

SUPPLEMENT TO “AFFIRMATIVE ACTION IN INDIA VIA VERTICAL,  
HORIZONTAL, AND OVERLAPPING RESERVATIONS”  
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In this supplement, we present the institutional background on vertical and horizontal reservations, documentation of evidence from Indian court rulings on the disruption caused by the flaws of the the SCI-AKG choice rule, and a proposition showing that the SCI-AKG choice rule is equivalent to the one we presented in the paper.

APPENDIX B: INSTITUTIONAL BACKGROUND ON VERTICAL AND HORIZONTAL  
RESERVATIONS

IN THIS APPENDIX, WE PRESENT:

- (1) the description of the concepts of vertical reservation and horizontal reservation as they are quoted in the Supreme Court judgments *Indra Sawhney (1992)* in Appendix B.1 and *Rajesh Kumar Daria (2007)* in Appendix B.2,
- (2) the main quotes from the Supreme Court judgments *Anil Kumar Gupta (1995)* and *Rajesh Kumar Daria (2007)* that allow us to formulate the SCI-AKG choice rule in Appendix B.3,
- (3) the revised mandates of the Supreme Court judgment *Saurav Yadav (2020)*, which imply the 2SMG choice rule is the only mechanism that remains lawful for the case of non-overlapping horizontal reservations in Appendix B.4, and
- (4) the description of the 2SMG choice rule that is mandated in the State of Gujarat as it is quoted in the August 2020 High Court of Gujarat judgment *Tamannaben Ashokbhai Desai (2020)* in Appendix B.5.

B.1. *Indra Sawhney (1992): Introduction of Vertical and Horizontal Reservations*

The terms *vertical reservation* and *horizontal reservation* were coined by the Constitution bench of the Supreme Court of India, in the historical judgment *Indra Sawhney (1992)*, where

- the former was formulated as a policy tool to accommodate the higher-level protective provisions sanctioned by Article 16(4) of the Constitution of India, and
- the latter was formulated as a policy tool to accommodate the lower-level protective provisions sanctioned by Article 16(1) of the Constitution of India.

The description of these two affirmative action policies and how they are intended to interact with each other is given in the judgment with following quote:

A little clarification is in order at this juncture: all reservations are not of the same nature. There are two types of reservations, which may, for the sake of convenience, be referred to as ‘vertical reservations’

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and 'horizontal reservations'. The reservation in favour of scheduled castes, scheduled tribes and other backward classes [under Article 16(4)] may be called vertical reservations whereas reservations in favour of physically handicapped [under clause (1) of Article 16] can be referred to as horizontal reservations. Horizontal reservations cut across the vertical reservations - what is called interlocking reservations. To be more precise, suppose 3% of the vacancies are reserved in favour of physically handicapped persons; this would be a reservation relatable to clause (1) of Article 16. The persons selected against his quota will be placed in the appropriate category; if he belongs to SC category he will be placed in that quota by making necessary adjustments; similarly, if he belongs to open competition (OC) category, he will be placed in that category by making necessary adjustments.

It is further emphasized in the judgment that vertical reservations in favor of backward classes SC, ST, and OBC (which the judges refer to as *reservations proper*) are "set aside" for these classes.

In this connection it is well to remember that the reservations under Article 16(4) do not operate like a communal reservation. It may well happen that some members belonging to, say Scheduled Castes get selected in the open competition field on the basis of their own merit; they will not be counted against the quota reserved for Scheduled Castes; they will be treated as open competition candidates.

### B.2. *Rajesh Kumar Daria (2007): The Distinction Between Vertical Reservation and Horizontal Reservation*<sup>1</sup>

The distinction between vertical reservations and horizontal reservations, that is, the "over-and-above" aspect of the former and the "minimum guarantee" aspect of the latter, is further elaborated in the Supreme Court judgment *Rajesh Kumar Daria (2007)*.

The second relates to the difference between the nature of vertical reservation and horizontal reservation. Social reservations in favour of SC, ST and OBC under Article 16(4) are 'vertical reservations'. Special reservations in favour of physically handicapped, women etc., under Articles 16(1) or 15(3) are 'horizontal reservations'. Where a vertical reservation is made in favour of a backward class under Article 16(4), the candidates belonging to such backward class, may compete for non-reserved posts and if they are appointed to the non-reserved posts on their own merit, their numbers will not be counted against the quota reserved for the respective backward class. Therefore, if the number of SC candidates, who by their own merit, get selected to open competition vacancies, equals or even exceeds the percentage of posts reserved for SC candidates, it cannot be said the reservation quota for SCs has been filled. The entire reservation quota will be intact and available in addition to those selected under Open Competition category. [Vide--*Indira Sawhney (Supra)*, *R. K. Sabharwal vs. State of Punjab (1995 (2) SCC 745)*, *Union of India vs. Virpal Singh Chauhan (1995 (6) SCC 684* and *Ritesh R. Sah vs. Dr. Y. L. Yamul (1996 (3) SCC 253)*]. But the aforesaid principle applicable to vertical (social) reservations will not apply to horizontal (special) reservations. Where a special reservation for women is provided within the social reservation for Scheduled Castes, the proper procedure is first to fill up the quota for scheduled castes in order of merit and then find out the number of candidates among them who belong to the special reservation group of 'Scheduled Castes-Women'. If the number of

<sup>1</sup>The case is available at <https://indiankanoon.org/doc/698833/> (last accessed on 06/10/2021).

women in such list is equal to or more than the number of special reservation quota, then there is no need for further selection towards the special reservation quota. Only if there is any shortfall, the requisite number of scheduled caste women shall have to be taken by deleting the corresponding number of candidates from the bottom of the list relating to Scheduled Castes. To this extent, horizontal (special) reservation differs from vertical (social) reservation. Thus women selected on merit within the vertical reservation quota will be counted against the horizontal reservation for women.

