Chapter Five

Social Groups and Hegemony

The previous chapters outlined the contours of backwardness and the theoretical frame through which we can study it. We analysed how unfree labour relations lie at the very core of caste and gender exploitation in agrarian systems. The previous chapter on modes of extraction helped in understanding the different mechanisms of surplus extraction. The system of castes in Indian agrarian structures binds the extractor and the exploited in a hierarchy of identities as well. This is what we have termed patriarchal caste-feudalism. Historically in zamindari areas the landlords have also been the dominant castes say bhumihars, brahmins, jats. Landless agricultural labour, small peasants have typically been the lower castes e.g. bhuyia, mushahars. Moneylenders in ryotwari areas have been the dominant patels, patwaris. Also the dominant groups have control over various arms of the state/sarkar say in district administration, block administration, forest officials, and police. Generally we can see a pattern where dominant social groups retain their hegemony through the categories of class and caste. Thus patriarchal caste-feudalism leads us to study the mechanism through which these socially constructed categories perpetuate backwardness in agrarian systems. To grasp the role of social groups we use the concept of hegemony. In the construction and maintenance of norms, such as is the case in Indian agrarian systems, the dual mechanism of coercion and consent operate.

The abstract theorizations on the origin of castes help us in discerning its rules of governance – what is the necessary condition for existence of such a system. Caste rules about endogamy, food, contact - basically rules which keep the hierarchical difference between different castes and these rules are maintained as the result of members of certain social groups not deviating from internal sanctions. The stricter marker for

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1 See Gramsci (1996) for the concept of hegemony.
differentiation that orthodox brahminism tried was to tie caste to occupation i.e. the varnashram dharm. A lot of theorization has been done on varnashram dharm or the principle of occupational specialization in caste systems. But questions were raised by scholars about the ahistoric nature of such an assumption – there are some occupations which have evolved with modernization along with some marginal occupations being wiped out. Also, some theorists like Dumont have looked at caste as a hierarchical system based on an index of purity pollution alone without getting into the economic relations of domination. In the third chapter we have established how unfree labour is the structural basis of the caste system. Modes of Extraction (the previous chapter) demonstrates the triadic relations of power which uphold caste dominance. The list of violations (Thorat, 2007, reproduced in the previous chapter) amply demonstrate that caste dominance involves dominance in every sphere – economic, social, cultural, and political. There is a history of stigmatization attached to various occupations which leads to a status ranking of different workers. We construct a model of caste governance in line with the model of community governance of Samuel Bowles and Herbert Gintis, where they show how norms evolve amongst communities.

**Model:**

**Caste as a Partition device:** other things remaining equal do some social groups get a worser deal. Question of fairness: Whether on an average, a lower class-upper caste is *better off* than a lower class-caste? We shall come back to the question of fairness comprehensively in Chapter Eight (Developmentalism in a Democracy). I discuss the question of fairness in the context of the debate on reservations and the creamy layer and who is to be considered backward.

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2 See Habib (1987) on stigmatization, Unfree labour as structural basis (see Phule on Gulamgiri/slavery),
On the question of Sanctioning

Let there be $n$ Members in a social group $\theta$. Each member has two strategies: Defect (D), Confirm (C). By this we mean socially constructed norms are either followed (Confirm strategy) or not adhered to (Defect) by individual members of any particular social groups. Given the institution of caste, any social group $\theta$ does not exist in isolation. The system of castes is both hierarchical and differentiative. This would mean that there is a hierarchy that is sought to be maintained by ‘higher’/’purer’ (upper caste) groups. Also important is the notion of differentiation that particular castes follow in marking/maintaining their distinct identities from other castes. This process of differentiation can be more horizontal than vertical. Thus lower castes may also maintain strict differentiation amongst each other, like upper caste groups.

Each distinct social group can be assigned a distinct value $\theta$. Lets say lower caste groups are denoted by $\theta$ and upper caste groups by $\bar{\theta}$. We can imagine the caste system as a continuum of types $[\theta, \bar{\theta}]$. Thus to maintain hierarchy there is a cost imposed by higher caste groups on lower caste groups for any deviation to norms/caste rules. E.g. drinking water from village tank, access to temples, marriage to higher caste/lower caste esp if lower caste man marries upper caste woman. So the lower caste groups $\theta$ face a higher cost for deviation. So there is an external cost $C(\theta)$ which the social group as a whole/individuals bears for deviations of well defined caste rules. Generally we can say this cost varies inversely with caste status. This external cost is crucial in explaining why upper caste hegemony persists to this day. The external cost imposed to maintain hierarchy affects the internal dynamics of all groups depending on their location in the

