Representing the adarsh biometric balak or the ideal biometric child: locating poor children's care work in the Aadhaar welfare state

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ABSTRACT

This article spotlights the role of children from poor, underprivileged families who are drawn into care work to facilitate inclusion for their families in food security by performing fingerprint authentication. Owing to the youthful suppleness of their bodies, children's fingerprints are more likely to succeed in fulfilling biometric requirements. They are also more compliant in having their schooling or playtime disrupted by the unpredictable and time-consuming biometric authentication process. Children's names may also be added on ration cards to facilitate food security for relatives other than their parents who depend on the biometric viability of children's bodies and time for welfare. Supplementing ethnographic data with the state's data of the biometric authentications recorded in the Aadhaar database of India, I make visible the poor child as an 'ideal biometric child' in enabling the biometric assemblage of the welfare state to care for its citizens.

Introduction

Globally, biometric data practices are entrenched as promissory notes of assurance to alleviate the administrative anxieties of aid and welfare programmes. Support for infrastructures such as Aadhaar, India's citizen biometric database – the largest of its kind in the world, is rooted in the ethics and politics of the state delivering welfare benefits, and thus, a form of public care to citizens (Tronto, 1993). Advocates of Aadhaar argued that it would be revolutionary in strengthening the citizenship rights of the poor and improve their inclusion in the state's welfare programmes (Khera, 2019). Nevertheless, as research shows, welfare inclusion by overlaying the Aadhaar database on the public distribution system (PDS), which administers food security in India is rarely a straightforward process (Dreze, 2016; Mudliar, 2020a, 2021; Singh & Jackson, 2017).

In this paper, I illuminate the lesser known role of children belonging to poor families who perform fingerprint authentication every month to ensure inclusion for their

families in India's Aadhaar-based food security programme. The fingerprint authentication process, has garnered attention for the different ways in which people negotiate with their bodies to make them biometrically readable (Rao, 2018). However, most of these enquiries present adult experiences of inclusion in welfare schemes. As I detail in previous work, adult beneficiaries in the PDS, frequently find the demands of fingerprint authentication conflicting with their values around time, dignity, and privacy owing to authentication challenges, coupled with long wait times at the PDS shops where subsidized food grains are distributed. To cope with these value conflicts, they recruit the children in the family to perform authentication, which often results in children missing school and foregoing playtime (Mudliar, 2020a).

Ethnographies that focus on citizen-state interactions commonly default to studying adult experiences, even when they focus on marginalized social categories such as the poor or women. Analytical lenses inspired by Scott (1998) that 'see like the state' and Corbridge's (2005) 'seeing the state' are regularly invoked in anthropological enquiries of the state, but children rarely figure as significant actors in these enquiries that echo an adult-centric vision and imagination of who emerges as significant and worthy of attention when studying the state.

Drawing on the metaphor of vision, Haraway (1988) shows how all vision is a politics of positioning that contributes to partial and situated ways of knowing. Scholarship on children and childhood is a relatively recent development and Solberg (1997) observes that even feminist perspectives have done little to challenge children's marginalization in social science research. This paper is thus motivated by a feminist vision of situated knowing and care (de La Bellacasa, 2017; Haraway, 1988) to be attentive in seeing, recognizing, and making visible, children – especially poor children's involvement in fulfilling the fingerprint authentication mandate as demanded by the welfare state. I do this in the following ways:

First, I argue that children's bodies, their time, and their natural acquiescence to adults emerge as essential boundary objects that are recruited into acts of cooperation and care between the failing or unavailable bodies of adults and the precise demands of live authentication practices by the state. Qvortrup et al. (2009) note that owing to their smallness, children are studied in limiting ways and seldom studied as part of universal and common experiences although they are usually present in most times and places that are a part of life. As an activity, care work is marginalized, devalued, and often taken for granted (Star & Strauss, 1999; Tronto, 1993). When performed by children marginalized by poverty, it retreats even more into invisibility because of it is embeddedness in a background of expectation (Star & Strauss, 1999) by families and the state where their work becomes normalized as a routine chore.

Second, I present evidence of children linked to Aadhaar authentication by analysing data obtained from the state through a right to information (RTI) application. Most empirical work on Aadhaar and welfare programmes draws on qualitative field work data that relies on observations and interviews of various stakeholders. In situating this paper's enquiry with the state's data, I extend my own ethnographic work (Mudliar, 2020a; Mudliar, 2021) by bringing data from the vaults of the state. I thus follow Latour (2004) and Puig de la Bellacasa (2011) who motivate attention towards the staging and re-presenting of things as an aesthetic, ethico-political issue that thickens the reality of matters of fact and generates care for neglected, undervalued issues.

I discuss the findings in the context of the 'Adarsh Balak' or 'Ideal Boy' that is a popular meme in India featuring a middle class boy as a model child citizen to draw attention to the invisibility of poor children's care work as child citizens of a biometric welfare state.