### B.3. *Anil Kumar Gupta (1995): Implementation of Horizontal Reservations Compartmentalized Within Vertical Reservations*

While horizontal reservations can be implemented either as *overall horizontal reservations* for the entire set of positions, or as *compartment-wise horizontal reservations* within each vertical category including the open category (OC), the Supreme Court recommended the latter in their judgment of *Anil Kumar Gupta (1995)*:

We are of the opinion that in the interest of avoiding any complications and intractable problems, it would be better that in future the horizontal reservations are compartmentalised in the sense explained above. In other words, the notification inviting applications should itself state not only the percentage of horizontal reservation(s) but should also specify the number of seats reserved for them in each of the social reservation categories, viz., S.T., S.C., O.B.C. and O.C.

The procedure to implement compartmentalized horizontal reservation is described in *Anil Kumar Gupta (1995)* as follows:

The proper and correct course is to first fill up the O.C. quota (50%) on the basis of merit: then fill up each of the social reservation quotas, i.e., S.C., S.T. and B.C; the third step would be to find out how many candidates belonging to special reservations have been selected on the above basis. If the quota fixed for horizontal reservations is already satisfied--in case it is an over-all horizontal reservation--no further question arises. But if it is not so satisfied, the requisite number of special reservation candidates shall have to be taken and adjusted/accommodated against their respective social reservation categories by deleting the corresponding number of candidates therefrom. (If, however, it is a case of compartmentalised horizontal reservation, then the process of verification and adjustment/accommodation as stated above should be applied separately to each of the vertical reservations.

The adjustment phase of the procedure for implementation of horizontal reservation is further elaborated in the Supreme Court judgment *Rajesh Kumar Daria (2007)* as follows:

If 19 posts are reserved for SCs (of which the quota for women is four), 19 SC candidates shall have to be first listed in accordance with merit, from out of the successful eligible candidates. If such list of 19 candidates contains four SC women candidates, then there is no need to disturb the list by including any further SC women candidate. On the other hand, if the list of 19 SC candidates contains only two woman candidates, then the next two SC woman candidates in accordance with merit, will have to be included in the list and corresponding number of candidates from the bottom of such list shall have to be deleted, so as to ensure that the final 19 selected SC candidates contain four women SC candidates. [But if the list of 19 SC candidates contains more than four women candidates, selected on own merit, all of them will continue in the list and there is

no question of deleting the excess women candidate on the ground that 'SC-women' have been selected in excess of the prescribed internal quota of four.]

#### B.4. *Saurav Yadav (2020): Revised Mandates on Implementation of Vertical and Horizontal Reservations and Indirect Enforcement of the 2SMG Choice Rule*

Focusing on the model with non-overlapping HR protections, the most visible mandates of the December 2020 Supreme Court judgment *Saurav Yadav (2020)* in relation to our axioms are:

- (1) the clarification that all individuals are to be considered for open-category HR-protected positions, thus enforcing the axiom of *maximal accommodation of HR-protections*, and
- (2) the enforcement of *no justified envy* as its primary mandate.

The following quote from the judgment, however, is also critical, because it implies that our axiom of *compliance with VR protection* in Definition 12 of the paper is also enforced in its stronger form with Condition 3:

36. Finally, we must say that the steps indicated by the High Court of Gujarat in para 56 of its judgment in Tamannaben Ashokbhai Desai contemplate the correct and appropriate procedure for considering and giving effect to both vertical and horizontal reservations. The illustration given by us deals with only one possible dimension. There could be multiple such possibilities. Even going by the present illustration, the first female candidate allocated in the vertical column for Scheduled Tribes may have secured higher position than the candidate at Serial No.64. In that event said candidate must be shifted from the category of Scheduled Tribes to Open/General category causing a resultant vacancy in the vertical column of Scheduled Tribes. Such vacancy must then enure to the benefit of the candidate in the Waiting List for Scheduled Tribes--Female.

More specifically, the quote formulates the mandate that a member of a reserve-eligible category (Scheduled Tribes in the example) has to be considered for open-category HR-protected positions (for women HR protections in the example) before using up a VR-protected position. Apart from its enforcement of our axiom *compliance with VR protections*, this quote also brings clarity for the following defining characteristic of VR protections, originally formulated in *Indra Sawhney (1992)*, in the presence of HR protections:

It may well happen that some members belonging to, say Scheduled Castes get selected in the open competition field on the basis of their own merit; they will not be counted against the quota reserved for Scheduled Castes; they will be treated as open competition candidates.

Prior to *Saurav Yadav (2020)*, a formal interpretation was never provided for the following question: What does it mean to be *selected in the open competition field on the basis of one's own merit* in the presence of HR protections? For the case of non-overlapping horizontal reservations, this question is answered as follows in *Saurav Yadav (2020)*: Any individual who is entitled to an open position based on her merit score, *including those who are entitled to one due to the adjustments to accommodate the HR protections*, is considered as an individual who is selected in the open competition field on the basis of her own merit.

Since the fourth axiom *non-wastefulness* has always been enforced since *Indra Sawhney (1992)*, our Theorem 1 in the paper implies that the 2SMG choice rule is the only mechanism that satisfies all mandates of *Saurav Yadav (2020)* for in-field applications with non-overlapping HR protections.

