioeconomic backwards (as already discussed), thereby violating the 'equal protection of law' clause of the Article 14 of the Constitution.

Thus, risk assessment tools, if introduced in the Indian legal system, will face tough scrutiny for the potential violation of fundamental rights enshrined in the Indian Constitution.

ISSUE OF OPACITY

One of the major contentions in the *Loomis* case was with respect to the opacity of risk assessment tools, which disentitle the person examined from assessing the accuracy of the result of risk assessment tools or to bring a challenge against them. The practice is to provide the person examined with the general final score but the information as to various inputs and the weight accorded to each one of them is not provided either to the person examined or to the general public. This opacity makes it impossible for the researchers to study the accuracy and appropriateness of risk assessment tools as well as to bring legal challenges against them.⁵³ The complicating factor with respect to the transparency of risk assessment tools.⁵⁴ Owing to the trade secret rights, the developers of risk assessment tools cannot be obligated to disclose the method employed in the working of risk assessment tools. As a result, the methodology of risk assessment tools remains confidential and even the accused remains unaware of it.

Although India does not have any specific legislation for trade secrets, the Indian courts have granted protection to trade secrets of the companies based on the principle of equity. Therefore, the deadlock between the issue of transparency and trade secret rights of the developers of risk assessment tools is required to be resolved before the adoption of risk assessment tools in India.

⁵³ Kehl (n 8) 28.

⁵⁴ Villasenor (n 51).

ABSENCE OF VALIDATION STUDIES

One of the dangerous lacunae in the working of risk assessment tools in the USA is, the absence of validation studies to verify their accuracy. In the USA, out of 49 states, only 10 have conducted any kind of validation study.⁵⁵ Gottfredson and Moriarty (2006) observed that the fundamental requirements for developing, cross-validating and applying risk assessment tools are 'routinely ignored or violated.'⁵⁶ These requirements are vital since unless a tool is validated in a local system, and then periodically revalidated, there is little assurance that it works.⁵⁷

LIMITED ACCURACY

One of the major concerns with the use of risk assessment tools is the issue of accuracy. Various studies on the subject have suggested that risk assessment tools can predict only with moderate accuracy and no risk assessment tool is superior to others.⁵⁸ The explanation provided by the scholars is based on the natural limit of the predictive utility of instruments.⁵⁹

HOW TO IDENTIFY RISK FACTORS TO BE TAKEN TO BE TAKEN INTO **CONSIDERATION?**

As mentioned earlier, the use of risk assessment tools involves the conversion of qualitative entities into quantitative ones. This process of conversion is itself lacking any guarantee for accuracy. One of the most debatable subjects is the decision as to which all factors shall be considered as risk factors. The fundamental theory, which is generally applied, is the consideration of the effect of the factor over the blameworthiness and the sentence of the offender.⁶⁰ This theory works perfectly in cases where the factor affects both of the things in the same manner, i.e., either positively or negatively. Factors such as the severity of crime affect both the blameworthiness and the sentence as an aggravating factor. The problem arises where the factor affects the sentence and the blameworthiness in opposite ways. For instance, medical

⁵⁵ Algorithms (n 19).

⁵⁶ Stephen D Gottfredson and Laura J Moriarty, 'Statistical Risk Assessment: Old Problems and New Applications' (2006) 52(1) Crime and Delinquency 178.

Monahan, 'Risk Assessment in Criminal Sentencing' (n 29) 500.

⁵⁸ Min Yang, Stephen C P Wong and J Coid, 'The Efficacy of Violence Prediction: A Meta-Analytic Comparison of Nine Risk Assessment Tools' (2010) 136(5) Psychological Bulletin 740, 759; John Monahan and Jennifer L Skeem, 'Risk Redux: The Resurgence of Risk Assessment in Criminal Sanctioning' (2014) 26(3) Federal Sentencing Reporter 158, 162.

⁵⁹ Monahan, 'Risk Redux: The Resurgence of Risk Assessment in Criminal Sanctioning' (n 58) 162.