Locating children in the biometric welfare state

None of the above is to suggest that the biometric welfare state is not interested in or does not see the child. As discussed in Mudliar (2020a), state officials who were interviewed about the failure rates of live fingerprint authentication for food entitlements did not think it was an insurmountable problem for families with children as their fingers could pass authentication easily. Thus, the state is both aware that children's fingerprints were better suited for authentication and expect their participation in making the biometric infrastructure work to fulfil the welfare agenda. This awareness and expectation from the child as a readily available solution to adult's fingerprint authentication failures sits at odds with the more formally discussed ways in which the welfare state views its role in children's lives – as one stemming from concerns around child protection, child rights, and nurturing the child.

Children are an important population for enrolment in biometric databases. Identification is essential for children to access rights and benefits and to facilitate the state's tracking and implementation of programmes targeting developmental needs such as vaccination, combating malnutrition, scholarship disbursement, etc. In India, the state does not collect the biometrics of children below five years, but issues a 'Baal Aadhaar' (Child Aadhaar) card based on their name, age, gender, residential address, and photograph that is linked to their parent's Aadhaar number. The child is required to enrol their biometric details on turning 5, consisting of 10 fingerprints and iris scans, with the biometrics updated again on turning 15 (Alphons, 2018).

While contemporary biometric technologies are able to harvest a wide range of human body imprints ranging from iris, face, voice, gait, etc., fingerprints continue to be the most commonly used biometric traits in national identification systems owing to their relative stability over a lifetime (e.g., Kessler et al., 2021; Preciozzi et al., 2020). Researchers report success in capturing fingerprints of infants as young as six hours old to a year old for reliable accuracy (Jain et al., 2016; Preciozzi et al., 2020). Fingerprints are also the least challenging to capture as the children's restlessness makes it disruptive for cameras and scanners to capture other bodily impressions with enough quality and accuracy (Galbally et al., 2018; O'Neill et al., 2022).

The Indian state has also succeeded in enrolling children in Aadhaar with near universal coverage of citizens contrary to early doubts of its viability (Bhatia et al., 2021; Breckenridge, 2019). The positive media coverage and the mandatory linking of Aadhaar to a variety of welfare benefits such as the PDS, accelerated its expansion. Aadhaar has overtaken both perception and use as legally mandated identification for child-related state services over other forms of identification, such as birth certificates (Bhatia et al., 2021). Thus, children's biometrics are integral to Aadhaar's success. However, child-related studies on Aadhaar are very rare and have only centred on children's lack of informed consent when submitting their biometrics to the state (Bhardwaj, 2019).

Seeking care in the simplified welfare state

It is well acknowledged that to meet welfare claims of inclusion and transparency, biometric infrastructures rely on identifying and enumerating people in simple and minimal ways. Simplification makes it easy to classify (Bowker & Star, 2000). It involves the stripping away of the histories, biographies, and contexts that people would normally use to identify and explain their selfhood and replace it with seemingly stable categories of identification such as biometric markers. In its databased avatar, citizen-state relations are reconfigured into imaginaries and metaphors that invoke the entrepreneurial start-up cultures, platformized dashboards, service delivery, and market notions of efficiency that mediate citizen-state relations (e.g., Abraham, 2018; Arora, 2016; Cohen, 2019; Rao & Nair, 2019; Singh, 2019).

As Cohen (2019) notes, the pursuit of data in this newly reconfigured citizen-state relationship insists on the biometric stability of the citizen to be serviceable by the state. Drawing on repair work that Jackson (2014) describes as the restoration of order through care and solidarity, I observed how citizens engage in repair work on their bodies so that they are not overlooked by the state as 'broken data' when they fail technological recognition and verification (Mudliar, 2020b). The care ethic of maintenance and repair that citizens perform to appear as data for the state, ultimately becomes the citizens' responsibility to work on their own bodies. But when even these acts of repair fail, the adults turn to children.

Tronto (1993) observes that the act of care is seen as a retreat into spaces that are private and thus better suited for the intimacy and emotional valence necessary for the tending of needs. This makes the family a natural and desirable location where care is experienced and practiced in an assured, inescapable manner. Tronto attributes this to the natural formations of power and obligations that hold kinship networks together to fulfil duties and responsibilities. As observed by Drèze et al. (2017) relatively large households with many family members who can pass biometric authentication are able to obtain food rations more easily. The dependence of adults on the kinship ties they share with the children for fingerprint authentication is therefore a retreat into the personal histories of families to cope with the state's demands for efficiency in welfare distribution.

The centrality of the family for inclusion in food security in India is not new since the ration cards that are the basis of identification for inclusion in the PDS are issued to families as a unit. Sriraman (2018) notes that the ration card held primacy as an identification document in the welfare state as it acted as proof of the kinship network of the family unit by specifying the head of the family and the relation of other members to the head along with the residential address. Given bureaucratic hurdles, it is often time consuming and challenging for beneficiaries to report deaths or other exits from the family unit on the ration card, causing a host of bureaucratic anxieties around identifying legitimate dependents from ghost beneficiaries as well as validating their place of residence.

Overlaying the Aadhaar biometric database on the PDS database that held ration card demographics was a way to identify legitimate compositions of families. However, the fingerprint authentication requirement could be leading to newer assemblages of families with children's names being 'borrowed' by close relatives to appear on their ration cards

to assist with biometric rituals although effecting these changes are rarely easy for beneficiaries, given bureaucratic processes.