B.5. *Tamannaben Ashokbhai Desai (2020): High Court Mandate on Adoption of the 2SMG Choice Rule in the State of Gujarat*

With its August 2020 High Court judgment *Tamannaben Ashokbhai Desai (2020)*, the two-step minimum guarantee choice rule (2SMG) is now mandated for allocation of state public jobs in the State of Gujarat. While the choice rule is given in the judgment only for a single horizontal trait (women), it is also well-defined and well-behaved for multiple (but non-overlapping) traits as presented in Theorem 1 in the paper. Originally introduced in [Sönmez and Yenmez \(2019\)](#) prior to the judgment of the High Court of Gujarat in December 2020, the 2SMG choice rule is endorsed by the Supreme Court judgment *Saurav Yadav (2020)* for the entire country.<sup>2</sup> Paragraph 56 of the High Court of Gujarat judgment *Tamannaben Ashokbhai Desai (2020)* describes the mandated procedure as follows:

For the future guidance of the State Government, we would like to explain the proper and correct method of implementing horizontal reservation for women in a more lucid manner.

PROPER AND CORRECT METHOD OF IMPLEMENTING HORIZONTAL RESERVATION FOR WOMEN

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Step 1: Draw up a list of at least 100 candidates (usually a list of more than 100 candidates is prepared so that there is no shortfall of appointees when some candidates don't join after offer) qualified to be selected in the order of merit. This list will contain the candidates belonging to all the aforesaid categories.

Step 2: From the aforesaid Step 1 List, draw up a list of the first 51 candidates to fill up the OC quota (51) on the basis of merit. This list of 51 candidates may include the candidates belonging to SC, ST and SEBC.

Step 3: Do a check for horizontal reservation in OC quota. In the Step 2 List of OC category, if there are 17 women (category does not matter), women's quota of 33% is fulfilled. Nothing more is to be done. If there is a shortfall of women (say, only 10 women are available in the Step 2 List of OC category), 7 more women have to be added. The way to do this is to, first, delete the last 7 male candidates of the Step 2 List.

Thereafter, go down the Step 1 List after item no. 51, and pick the first 7 women (category does not matter). As soon as 7 such women from Step 1 List are found, they are to be brought up and added to the Step 2 List to make up for the shortfall of 7 women. Now, the 33% quota for OC women is fulfilled. List of OC category is to be locked. Step 2 List becomes final.

Step 4: Move over to SCs. From the Step 1 List, after item no. 51, draw up a list of 12 SC candidates (male or female). These 12 would also include all male SC candidates who got deleted from the Step 2 List to make up for the shortfall of women.

Step 5: Do a check for horizontal reservation in the Step 4 List of SCs. If there are 4 SC women, the quota of 33% is complete. Nothing more is to be done. If there is a shortfall of SC women (say, only 2 women are available), 2 more women have to be added. The way to do this is to, first, delete the last 2 male SC candidates of the Step 4 List and then to go down the Step 1 List after item no. 51, and pick the first 2 SC women. As soon as 2 such SC women in Step 1 List are found, they are to be brought up and added to the Step 4 List of SCs to make up for the shortfall of SC women. Now, the 33% quota for SC women is fulfilled. List of SCs is to be locked. Step 4 List becomes final. If 2 SC women cannot be found till the last number in the Step 1 List, these 2 vacancies are

<sup>2</sup>The two-step minimum guarantee choice rule is referred to as  $C_{2s}^{\text{hor}}$  in [Sönmez and Yenmez \(2019\)](#).

to be filled up by SC men. If in case, SC men are also wanting, the social reservation quota of SC is to be carried forward to the next recruitment unless there is a rule which permits conversion of SC quota to OC.

Step 6: Repeat steps 4 and 5 for preparing list of STs.

Step 7: Repeat steps 4 and 5 for preparing list of SEBCs.

## APPENDIX C: DOCUMENTATION OF EVIDENCE FROM INDIAN COURT RULINGS ON DISRUPTION CAUSED BY THE FLAWS OF THE SCI-AKG CHOICE RULE

In this appendix, we present extensive evidence on the disarray caused by the shortcomings of the SCI-AKG choice rule in India. Much of our analysis, the High Court judgments presented in Appendix C.1, and our policy recommendations parallel the arguments and the decision of the December 2020 Supreme Court judgment *Saurav Yadav (2020)*. Our entire analysis and policy recommendations predate this important judgment, and it was already presented in an earlier draft of this paper (Sönmez and Yenmez, 2019).

As we argue in Section 3.1 of the paper, the SCI-AKG choice rule fails our axioms of *no justified envy*. Moreover, it also fails *incentive compatibility* due to backward class candidates losing their open-category HR protections upon claiming their VR protections by declaring their backward class status.

The failure of SCI-AKG choice rule to satisfy no justified envy is fairly straightforward to observe. All it takes is a rejected backward class candidate to realize that her merit score is higher than an accepted general-category candidate, even though she qualifies for all the HR protections the less-deserving (but still accepted) candidate qualifies for. Since the primary role of the reservation policy is positive discrimination for candidates with more vulnerable backgrounds, this situation is very counterintuitive, and it often results in legal action. Focusing on complications caused by either anomaly, we next present several court cases to document how they handicap concurrent implementation of vertical and horizontal reservation policies in India.

### C.1. High Court Cases Related to Justified Envy

The possibility of justified envy under the SCI-AKG choice rule has resulted in numerous court cases throughout India for more than two decades, and since the presence of justified envy in the system is highly implausible, these legal challenges often result in controversial rulings. In addition, there are also cases where authorities who implement a better-behaved version of the choice rule, one that does not suffer from this shortcoming, are nonetheless challenged in court, on the basis that their adopted choice rules differ from those mandated by the Supreme Court. These court cases are not restricted to lower courts, and include several cases in state high courts. Even at the level of state high courts, the judgments on this issue are highly inconsistent, largely due to the disarray created by the possibility of justified envy under the SCI-AKG choice rule. We next present several representative cases from high courts:

- (1) ***Rajeshwari vs State (Panchayati Raj Dep) Ors, 15 March, 2013, Rajasthan High Court.***<sup>3</sup> This case combines 120 petitions against the State of Rajasthan where the petitioners seek legal action from the Rajasthan High Court by a large number of petitioners against the state government, on the basis that reserve-category women are allowed to benefit from open-category horizontally reserved positions

<sup>3</sup>The case is available at <https://indiankanoon.org/doc/128221069/> (last accessed on 03/07/2019).

for women. The high court ruled that the state is at fault, and it must abandon its choice rule, adopting the one mandated by the Supreme Court. The following quote is from a story published in *The Times of India* covering this court case:<sup>4</sup>

In a judgment that would affect all recruitments in the state government, the Rajasthan high court has ruled that posts reserved for women in the open/general category cannot be filled with women from reserved categories even if the latter are placed higher on the merit list...