⁶⁰ Monahan, 'Risk Assessment in Criminal Sentencing' (n 29) 504.

insanity (not legal insanity) mitigates the blameworthiness but increases the need for incarceration because the accused will have a higher risk of re-offending due to less probability of reform in prison by virtue of his mental illness (if the utilitarian theory is followed rather than the usual retributive theory). What should be done then? Whether it should be taken as an aggravating factor or a mitigating factor is a question, which needs to be considered.

In addition, there exist various kinds of factors, which can be considered in a risk assessment tool, some of them being:

1. Fixed markers (unchangeable) such as gender

2. Variable markers (unchangeable by intervention) such as age

3. Variable risk factors (changeable by intervention) such as employment

4. Causal risk factors (changeable by intervention, and when changed, reduces recidivism) such as substance abuse

5. Promotive factors, which reduce the probability of reoffending, such as gainful employment

6. Protective factors, which reduce the impact of risk factors, i.e., they reduce the chances of recidivism in case of high-risk offenders such as in intimate relationships⁶¹

Now, by virtue of the difference in the character of various factors, different weights need to be attached to each of them, and therefore, it is required that they are differentiated clearly, but that is not the case every time. The promotive factors are often confused with protective factors even though they work in opposite directions. The confusion existing between causal factors and variable factors has similar issues. Causal factors when changed have a direct effect over recidivism but that is not so in the case of variable factors.

Due to such confusion in the identification of various risk factors and the differentiation between them, there exists confusion as to the weight to be attached to each factor and it subsequently reflects over the accuracy of the results of risk assessment tools. Therefore, while adopting risk

⁶¹ Monahan, 'Risk Assessment in Criminal Sentencing' (n 29) 489.

assessment tools in India, there is a need to properly classify the various risk factors and the weight to be attached to them.

COMPAS V HUMAN BEINGS

The genesis of the use of risk assessment tools comes from the comparatively better accuracy of risk assessment tools than human decisions. To ascertain the validity of the aforementioned contention, a study had been conducted in the USA to compare the accuracy of risk assessment tools and human beings. The study concluded that the predictive accuracy achieved by the COMPAS after the use of almost 137 features or characteristics can be achieved by untrained human beings with the use of mere 2-3 features. The accuracy of human judgment at 62.80% was found to be only a bit lower than that of COMPAS at 65.20%.⁶² Although the authenticity of the results of the study can be disputed, nevertheless, the said study raises important questions over the most fundamental contention in favour of the use of risk assessment tools.

CONTEMPLATING THE UNDESIRED CONSEQUENCES OF RISK ASSESSMENT TOOLS

The flaws in the use of risk assessment tools have been pointed out in the previous section. In this section, the authors will briefly discuss the potential repercussions of the use of risk assessment tools in the award of death sentences.

FURTHER REINFORCEMENT OF THE BIAS IN THE LEGAL SYSTEM

The existence of the socio-economic bias in risk assessment tools cannot be denied in the light of various studies as mentioned in the earlier parts of the article. The use of such socio-economic variables, which are beyond an individual's control, for the purpose of sentencing has been opposed by various scholars. Tonry McKnight, Presidential Professor of Criminal Law and Policy at the University of Minnesota Law School, has argued that the education level and employment status have no effect over the offender's blameworthiness for committing a crime.⁶³ It has been argued that the previous events considered by risk assessment tools have been influenced by the socio-economic bias. Therefore, their use in risk assessment tools further

⁶² Dressel (n 20).

⁶³ Monahan, 'Risk Assessment in Criminal Sentencing' (n 29) 504.

perpetuates the bias.⁶⁴ At present, the socio-economic bias in the award of the death penalty is apparent in India,⁶⁵ and in any case, it will not be a progressive step to further reinforce it with the use of risk assessment tools. It will make the situation worse for marginalised castes and religious minorities.