Staying with the trouble for care-ful research: methodological notes on field observations and accessing data from the state

Discovering children in the PDS

Attention towards children in the fingerprint authentication process emerged as a research question mid-way through fieldwork. Travelling back and forth the field opened analytical spaces of distance while engaging with the data, revealing patterns around who was performing authentication. Thus, while children had always been a part of the PDS authentications that I was observing, their presence as a distinct category of analysis assumed salience, only when I was away from the field. Law and Lin (2022) write about the uncertainty and iteration in the practice of research, that requires us to be care-ful in how and what consumes our attention and how it shapes the trajectory of our research.

Thus, I found myself scrutinizing children's presence in the PDS as citizens in their own right owing to a startled realization of the partial, adult centricity, of my own perspective. Since I also did not find children figuring in news reports or in emerging scholarship around Aadhaar, I returned to the field with a new set of questions centred around children's participation in the PDS. The methodological underpinnings of this work are therefore informed by the feminist research ethics of response-able and careful work that calls for a willingness to move attention to new things when surprised by the unexpected (Barad, 2007; Haraway, 2013; Martin et al., 2015).

Engaging with the state

While biometrics were introduced to bring transparency in governance, it is challenging to get data related to Aadhaar transactions. Failure rates of the fingerprint authentication process in the PDS are of interest to scholars and activists working on Aadhaar-linked welfare schemes. However, information on the failure/success of authentication rates is difficult to access and has also been denied under India's right to information (RTI) Act (e.g., Yadav, 2020). In late 2019, a State of Aadhaar report disclosed that 1.5% of the PDS beneficiaries who were surveyed were denied food entitlements owing to authentication failures (Totapally et al., 2019).

The RTI Act itself originated in a grassroots movement in Rajasthan in 1987 spearheaded by the MKSS – the Mazdoor Kisaan Shakthi Sanghathan, an organization for the empowerment of workers and peasants that mobilized the rural poor to fight corruption by demanding transparency in public works undertaken by the state (Mander & Joshi, 1999). Following the legacy of the RTI movement, Rajasthan has been proactive in voluntarily disclosing state records to the public. Working with collectives like the MKSS, it launched the Jan Soochna (public information) portal in 2019 where data from 13 public schemes were made publicly available (Jebaraj, 2019). Nonetheless, neither the RTI Act nor the Jan Soochna portal disclose information about success/failure rates of biometric authentications.

State officials I interviewed were also reticent when asked about authentication failure rates and instead directed attention to the steps they were taking to reduce authentication challenges. I filed an application in June 2019 seeking age-related details of biometric authentications for the PDS conducted in Rajasthan between January 2016 and July 2019 to coincide with the duration of my fieldwork. Aadhaar interfaces with the PDS database that holds the ration card details of all beneficiaries for their authentication. My purpose was to understand the number of authentications linked to people who were under 18 years to compare my own calculations from observing 178 beneficiaries authenticate their fingerprints. Over the course of my fieldwork, I found 42 children i.e., 23% of 178 beneficiaries had performed biometric authentication. The youngest child in my field data was six years old and the oldest was 17 years old.

The RTI Act mandates the state to respond in 30 days to a RTI application. However, getting a response to my application was a protracted and challenging process. I succeeded in receiving a response in February 2020 after multiple applications and appeals. The process brought me into closer contact with officials who were sporadically responsive to clarifications. In the words of Haraway (2016), by staying with what the officers deemed as 'causing trouble' in the pursuit of information, I was making 'oddkin' with the officers since we were drawn into an uneasy collaboration to access and interpret the data that I was collecting.

Method

Fieldwork

As detailed previously (Mudliar, 2020a, 2020b, 2021), I conducted interviews and observations in 14 PDS shops across 10 villages in Rajasthan. Aadhaar authentication was introduced in the PDS in Rajasthan in late 2015. I began fieldwork in March 2017 after preliminary observations in June 2016.

RTI questions

I sought the following details of every beneficiary under the age of 18 who had performed biometric authentication for food entitlements (called rations) in Rajasthan according to year, month, district, and block: (1) age, (2) gender, (3) relation to head of household, (4) category of ration card, (5) if the authentication was performed on a weekend or weekday.

While the rationale for questions on age and gender are self-evident, the other questions I asked were informed by my field observations reported in Mudliar (2020a, 2020b, 2021):

Relation to Head of Household: In interviews, I found that children's names were sometimes transferred to their grandparent's ration cards to enable them to authenticate on their grandparent's behalf who were either too old to visit the PDS dealer or their fingerprints could not pass authentication. Hence, I sought to observe kinship patterns that were appearing in the authentication data.

Category of Ration Card: The quantity of food entitlements that households receive and its cost is determined by the category of ration card issued on the basis of various

criteria such as economic status and assets, livelihood, etc. I sought this data to ascertain the distribution of children-linked authentication among the different ration card categories. While the 2013 National Food Security Act (NFSA) categorizes households into two categories: 1. Antyodaya Anna Yojana (poor households) and 2. The rest as priority households, the transition to these new categories have yet to take full effect in practice. I therefore use the ration card categories that were being followed on the field.