Women candidates who contested for different positions in at least three government departments, including the panchayati raj, education and medical, last year had challenged the government move to allow "migration" of reserved category women to fill the open-category seats. The positions applied for included that of teachers Grade-II and III, school lecturers, headmasters and pharmacists.

Ironically, while the High Court's decision is correct, it also means that the better-behaved version of the choice rule has to be abandoned by the state.

- (2) ***Ashish Kumar Pandey And 24 Others vs State Of U.P. And 29 Others on 16 March, 2016, Allahabad High Court.***<sup>5</sup> This lawsuit was brought to Allahabad High Court by 25 petitioners, disputing the mechanism employed by the State of Uttar Pradesh—the most populous state in India with more than 200 million residents—to apply the provisions of horizontal reservations in their allocation of more than 4,000 civil police and platoon commander positions. Of these positions, 27%, 21%, and 2% are each vertically reserved for members of Other Backward Classes (OBC), Scheduled Castes (SC), and Scheduled Tribes (ST), respectively, and 20%, 5%, and 2% are each horizontally reserved for women, ex-servicemen, and dependents of freedom fighters, respectively. While only 19 women are selected for open-category positions based on their merit scores, the total number of female candidates is less than even the number of open-category horizontally reserved positions for women, and as such, all remaining women are selected. However, instead of assigning them positions from their respective backward class categories (as it is mandated under the SCI-AKG choice rule), all of them are assigned positions from the open category. Similarly, backward class candidates are deemed eligible to use horizontal reservations for dependents of freedom fighters and ex-servicemen as well. The counsel for the petitioners argues that not only did the State of U.P. make an error in its implementation of horizontal reservations, but also that the error was intentional. The following quote is from the court case:

Per contra, learned counsel appearing for the petitioners would submit that fallacy was committed by the Board deliberately, and with malafide intention to deprive the meritorious candidates their rightful placement in the open category. The candidates seeking horizontal reservations belonging to OBC and SC category were wrongly adjusted in the open category, whereas, they ought to have been adjusted in their quota provided in respective social category. The action of the Board is not only motivated, but purports to take forward the unwritten agenda of the State Government to accommodate as many number of OBC/SC candidates in the open category.

<sup>4</sup>The *Times of India* story is available at <https://timesofindia.indiatimes.com/city/jaipur/Womens-seats-on-open-merit-cant-be-filled-from-SC/ST-quota-High-court/articleshow/19101277.cms> (last accessed on 03/07/2019).

<sup>5</sup>The case is available at <https://indiankanoon.org/doc/74817661/> (last accessed on 03/07/2019).

The judge sides with the petitioners, and rules that the State of Uttar Pradesh must correct its erroneous application of the provisions of horizontal reservations. The judge further emphasizes that the State has played foul, stating:

There is merit in the submission of the learned counsel for the petitioners that the conduct of the members of the Board appears not only mischievous but motivated to achieve a calculated agenda by deliberately keeping meritorious candidates out of the select list. The Board and the officials involved in the recruitment process were fully aware of the principle of horizontal reservations enshrined in Act, 1993 and Government Orders which were being followed by them in previous selections of SICP and PC (PAC), but in the present selection they chose to adopt a principle against their own Government Orders and the statutory provisions which were binding upon them..

I am constrained to hold that both the State and the Board have played fraud on the principles enshrined in the Constitution with regard to public appointment.

What is especially surprising is that, despite the heavy tone of this judgment, the State goes on to appeal in another Allahabad High Court case *State Of U.P. And 2 Ors. vs Ashish Kumar Pandey And 58 Ors*, 29 July, 2016,<sup>6</sup> in an effort to continue using its preferred method for implementing horizontal reservations. Perhaps unsurprisingly, this appeal was denied by the High Court.

This particular case clearly illustrates that there is strong resistance in at least some of the states to implementing the provisions of horizontal reservations as mandated under the SCI-AMG choice rule. While this resistance most likely reflects the political nature of this debate, the arguments of the counsel for the state to maintain their preferred mechanism are mostly based on the presence of justified envy under the SCI-AMG choice rule. The following quote from the appeal illustrates that this was the main argument used in their defense:

The arguments that have been advanced on behalf of State and private appellant with all vehemence that women candidates irrespective of their social class i.e. SC/ST/OBC are entitled to make place for themselves in an open category on their inter-se merit clearly gives an impression to us that State of U.P and its agents/servants and even the private appellants are totally unaware of the distinction that has been time and again reiterated in between vertical reservation and horizontal reservation and the way and manner in which the provision has to be pressed and brought into play.

- (3) *Asha Ramnath Gholap vs President, District Selection Committee & Ors. on March 3rd, 2016, Bombay High Court.*<sup>7</sup> In this case, there are 23 pharmacist positions to be allocated; 13 of these positions are vertically reserved for backward classes and the remaining 10 are open for all candidates. In the open category, 8 of the 10 positions are horizontally reserved for various groups, including 3 for women. The petitioner, Asha Ramnath Gholap, is an SC woman, and while there is one vertically reserved position for SC candidates, there is no horizontally reserved position for SC women. Under the SCI-AMG choice rule, she is not eligible for any of the horizontally reserved positions for women at the open category. Nevertheless, she

<sup>6</sup>The case is available at <https://indiankanoon.org/doc/71146861/> (last accessed on 03/07/2019).