QUESTIONS OVER THE UTILITY OF RISK ASSESSMENT TOOLS

Various studies in the USA have established the existence of a natural limit to the accuracy of the predictability of risk assessment tools. There have been a large number of cases of false negatives (when a person who recidivates had been predicted as a low-risk offender) and false positives (when a person predicted as a high-risk offender does not recidivate). In one study, it has even been shown that there is no substantial difference between the accuracy of predictability of human beings and one of the most popular risk assessment tools in the USA, COMPAS. Although the authenticity of the report may be questioned, it gives a scope for the argument as to the need to adopt risk assessment tools in the absence of better decision-making power.

A CHALLENGE TO THE CONSTITUTIONALITY OF RISK ASSESSMENT OF RISK ASSESSMENT TOOLS

The opacity of risk assessment tools has often come in conflict with the fundamental rights of the person examined since he cannot verify the accuracy of the tool or challenge its score. In India, a country where the fundamental rights have been accorded the highest sanctity by the Supreme Court, such opacity is bound to raise various legal and constitutional concerns.

CONCLUSION

Risk assessment tools, though limited in predictive accuracy, are comparatively better than decisions based on judicial discretion as they bring objectivity to the sentencing decisions. Thus, they form the best option available at the behest of the criminal justice system. Also, it is a settled position that a proper sentence is the amalgam of many factors such as the nature of the offence, extenuating or aggravating circumstances, prior criminal record, employment record of the offender and the background with reference to education, home life and social adjustment

⁶⁴ Chanenson (n 33) 4.

⁶⁵ Project 39A (n 13).

etc. that are to be considered in sentencing the individual.⁶⁶ Unfortunately, in our legal system, there is neither a comprehensive provision nor adequate machinery for the collection and presentation of social and personal data to the extent that the sentence can be based upon it or probation be granted.⁶⁷ Risk assessment tools can be an answer to this lacuna in the Indian legal system.

However, to enable them to fulfil the primary objective of doing away with the subjectivity in the award of a death penalty and provide an objective backing to the decisions of the courts, certain modifications are required to be made and certain mechanisms need to be put into place.

The authors suggest the following ways to ensure that risk assessment tools are used to the best of their capacity and for reducing the arbitrariness in awarding capital punishment:

TRANSPARENCY

The steps to ensure transparency and accountability form a necessary precondition before the adoption of risk assessment tools in India. The proprietary rights of the developers of risk assessment tools shall be balanced with the right of the person examined to be informed about the reasons for the sentence being awarded to him. One way can be the development of risk assessment tools by the State, and subsequently, the State shall make its working principles public. As a result of this, the person examined, as well as the researchers and academicians can bring challenge against the tools, and the person examined can even verify the accuracy of the risk assessment results.

PROPER PERIODIC VALIDATION TESTS

Risk assessment tools shall be reviewed not only initially but also periodically so that their work can be reviewed and their accuracy can be verified. It will ensure that the number of false positives and false negatives are in a manageable condition.

⁶⁶ Santa Singh v State of Punjab (1976) 4 SCC 190.

⁶⁷ Ediga Anamma v State of Andhra Pradesh 1974 SCR (3) 329.

FAIRNESS AND PLANS TO ADDRESS BIASES

In the first place, the proponents of risk assessment tools shall make sure that the issue of racial bias in the USA does not convert itself into casteism in India or that it does not further reinforce the existing bias in the criminal justice system of India against the socio-economic minorities. It shall be made sure that the socio-economic factors are used in a way not to adversely affect the accused, explicitly or implicitly.

In addition to this, since the studies in the USA have found that all risk assessment tools have a limited predictability and some biases can be seen no matter how much they are avoided, therefore some plans should be placed into place to tackle these biases and to ensure that these biases do not have a catastrophic effect on the sentence of the accused.

TRAINED STAFF

One of the major requirements of the effective execution of risk assessment tools is properly trained staff. Therefore, before introducing risk assessment tools in India, proper training of the court staff, prison staff, as well as the judges in basic psychology and psychiatry, shall be ensured.

NEEDS OF THE JUDGES

If risk assessment tools were considered as a product, the judges would be the consumers. Therefore, their needs shall be taken into consideration and risk assessment tools shall be drafted accordingly.