The ration cards are categorized as follows:

(1) Above Poverty Line (APL) for households with regular incomes
(2) Antyodaya (AAY) for the poorest households
(3) Below Poverty Line (BPL) for households below poverty line as determined by the central government
(4) State Below Poverty Line (SBPL) for households BPL as determined by the state government

District: During my fieldwork, Rajasthan had 33 districts and each district was divided into several administrative blocks. I sought these details to find regional patterns in children's authentication.

Month: Anecdotally, the PDS dealers shared that they found more authentication failures during the harvest season as it required manual labour so I sought to know if the number of children performing authentication increased during certain months.

Day of Authentication: Lastly, I sought day-wise patterns in the authentications to compare frequency on week days that are also typically school days over the weekends.

RTI data received from the state

Although Aadhaar only enrols children from age five onwards, the data I received reported ages had ages from 1-17 with some ages also appearing as zero and negative numbers. Officers attribute these anomalies to data entry errors in the PDS database and also shared that there could be a mismatch between the age of the beneficiary on the ration card and their current age. Therefore all ages are approximate.

Second, the figures in the state's data are not representative of the total number of children linked to authentication, but *the number of times* that children are linked to Aadhaar authentications. This is because if the same child is authenticating every month, they would be performing 12 authentications in a year. As the data consists of the total number of authentications logged, there is no way to uniquely ascertain the number of children performing authentication.

Therefore, it is important to note that the figures obtained both via RTI as well as from the state's portal, represent the number of transactions authenticated through the Aadhaar id of a beneficiary. Aadhaar-authenticated transactions may not always be a live biometric/fingerprint transaction. To cope with the fingerprint authentication challenges, the state introduced the option of receiving a one-time password (OTP) on the beneficiaries' phone number connected to the Aadhaar id that could be used to authenticate the beneficiary. However, several PDS dealers refused to use the OTP option as a high number of OTP transactions was viewed suspiciously by the state as evidence of bypassing biometric authentication for malpractice leading to dealer suspensions (Mudliar, 2020a).

Therefore, while these figures represent authentication through the Aadhaar id, they may not be accurately representing the biometrics i.e., fingerprint authentication or the lesser-used iris authentication that was being piloted in some places in the state. Post the COVID-19 pandemic, the OTP use has now been regularized and no longer viewed suspiciously by the state. However, it is common for people to not have access to stable mobile numbers linked to their Aadhaar cards for various reasons ranging from lack of money to top up their prepaid mobile services, losing phones, SIM cards, etc. so the OTP option is not always a reliable alternative when biometric authentications fail.

As part of the proactive disclosure of data by the Rajasthan state, the Department of Food and Civil Supplies that oversees the PDS also uploads on its website, the reports of the point of sale (POS) machine transactions that records the number of Aadhaar-authenticated PDS transactions as well as the number of ration cards in each category. I used this data to compare the RTI data for some of the findings. Lastly, the data received from the state only reports successful authentication and not the number of authentication attempts made by an individual in case of failure on the first attempt.

Data analysis

I received the requested data in a MS Excel spreadsheet on a compact disc. The spreadsheet contained four workbooks for each year i.e., 2016, 2017, 2018, and part of 2019. While I had sought information from January 2016 to July 2019, I received the data only until May 2019. I analysed the spreadsheets using the filter function in Excel to first order the data according to age. For every age group beginning from 1 year – 17 years, I created 68 separate spreadsheets from 2016-2019 to order information according to the different categories. I then consolidated the total numbers for each category according to their age and year to identify overall patterns.

Findings

In the findings below, for each question, I present aggregate patterns for Rajasthan state. Owing to space constraints, only some findings are illustrated with tables presenting the data analysis.

Question 1: How many times have children been linked to Aadhaar authentications in the PDS in Rajasthan?

As seen in Table 1, in 2016, the first year of implementation of the Aadhaar-linked PDS, the number of authentications linked to children in Rajasthan hovers at 0.5% of the total number of authentications in the state. In 2017 too, the authentication numbers remained at 0.5%. The percentage of children linked to Aadhaar authentication shows a slight decrease in 2018 at 0.48% (Table 1).

Table 1. Total number of times children linked to Aadhaar authentication in Rajasthan.

Year	2016	2017	2018	2019 (Jan-May)
Total Aadhaar Authenticated Transactions	98,244,340	127,119,809	142,456,807	53,969,051
Children Aadhaar Authenticated Transactions	498,783	6,42,880	687,683	302,266
Percentage of Children Aadhaar Authenticated Transactions	0.5%	0.5%	0.48%	0.56%

Table 2. Age distribution of children linked to Aadhaar authenticated transactions in Rajasthan.