<sup>7</sup>The case is available at <https://indiankanoon.org/doc/178693513/> (last accessed on 03/08/2019).



brings her case to the Bombay High Court based on an instance of justified envy, described in the court records as follows:

It is the contention of the petitioner that Respondent Nos. 4 & 5 have received less marks than the petitioner and as such, both were not liable to be selected. The petitioner has, therefore, approached this court by invoking the writ jurisdiction of this court under Article 226 of the Constitution of India, seeking quashment of the select list to the extent it contains the names of Respondent Nos. 4 and 5 against the seats reserved for the candidates belonging to open female category.

Under the federal law, there is no merit to this argument, because the SCI-AKG choice rule allows for justified envy. However, the judges side with the petitioner on the basis that a candidate cannot be denied a position from the open category based on her backward class membership, essentially ruling out the possibility of justified envy under a Supreme Court-mandated choice rule, which is designed to allow for positive discrimination for vulnerable groups.<sup>8</sup> Their justification is given in the court records as follows:

We find the argument advanced as above to be fallacious. Once it is held that general category or open category takes in its sweep all candidates belonging to all categories irrespective of their caste, class or community or tribe, it is irrelevant whether the reservation provided is vertical or horizontal. There cannot be two interpretations of the words 'open category' ...

- (4) *Uday Sisode vs Home Department (Police) on 24 October, 2017, Madhya Pradesh High Court.*<sup>9</sup> In another case parallel to that at the Bombay High Court, the judges of the Madhya Pradesh High Court issued a questionable decision by siding with a petitioner who filed this lawsuit based on another instance of justified envy.
- (5) *Smt. Megha Shetty vs State Of Raj. & Anr on 26 July, 2013, Rajasthan High Court.*<sup>10</sup> In contrast to *Asha Ramnath Gholap (2016)* and *Uday Sisode (2017)* where the judges have been erroneous siding with petitioners whose lawsuits are based on instances of justified envy, in this case a general-category petitioner seeks legal action against the state on the basis that several HR-protected open-category positions for women are allocated to women from OBC who are not eligible for these positions (unless they receive it without invoking the benefits of horizontal reservation). While all these OBC women have higher merit scores than the petitioner and the state has apparently used a better-behaved procedure, the petitioner's case has merit because the SCI-AKG choice rule allows for justified envy in those situations. In an earlier lawsuit, the petitioner's case was already declined by a single judge of the

<sup>8</sup>In a very similar Bombay High Court case *Rajani Shaileshkumar Khobragade ... vs The State Of Maharashtra And ... on 31 March, 2017* where the petitioner filed a lawsuit based on another instance of justified envy, the judges of the same high court dismissed the petition. This case is available at <https://indiankanoon.org/doc/7250640/>, last accessed on 03/09/2019. Indeed, there seem to be several conflicting decisions at the Bombay High Court on this very issue, including a series of cases reported in a *The Times of India* story dated 07/18/2018 "MPSC won't issue job letters till HC hears plea on quota issue" available at <https://timesofindia.indiatimes.com/city/aurangabad/mpsc-wont-issue-job-letters-till-hc-hears-plea-on-quota-issue/articleshow/65029505.cms> (last accessed on 03/09/2019).

<sup>9</sup>The case is available at <https://indiankanoon.org/doc/196750337/> (last accessed on 03/08/2019).

<sup>10</sup>The case is available at <https://indiankanoon.org/doc/78343251/> (last accessed on 10/08/2019).

same court based on an erroneous interpretation of *Indra Sawhney (1992)*. The petitioner subsequently appeals this erroneous decision and brings the case to a larger bench of the same court. However, the three judges side with the earlier judgment, thus erroneously dismissing the appeal. Their decision is justified as follows:

The outstanding and important feature to be noticed is that it is not the case of the appellant-petitioner that she has obtained more marks than those 8 OBC (Woman) candidates, who have been appointed against the posts meant for General Category (Woman), inasmuch as, while the appellant is at Serial No.184 in the merit list, the last OBC (Woman) appointed is at Serial No.125 in the merit list. The controversy raised by the appellant is required to be examined in the context and backdrop of these significant factual aspects.

As seen from this argument, many judges have difficulty perceiving that the Supreme Court-mandated procedure could possibly allow for justified envy.

- (6) *Mukta Purohit & Ors vs State & Ors on 12 April, 2018, Rajasthan High Court*.<sup>11</sup> In a case that mimics *Smt. Megha Shetty (2013)*, judges of the Rajasthan High Court erroneously dismiss a petition filed against the state that allowed HR-protected open-category positions for women to be allocated to women from reserved categories who are ineligible. Indeed, *Smt. Megha Shetty (2013)* is used as a precedent in this judgment.
- (7) *Arpita Sahu vs The State Of Madhya Pradesh on 21 August, 2012 Madhya Pradesh High Court*.<sup>12</sup> The petitioner files a lawsuit based on an instance of justified envy; however, in contrast to *Asha Ramnath Gholap (2016)*, and *Uday Sisode (2017)*, the judges have correctly dismissed the petition in this case.

### C.2. Wrongful Implementation and Possible Misconduct

It is bad enough that the Supreme Court-mandated SCI-AMK choice rule is not incentive-compatible, forcing some candidates to risk losing their open-category HR protections by claiming their VR protections. To make matters worse, in some cases candidates are denied access to open-category HR protections even when they do not submit their backward class status, giving up their VR protections. Therefore, even when the candidate applies for a position as a general-category candidate without claiming the benefits of VR protections, the central planner processes the application as if the backward class status was claimed, denying the candidate's eligibility for open-category HR protections. The central planners are often able to do this because last names in India are, to a large extent, indicative of a caste membership. This type of misconduct seems to be fairly widespread in some jurisdictions, and it is the main cause of lawsuits in dozens of cases such as the two Bombay High Court cases *Shilpa Sahebrao Kadam vs The State Of Maharashtra (2019)* and *Vinod Kadubal Rathod vs Maharashtra State Electricity (2017)*.<sup>13</sup> Indeed, this type of misconduct is sometimes intentional and systematic. The following statement is from *Shilpa Sahebrao Kadam (2019)*:

According to Respondent--Maharashtra Public Service Commission, in view of the Circular dated 13.08.2014, only the candidates belonging to open (Non-reserved) category can be considered for open horizontally reserved

<sup>11</sup>The case is available at <https://indiankanoon.org/doc/126738191/> (last accessed on 10/10/2019).

<sup>12</sup>The case is available at <https://indiankanoon.org/doc/102792215/> (last accessed on 10/10/2019).

<sup>13</sup>The cases are available at <https://indiankanoon.org/doc/89017459/> and <https://indiankanoon.org/doc/162611497/> (last accessed on 03/09/2019).

posts meaning thereby, the reserved category candidates cannot be considered for open horizontally reserved post. Reference is made to a communication issued by the Additional Chief Secretary (Service) of the State of Maharashtra dated 26.07.2017, whereunder it is prescribed that a female candidate belonging to any reserved category, even if tenders application form seeking employment as an open-category candidate, the name of such candidate shall not be recommended for employment against a open-category seat.

Moreover, not all decisions in these lawsuits are made in accordance with the SCI-AKR choice rule, which allows candidates to forego their VR (or HR) protections. This is the case both for the first and last lawsuit listed above. For example, in the last lawsuit, two petitioners each applied for a position without declaring their backward class membership, with the intention to benefit from open-category HR protections. Following their application, these petitioners were requested to provide their school leaving certificates, which provided information on their backward class status. Upon receiving this information, the petitioners were declined eligibility for open-category HR protections, even though they never claimed their VR protections. Hence, they filed the fourth lawsuit given above. Remarkably, their petition was declined on the basis of their backward class membership. Here we have a case where the authorities not only go to great lengths to obtain the backward class membership of the candidates, and wrongfully decline their eligibility for open-category HR protections, but they also manage to get their lawsuits dismissed. The mishandling of this case is consistent with the concerns indicated in the February 2006 issue of *The Inter-Regional Inequality Facility* policy brief.<sup>14</sup>

Another issue relates to the access of SCs and STs to the institutions of justice in seeking protection against discrimination. Studies indicate that SCs and STs are generally faced with insurmountable obstacles in their efforts to seek justice in the event of discrimination. The official statistics and primary survey data bring out this character of justice institutions. The data on Civil Rights cases, for example, shows that only 1.6% of the total cases registered in 1991 were convicted, and that this had fallen to 0.9% in 2000.

### C.3. *Loss of Access to HR Protections Without Any Access to VR Protections*

The main justification offered in various Supreme Court cases for denying backward class members their open-category HR protections is avoiding a situation where an excessive number of positions are reserved for members of these classes. In several cases, however, members of these classes are denied access to open-category HR protections even when the number of VR-protected positions is zero for their reserve-eligible vertical category. This is the case in the following two lawsuits:

- (1) *Tejaswini Raghunath Galande v. The Chairman, Maharashtra Public Service Commission and Ors.* on 23 January 2019, Writ Petition Nos. 5397 of 2016 & 5396 of 2016, High Court of Judicature at Bombay.<sup>15</sup>
- (2) Original Application No. 662/2016 dated 05.12.2017, Maharashtra Administrative Tribunal, Mumbai.<sup>16</sup>

<sup>14</sup>The policy brief is available at <https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/4080.pdf> (last accessed 03/09/2019).

<sup>15</sup>The case is available at <https://www.casemine.com/judgment/in/5c713d919eff4312dfbb5900> (last accessed on 03/09/2019).

<sup>16</sup>The case is available at <https://mat.maharashtra.gov.in/Site/Upload/Pdf/O.A.662%20of%202016.pdf> (last accessed on 03/09/2019).

In both cases, while the petitioners claimed their VR protections, there was no VR-protected position for their class. Yet in both cases, petitioners lost their open-category HR protections. In the first case, the petitioners' lawsuit to benefit from open-category HR protections was initially declined by a lower court, resulting in an appeal at the High Court. The lower court's decision was overruled in the High Court, and her request was granted. On the other hand, the second petitioner's similar request was declined by the Maharashtra Administrative Tribunal. What is more worrisome in the second case is that, while initially three positions were VR-protected for the petitioner's backward class, after the petitioner's application these VR-protected positions were withdrawn. Therefore, the candidate declared her backward class status, giving up her open-category HR protection, presumably to gain access to VR-protected positions set aside for her reserve-eligible class, only to learn that she had given up her eligibility for nothing.

#### APPENDIX D: ORIGINAL FORMULATION OF THE SCI-AKG CHOICE RULE AND ITS EQUIVALENCE TO OUR FORMULATION

The mechanics for implementing HR protections is described in the two Supreme Court judgments *Anil Kumar Gupta (1995)* and *Rajesh Kumar Daria (2007)*, and given in Appendix B.3. In the paper, we used a simpler formulation of the SCI-AKG choice rule, that relies on its relation to the minimum guarantee choice rule. In this appendix, we formulate the original description of the SCI-AKG choice rule and prove its equivalence to our simpler formulation.

Both judgments describe the procedure for a single trait, although the procedure can be repeated sequentially for each trait. In our description below, we adhere to this straightforward extension of the procedure.