Year Age in Years	2016	2017	2018	2019 (Jan–May)
1	36	44	105	146
2	148	160	496	477
3	709	972	2260	1548
4	7043	7146	8406	4023
5	13,275	11,047	12,258	5774
6	31,587	35,535	36,488	16,129
7	24,123	25,612	27,996	12,844
8	27,261	30,661	34,221	15,716
9	29,225	36,886	41,834	18,997
10	32,753	43,545	48,705	21,950
11	37,758	51,785	56,741	25,199
12	40,877	56,840	61,648	26,902
13	44,593	61,086	65,440	28,341
14	49,157	67,134	70,507	30,403
15	51,154	69,199	72,111	30,752
16	52,818	70,586	72,371	30,878
17	56,268	74,644	76,098	32,189
Total	498,785	642,882	687,685	302,268

Question 2: What is the age distribution of children linked to Aadhaar authenticated transactions?

As seen in Table 2, the number of children linked to Aadhaar authenticated transactions in the PDS increases with the age group they belong to, especially from age 10 onwards with the 17 years' age group showing the most number of transactions. There is a significant jump in the number of children authenticating from the 1–4 age to the 5–6 age range. This may be because children's biometrics can be enrolled in the Aadhaar database from age five onwards. Interestingly, six-year-olds appear to be linked more to Aadhaar authentications than seven and eight year olds (Table 2).

Question 3: What categories of ration cards are most linked to children's Aadhaar authenticated transactions?

As seen in Table 3, children in the APL ration cards record the most number of Aadhaar authentications in the state. This is not surprising since APL is the majority category in the PDS. However, when looking at percentages, children linked to Antyodaya households who are classified as the poorest households and the State BPL Households show the highest percentage of Aadhaar-linked authentications in the overall state figures. Both Antyodaya and State BPL categories show similar percentages ranging from 12.45% in 2016 rising to 18.58% by 2018. Children linked to Above Poverty Level households show the least percentage of authentications ranging from 1.93% in 2016 to 1.47% in 2018 (Table 3).

Question 4: What is the gender distribution of children linked to Aadhaar authentications?

Overall, in Rajasthan state, male children are linked to Aadhaar authentications more than female children. No major difference was found when analysing gender distribution within different categories of ration cards.

Table 3. Ration card category distribution of children linked to Aadhaar authentication in Rajasthan.

Year Ration Card Category	2016	2017	2018	2019 (Jan–May)
Antyodaya (Poorest Households) as on July 2023	635,459	635,459	635,459	635,459
Antyodaya – Children Linked Aadhaar Authentication	79,134	107,326	118,122	52,542
Percentage of Children Linked to Aadhaar Authentication	12.45%	16.88%	18.58%	8.26%
State Below Poverty Line Households as on July 2023	57,033	57,033	57,033	57,033
State BPL – Children Linked Aadhaar Authentication	71,651	94,718	103,445	45,782
Percentage of Children Linked to Aadhaar Authentication	12.56%	16.60%	18.13%	8.02%
Below Poverty Line Households Households as on July 2023	2,228,699	2,228,699	2,228,699	2,228,699
BPL – Children Linked Aadhaar Authentications	152,641	192,968	202,595	88,228
Percentage of Children Linked to Aadhaar Authentication	6.84%	8.65%	9.09%	3.95%
Others Households as on July 2023	17,774,260	17,774,260	17,774,260	17,774,260
Above Poverty Line Children Linked Aadhaar Authentications	194,400	246,179	261,514	114,809
Percentage of Children Linked to Aadhaar Authentication	1.93%	1.38%	1.47%	0.64%

Question 5: What are the kinship patterns with the head of household of children linked to Aadhaar authentication?

On the ration card, members of a household are identified by their relationship to the head of the household. According to the NFSA (2013) the eldest woman who is not less than 18 years of age, in every eligible household, shall be head of the household on the ration card. In the absence of an eligible female member, the eldest male of the household is designated as head of household until a female member attains 18 years of age. While the data I obtained shows the kinship relations of children with the head of the household, it does not reveal who is the head of the household. Nevertheless, the data showed 50 unique kinship relations associated with children linked to Aadhaar authentications. However, several of these relationships appear to be errors by data entry operators e.g., 'Great grandfather', 'Father in law', 'Grand mother', etc. As child marriages are prevalent in the state, the categories of 'Wife' and 'Husband' are plausible as children may be married by 17 years of age. Since state officials were not responsive to questions on how the varied kinship relations appearing in the data could be interpreted, a study on how beneficiary households represent themselves and the children in their families on ration cards is required as future work.

The kinship category with the highest number of Aadhaar-linked authentications was 'Child'. Consistent with my fieldwork data, this was followed by 'Grand Son' and 'Grand Daughter'. The next commonly found category was 'Wife' and 'Self', which could possibly mean that children are appearing as heads of households if they are married. The other two popular categories were 'Brother' followed by 'Sister'. Owing to space constraints, only the top 15 kinship categories for each year are presented in Table 4. The other categories not represented in the table include relations such as 'Son in law', 'Aunts', 'Great grand parents', 'Father/Mother of Child's Spouse', 'Wife of Husband's Younger/Older Brother', etc.

Question 6: Which districts in Rajasthan show the most number of Aadhaar authentications linked to children?

Table 4. Top 15 kinship relations of children (below 17) linked Aadhaar authenticated transactions in Rajasthan.

No.	Year Relationship	2016	Relationship	2017	Relationship	2018	Relationship	2019 (Jan– May)
1	Child	272,583	Child	335,678	Child	351,698	Child	152,514
2	Grand Son	81,796	Grand Son	110,321	Grand Son	122,536	Grand Son	55,164
3	Grand Daughter	68,725	Grand Daughter	90,976	Grand Daughter	102,321	Grand Daughter	46,268
4	Self	14,965	Wife	20,475	Wife	21,043	Wife	8850
5	Wife	14,929	Self	18,784	Self	17,653	Self	7276
6	Other	10,613	Other	15,207	Other	16,291	Other	7273
7	Brother	6614	Brother	10,222	Brother	11,243	Brother	4812
8	Sister	5689	Sister	8885	Sister	9235	Sister	4039
9	Nephew (Brother's Son)	4925	Nephew (Brother's Son)	7524	Nephew (Brother's Son)	8714	Nephew (Brother's Son)	3950
10	Daughter in Law	3903	Niece (Brother's Daughter)	5657	Niece (Brother's Daughter)	6167	Niece (Brother's Daughter)	2863
11	Niece (Brother's Daughter)	3747	Daughter in Law	5263	Daughter in Law	5667	Daughter in Law	2550
12	Niece (Sister's Daughter)	2848	Niece (Sister's Daughter)	3847	Niece (Sister's Daughter)	4463	Niece (Sister's Daughter)	2008
13	Nephew (Sister's Son)	2567	Nephew (Sister's Son)	3367	Nephew (Sister's Son)	3658	Nephew (Sister's Son)	1656
14	Mother	1601	Mother	1874	Mother	1700	Mother	662
15	Husband	725	Not Available	1086	Not Available	1106	Husband	492

Udaipur district consistently logs the highest number of authentications linked to children through the years and Jaisalmer district logged the least number of authentications.

Question 7: Which months show the most number of Aadhaar authentications linked to children?

There was no discernible pattern observed and the top months for children-linked authentication varied every year.

Question 8: What is the weekday/weekend distribution of Aadhaar authentications linked to children?

The figures for the weekday/weekend distribution shared by the state were difficult to interpret. In some instances, the authentication figures against a particular id were as high as 300. The state officials too could not adequately explain the figures and no definite conclusion could be drawn from the data for this paper.

Discussion

The purpose of this paper is to spotlight children's care work in the biometric welfare state. Owing to their youthful bodies that pass biometric recognition more easily and

the flexibility of their time, children become essential resources for households when adults are unable to fulfil biometric responsibilities because of failing fingers and lack of time. As the findings show, children belonging to the poorest households i.e., holding Antyodaya and State BPL cards account for the most Aadhaar-linked authentications in the PDS.

Together, children from these two ration card categories accounted for 21.77% Aadhaar-linked transactions in 2016, rising to 29.17% transactions in 2017 and 31.99% transactions in 2018. This is in contrast to children from the APL households who accounted for 1.93% Aadhaar-linked authentications in 2016, 1.38% in 2017, and 1.47% in 2018. Additionally, children are authenticating on behalf of adults other than their parents with grandsons and granddaughters emerging as the second and third most frequent relationship that children have with heads of households.

A common response that I receive from state bureaucrats and technologists building biometric infrastructures, is that I am reading too much into children performing fingerprint authentication. Given that children (including all of us as children) contribute to household chores, why should their participation in the biometric authentication process be viewed differently?

First, as discussed in Mudliar (2020a), village school teachers are sharply critical about PDS fingerprint authentication impacting attendance as children regularly skip school for it, which is unlike an occasional absence for a family errand. Second, it is the children from the poorest families that are logging the highest number of Aadhaar-linked authentications. Therefore, children already marginalized by poverty are likely bearing more responsibility to ensure food security for their families in ways that could compromise their future life prospects. Third, the growing presence of children linked to Aadhaar authentication as seen in the data, is yet another challenge to the faith invested in the body as a seamless, stable, reliable, and convenient identity marker that propels the argument for biometric infrastructures.

The Poor Child as the 'Adarsh Biometric Balak' or the Ideal Biometric Child

The project of nation building has long recruited children as social agents to embody and illustrate good citizenship behaviour. In post-independence India, calendar art and posters depicting babies and children as icons were popular for the range of roles bestowed on them varying from 'God-baby', 'Welcome-baby', 'Citizen-baby', and 'Hero-baby' (Uberoi, 2006). These baby and child icons were usually fair-skinned, innocent, androgynous, and represented the middle-class parental aspirations for prosperity along with goals for nation building. They would appear in a range of professional roles such as doctors, engineers, farmers, and soldiers; contributing to the building of a strong, technocratic, and secular nation state (Jain, 2007; Uberoi, 2006).