As we argue in Section 2.1 of the paper, implementing VR protections is straightforward in the absence of HR protections. Open-category positions are allocated to the highest merit-score candidates (across all categories) first, followed by the positions at each reserve-eligible category to the highest merit-score remaining candidates from these categories. This is indeed the first step of the SCI-AKG choice rule. Once a tentative assignment is determined, the necessary adjustments are subsequently made to implement HR protections, first for the open-category positions, then for positions at each reserve-eligible category. The adjustment process is repeated for each trait.

Formally, for a given category  $v \in \mathcal{V}$  of positions, let a set of individuals  $J \subseteq \mathcal{I}^v$  who are tentatively assigned to category- $v$  positions and a set of individuals  $K \subseteq \mathcal{I}^v \setminus J$  who are eligible for horizontal adjustments at category  $v$  be such that

- (1)  $|J| = q^v$  and
- (2)  $\sigma(i) > \sigma(i')$  for any  $i \in J$  and  $i' \in K$ .

Then, for a given processing sequence  $t^1, t^2, \dots, t^{|\mathcal{T}|}$  of traits, the horizontal adjustment process is carried out with the following procedure.

##### **AKG Horizontal Adjustment Subroutine (AKG-HAS)**

**Step 1 (Trait- $t^1$  adjustments):** Let  $r_1$  be the number of individuals in  $J$  with trait  $t^1$ .

**Case 1.**  $r_1 \geq q_{t^1}^v$

Let  $J^1$  be the set of  $q_{t^1}^v$  individuals with the highest merit scores in  $J$  with trait  $t^1$ .

Finalize their assignments as the recipients of trait- $t^1$  HR-protected positions within category  $v$ . Proceed to Step 2.

**Case 2.**  $r_1 < q_{t^1}^v$

Let  $J_m^1$  be the set of all individuals in  $J$  with trait  $t^1$ . Let  $s_1$  be the number of individuals in  $K$  who have trait  $t^1$ . Let  $J_h^1$  be

- the set of  $(q_{t^1}^v - |J_m^1|)$  individuals with the highest merit scores in  $K$  who have trait  $t^1$  if  $s_1 \geq q_{t^1}^v - |J_m^1|$ , and
- the set of all individuals in  $K$  who have trait  $t^1$  if  $s_1 < q_{t^1}^v - |J_m^1|$ .

Let  $J^1 = J_m^1 \cup J_h^1$  and finalize their assignments as the recipients of trait- $t^1$  HR-protected positions within category  $v$ . Proceed to Step 2.

**Step  $k \in \{2, \dots, |\mathcal{T}|\}$  (Trait- $t^k$  adjustments):** Let  $r_k$  be the number of individuals in  $J \setminus \bigcup_{\ell=1}^{k-1} J^\ell$  with trait  $t^k$ .

**Case 1.**  $r_k \geq q_{t^k}^v$

Let  $J^k$  be the set of  $q_{t^k}^v$  individuals with the highest merit scores in  $J \setminus \bigcup_{\ell=1}^{k-1} J^\ell$  with trait  $t^k$ . Finalize their assignments as the recipients of trait- $t^k$  HR-protected positions within category  $v$ . Proceed to Step 2.

**Case 2.**  $r_k < q_{t^k}^v$

Let  $J_m^k$  be the set of all individuals in  $J \setminus \bigcup_{\ell=1}^{k-1} J^\ell$  with trait  $t^k$ . Let  $s_k$  be the number of individuals in  $K \setminus \bigcup_{\ell=1}^{k-1} J^\ell$  with trait  $t^k$ . Let  $J_h^k$  be

- the set of  $(q_{t^k}^v - |J_m^k|)$  individuals with the highest merit scores in  $K \setminus \bigcup_{\ell=1}^{k-1} J^\ell$  who have trait  $t^k$  if  $s_k \geq q_{t^k}^v - |J_m^k|$ , and
- the set of all individuals in  $K \setminus \bigcup_{\ell=1}^{k-1} J^\ell$  who have trait  $t^k$  if  $s_k < q_{t^k}^v - |J_m^k|$ .

Let  $J^k = J_m^k \cup J_h^k$  and finalize their assignments as the recipients of trait- $t^k$  HR-protected positions within category  $v$ . Proceed to Step  $k + 1$ .

**Step  $(|\mathcal{T}| + 1)$  (Finalization of category- $v$  no-trait assignments):** Let  $J^0$  be the set of  $(q^v - \sum_{\ell=1}^{|\mathcal{T}|} |J^\ell|)$  individuals with the highest merit scores in  $J \setminus \bigcup_{\ell=1}^{|\mathcal{T}|} J^\ell$ .

The procedure selects the set of individuals in  $\bigcup_{\ell=0}^{|\mathcal{T}|} J^\ell$ . Here  $J^0$  is the set of individuals from the original group  $J$  who have survived the horizontal adjustment process without invoking any HR protection, and  $J^k$  is the set of individuals who accommodate trait- $t^k$  HR protections for any trait  $t^k$ .<sup>17</sup>

When each individual has at most one trait, it is easy to see that the processing sequence of traits becomes immaterial under the AKG-HAS, and it produces the same outcome as the category- $v$  minimum guarantee choice rule  $C_{\text{mg}}^v$ . The next result formulates this observation.

**PROPOSITION 1:** *Suppose that each individual has at most one trait. Let  $v \in \mathcal{V}$  be any category of positions,  $J \subseteq \mathcal{I}^v$  be a set of individuals who are tentatively assigned category- $v$  positions, and  $K \subseteq \mathcal{I}^v \setminus J$  be a set of unmatched individuals who are eligible for category- $v$  positions. If  $|J| = q^v$  and every individual in  $J$  has a higher merit score than every individual in  $K$ , then  $C_{\text{mg}}^v(J \cup K)$  is the set of individuals who are assigned to category- $v$  positions under the AKG-HAS.*

**PROOF OF PROPOSITION 1:** Let  $I = J \cup K$  and  $I'$  be the set of individuals assigned to category- $v$  positions by AKG-HAS. We first show that

- (1)  $|I'| = q^v$ ,
- (2) there exists no instance of justified envy involving an individual in  $I'$  and an individual in  $I \setminus I'$ ,
- (3)  $I'$  maximally accommodates category- $v$  HR protections for  $I$ .