Specific to the icon of the male child as a model child-citizen, different versions of the 'Ideal Boy – Good Habits' or 'Adarsh Balak' (in Hindi) posters, commissioned by the government, were popular in school classrooms in the 1960s as part of a range of educational charts that offered guidance on desired moral and social behaviour. In the poster, the 'Ideal Boy' embodies stellar qualities that include saluting his parents, being

attentive in school, participating in social activities, and taking lost children to the police station (Rao et al., 2001).

The 'Adarsh Balak' made a comeback on social media circa 2014 and achieved viral fame when visual artist Priyesh Trivedi parodied the original 'Ideal Boy' through the 'Adarsh Balak' Facebook page. Subverting the ideal modern citizen child in the original posters, the Adarsh Balak in one of Trivedi's early posters was now a marijuana smoking vandal, attacking the television set that held his parents in thrall. While Trivedi was soon a part of lists such as the 'Forbes 30 under 30' for his work (Banerjee, 2017), the Adarsh Balak parodies began circulating as memes propelled by several anonymous creators that served as a commentary on contemporary middle-class youth culture in India and their anxieties (Doron, 2016).

Responding to the mandatory nature of Aadhaar in India, one meme parodying the 'Adarsh Balak' as the 'Aadhaar Balak' or the 'Aadhaar Child' showed the middle-class 'Ideal Boy' as a child bereft of privacy. Instead, he was now preaching the Aadhaar gospel and using it to get educational scholarships, healthcare, PDS, logging temple visits on the Aadhaar server, authenticating Tinder matches, and reporting those without Aadhaar to the police (Hindustan Times, 2017) (Figure 1).

Doron (2016) notes that the 'Adarsh Balak' memes are evidence of a vibrant public sphere in India that span social media sites and the mainstream national and international media who reported on the memes. However, while the 'Aadhaar Balak' represents the middle-class youth expressions that reflexively mock and contest the all-pervasive linking of everyday life to Aadhaar, the circumstances of poor children as the 'Adarsh Balaks' whose bodies are indispensable in ensuring food security for the family is neither discussed nor represented in the public sphere through memes or news media. Indeed, the invisibility of children from the poorest households who fulfil the state's biometric demands, is in sharp contrast to the visibility of the middle-class male child as the 'Adarsh Balak' who contributes to nation building by cultivating good citizenship habits and displaying obedience to parents and authority.

Representing the children from the poorest households as the 'Adarsh Biometric Balak' or the 'Ideal Biometric Child' thus calls for what Lindén and Lydahl (2021) term a double vision (Haraway, 1988) of care that is positioned to critically examine practices from multiple vantage points. Therefore, while ethnographic field work revealed the presence of children performing biometric duties for their families, the RTI data from the state, spotlights that it is the children from the poorest families who are disproportionately linked to Aadhaar authentications for food security. Making visible the 'Adarsh Biometric Balak' thus answers questions of 'Who cares?' 'What for?' 'Why do "we" care?' that Puig de la Bellacasa (2011) extends to Star's question of cui bono (who benefits?).

Drawing on Puig de la Bellacasa (2011), the 'Adarsh Biometric Balak' is thus an attempt to engage with the acts of care that poor children regularly perform every month for their families with their bodies and time. Adding to the hierarchies of gender, race, and class that influence and shape the practice of care through asymmetries of power and privilege, this paper casts light on the darker side of care (Martin et al., 2015) to show how biometric regimes of welfare intersect in non-innocent ways with the bodies and the time of children living in poverty to enable the functioning of the welfare agenda itself. Normalizing the care practices of poor children who fulfil biometric
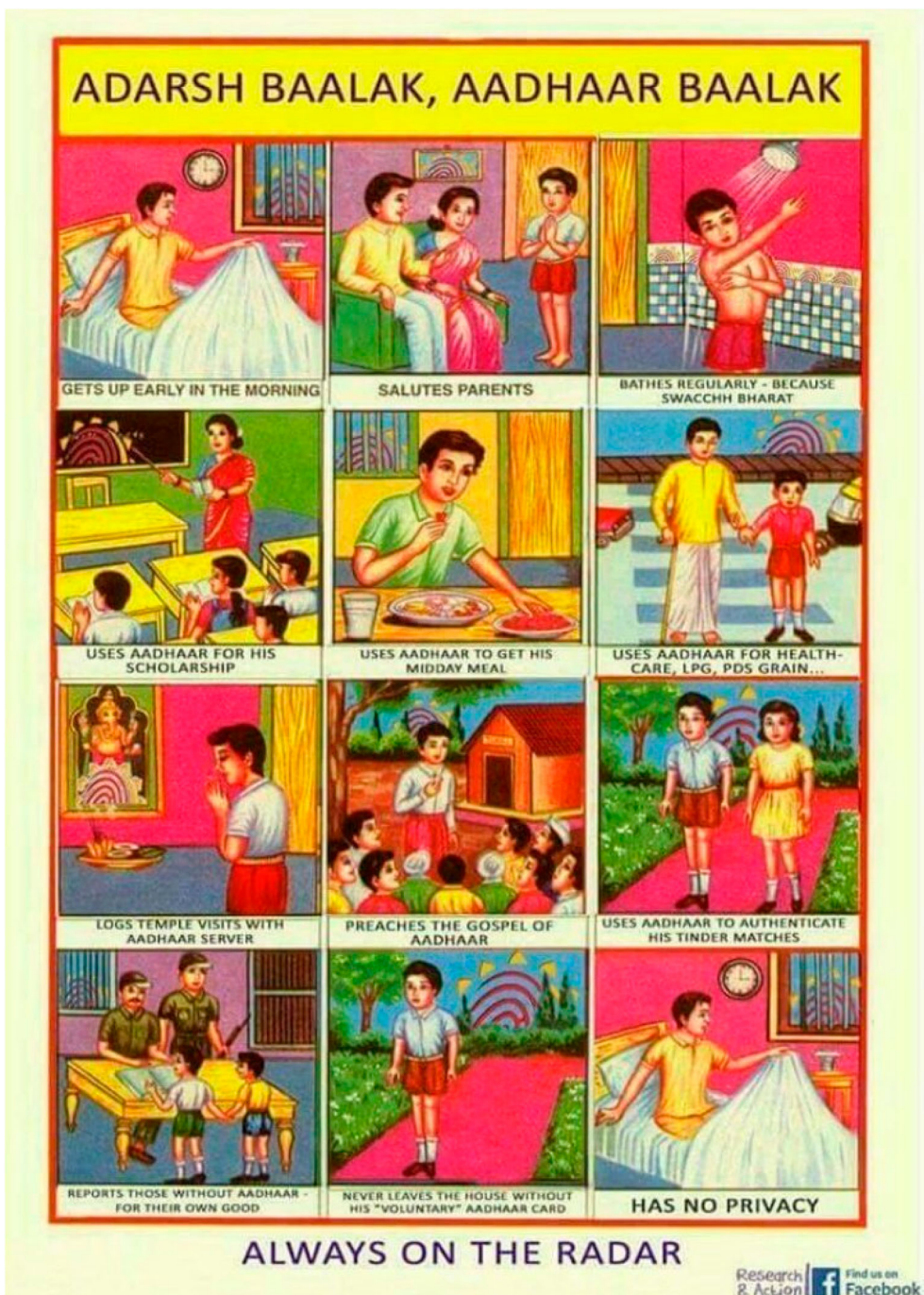
Figure 1. Jessica Puduserry for Research and Action Facebook page.