<sup>17</sup>While all individuals in  $J^k$  accommodate trait- $t^k$  HR protections, only those who are in the set  $J^k \setminus J$  owe their assignments to trait- $t^k$  HR protections.

The proof then follows from Theorem 2 in the paper together with the equivalence of the meritorious horizontal choice rule and the minimum guarantee choice rule when each individual has at most one trait.

Proof of (1):  $|I'| = q^v$  follows because, at Step  $|\mathcal{T}| + 1$  of AKG-HAS, all positions are filled.

Proof of (2): Let  $i \in I'$  and  $j \in I \setminus I'$  such that  $\sigma(j) > \sigma(i)$ . Since  $j \notin I'$ , either  $j$  does not have a trait or there are at least  $q_t^v$  individuals in  $I'$  where  $t$  is  $j$ 's only trait. If  $j$  does not have a trait, then  $i$  must have a trait  $t'$  such that the number of individuals in  $I'$  who have trait  $t'$  is  $\min\{q_{t'}^v, |\{i' \in I : t' \in \tau(i')\}|\}$ . Then  $n^v((I' \setminus \{i\}) \cup \{j\}) = n^v(I') - 1$ , which means that there is no instance of justified envy involving  $j$  and  $i$ . If  $j$  has trait  $t$ , then it must be that  $i$  does not have trait  $t$ , there are at least  $q_t^v$  individuals with trait  $t$  in  $I'$ , and  $i$  must have a trait  $t' \neq t$  such that the number of individuals in  $I'$  who have trait  $t'$  is  $\min\{q_{t'}^v, |\{i' \in I : t' \in \tau(i')\}|\}$ . Then, as before,  $n^v((I' \setminus \{i\}) \cup \{j\}) = n^v(I') - 1$ , which means that there is no instance of justified envy involving  $j$  and  $i$ .

Proof of (3): For every trait  $t$ , there is a corresponding step of AKG-HAS so that the number of individuals in  $I'$  who have trait  $t$  is  $\min\{q_t^v, |\{i' \in I : t \in \tau(i')\}|\}$ . Since each individual has at most one trait, this implies that  $n^v(I') = n^v(I)$ . *Q.E.D.*

We are ready to present the original formulation of the SCI-AKG choice rule as it is described in *Anil Kumar Gupta (1995)* and *Rajesh Kumar Daria (2007)*. Proposition 1 presented above immediately establishes the equivalence of the original formulation with the formulation presented in Section 3.1 of the paper.

### SCI-AKG Choice Rule $C^{\text{SCI}}$

For every  $I \subseteq \mathcal{I}$ ,

#### Step 1 (Open-category tentative assignment):

- If  $|I| \leq q^o$ , then assign all individuals in  $I$  to open-category positions and terminate the procedure. In this case,  $C^{\text{SCI},o}(I) = I$  and  $C^{\text{SCI},c}(I) = \emptyset$  for any reserve-eligible category  $c \in \mathcal{R}$ .
- Otherwise, if  $|I| > q^o$ , then tentatively assign the highest merit-score  $q^o$  individuals in  $I$  to open-category positions. Let  $J^o$  denote the set of individuals who are tentatively assigned to open-category positions in this case.

**Step 2 (Finalization of open-category positions):** The set of individuals eligible for open-category horizontal adjustments is  $I^s \setminus J^o$ . Apply the AKG-HAS

- to the set  $J^o$  of tentative recipients of open-category positions
- with the set of individuals in  $I^s \setminus J^o$  who are eligible for open-category horizontal adjustments

to finalize the set of recipients  $C^{\text{SCI},o}(I)$  of open-category positions.

**Step 3 (Reserve-eligible category tentative assignment):** For any reserve-eligible category  $c \in \mathcal{R}$ :

- If  $|I^c \setminus C^{\text{SCI},o}(I)| \leq q^c$ , then assign all individuals in  $I^c \setminus C^{\text{SCI},o}(I)$  to category- $c$  positions, finalizing the assignments of individuals in  $I^c$ . In this case,  $C^{\text{SCI},c}(I) = I^c \setminus C^{\text{SCI},o}(I)$ .
- Otherwise, if  $|I^c \setminus C^{\text{SCI},o}(I)| > q^c$ , then tentatively assign the highest merit-score  $q^c$  individuals in  $I^c \setminus C^{\text{SCI},o}(I)$  to category- $c$  positions. Let  $J^c$  denote the set of individuals who are tentatively assigned to category- $c$  positions in this case.

**Step 4 (Finalization of reserve-eligible category positions):** For any reserve-eligible category  $c \in \mathcal{R}$ , the set of individuals eligible for category- $c$  horizontal adjustments is  $I^c \setminus (C^{\text{SCI},o}(I) \cup J^c)$ . For any reserve-eligible category  $c \in \mathcal{R}$ , apply the AKG-HAS

- to the set  $J^c$  of tentative recipients of category- $c$  positions

- with the set of individuals in  $I^c \setminus (C^{\text{SCI},o}(I) \cup J^c)$  who are eligible for category- $c$  horizontal adjustments
- to finalize the set of recipients  $C^{\text{SCI},c}(I)$  of category- $c$  positions.  
 The outcome of the SCI-AMG choice rule is  $C^{\text{SCI}}(I) = (C^{\text{SCI},v}(I))_{v \in \mathcal{V}}$ .

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