responsibilities as part of regular housework that all children participate in, minimizes and makes invisible how poverty asserts itself through children and the implications of their work for themselves, their families, and the biometric welfare state. As Star and

Strauss (1999) observe, no work is inherently visible or invisible, but it is through nego-tiations and context that understandings and definitions of work emerge. They show how work can become invisible when people are denied their personhood. Therefore, ignor-ing the question of why and which children are most likely to perform biometric duties for their families, obscures how mandatory biometric rituals can intersect with poverty, propelling children to contribute in the achievement of welfare goals.

Representing the 'Adarsh Biometric Balak' is to generate care (Puig de la Bellacasa, 2011) for the care work of poor children who do not have access to popular modes of articulation such as the 'Adarsh Balak' viral memes to represent themselves and their biometric duties. It is to expand the politics of the public sphere which is limited to middle-class concerns of the 'Adarsh Balak' who even while he reflexively postures on Aadhaar and his loss of privacy, is still able to use Aadhaar to get his scholarship and go to school.

In earlier work, I interpreted the biometric responsibilities that children inherit from their adults through Sen's (2009) discussion of the Sanskrit terms *niti* and *nyaya* which both mean justice in differing ways (Mudliar, 2020a). Comparing discussions of justice with care, Tronto (1993) traces the traditional hostility towards integrating notions of care with justice since care is perceived as specific, feminine, compassionate acts, while justice has assumed a loftier status of being concerned with universal acts of rationality. Tronto argues that conceptions of justice and care are incomplete without one another. Their compatibility is essential and desirable by approaching human relationships as interdependent practices and activities that can inform and alter what is accepted as rational.

The biometric welfare state's evaluation of how successful it is in delivering care to its citizens is based on the rationality of metrics such as the efficiency of biometric infra-structures in processing large number of authentications and the knowledge it generates to deepen transparency for the state in knowing its citizens and tracking the delivery of benefits to them. The state posits these measures as central to good citizenship behaviour that is built on the principles of digitization and data to make itself stronger and conse-quently finds itself disregarding the conditions in which data is generated for the state (Mudliar, 2021).

Acknowledging and centring the care work that its poorer child citizens engage in to fulfil the state's need for data is essential for the state to revalue what counts as rational justice in its delivery of welfare to citizens.

Conclusion

Motivated by the literature on care, care-ful work, and response-ability, the paper spotlights poor children's care work that is essential for the biometric state to function and fulfil its welfare claims. Biometric infrastructures and its datafied practices have been critiqued as technocolonialism for reproducing inequalities and power asymmetries that contribute to colonial legacies of discrimination that lead to more humanitarian crises (Madianou, 2019a; 2019b) and sit contrary to the purpose of inclusive welfare. This paper urges attention in locating how the most marginalized children may be affected in these crises caused by a commitment to biometric modes of administering welfare.

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