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4 Sanctioning can be of two types internal and external. **Internal sanction**-The example of the plough not being allowed to be held for brahmins. Sanctioning from inside (see Ackerlof for details) where the question is when does it pay to deviate/break norm-rule? The pressure of social groups on individual members are based on norms. Also caste-rules are common knowledge to individual members of that caste and also for other castes. **External sanction**: here question of hierarchy comes in along with the notion of subservience (often gestures, bowing, head drooped, breast not covered etc.) untouchability, other forms of denial of access by legitimization, use of sanctions from above, i.e. by dominant castes. Issues like status of occupation, work ranking who does what and is paid what.
Social groups and hegemony

Social matrix would mean that there are a set of different parameters and scales which go to define the location of every social group unlike a one dimensional ranking alone. Dumont's influence has led many scholars of caste to mechanically rank groups by a simple index of purity/pollution. Such a ranking is too simplistic and often misleading. We shall come back to this issue of social matrix and ranking in greater detail in the last chapter where we evolve a multi-dimensional criterion of backwardness to evaluate social groups.

The Coercion Game:

Essentially dominant castes maintain their hegemony by coercion if dominated castes transgress certain norms — these norms range broadly from access to schools, to marriage rules, to use of water tanks, entry to temples etc. Repeated interaction happens in agrarian systems where different caste norms about hierarchy/rank/order are regularly played out. So we imagine that 2 players from different castes are playing this game. One may consider two strategies that each player can take. One is the tit-for-tat strategy that is co-operate in first round and then do what other play does subsequently. Thus if i co-operates with j in first round and j defects, then i defects from next round. The other strategy is to defect.

So, lower caste cost of violating norms (i.e. defecting) is \( C(\theta) \) and upper caste cost of defecting is \( C(\bar{\theta}) \). Given society we can assume \( C(\theta) > C(\bar{\theta}) \) on an average.

Also lower caste gain of defect is \( x_\theta \) and upper caste gain of defect is \( x_{\bar{\theta}} \). Again we can assume given society \( x_\theta < x_{\bar{\theta}} \) on an average.

Similarly lower caste gain by co-operating is say \( g_\theta \) and upper caste gain for the same strategy is \( g_{\bar{\theta}} \). Thus we can represent this interaction as below.

We can simplify this by further assuming that the individual benefits of co-operate (i.e. abiding by norms) are the same say \( g \). That is by abiding by norms indiv members of any
caste benefit and if we say that $g > x_{\theta} - C(\theta)$, where $\theta \in [\underline{\theta}, \overline{\theta}]$, then we get Tit-for-Tat as the dominant strategy. This is especially true for the lower castes (add atrocity list).

Lower caste bears the brunt of the cost for violating caste rules defined by ones who have higher status. This can turn around though and has if we see the history of agrarian violence in our country where upper castes have been at the receiving end.

We use this result to show why external sanctions hold.

Consent game:

Hegemony also consists of consent being manufactured. So we turn to the notion of difference being taken into account it becomes clear why groups impose an internal cost on interactions between its own members to maintain group norms. We can imagine interactions between members of any social group $\theta$, as a prisoner's dilemma game played between any pair $i$ and $j$. So let us say that of the $n$ members in a social group, $m$ decide to deviate. Then the rest i.e. $(n-m)$ impose an internal cost on the deviants which we denote as $(n-m).c$. It is easy to see from this construction of the internal cost function that if all members decide to deviate/change traditionally defined norms then the internal cost becomes zero, i.e. it becomes costless internally to defect $= (n-n).c = 0$. Internally because the other external cost $C(\theta)$ may still be have to be borne even if all the members decide to defy a certain rule. E.g. if all dalits decide to walk into a temple they have to face the wrath of upper castes. In a way sufficient space is allowed in this model to accommodate changes in group behaviour – we look at this in more details towards the end of the chapter.

Now the internal cost borne by the deviant is certain – outcasting a member or losing membership to the social group

$$\text{Social gain if all defect} = \sum_{i=1}^{n} x_i$$
Indiv. Gain of defect = \( \sum_{i=1}^{n} x_i / n \)

Social gain if all co-operate = \( \sum_{i=1}^{n} g_i \)

Indiv. Gain by co-operating = \( \sum_{i=1}^{n} g_i / n \). So, if you co-operate and the other player deviates your gain is \( \sum_{i=1}^{n} g_i / n - 1 \). Of course this assumes that the other \((n-2)\) players also co-operate. Thus the group compensates you if other player deviates – can be thought of as member’s social security of belonging to a particular group. But this assumption that all others co-operate can be too simplistic. So we amend this by assuming that among the set of \( n \) players there is a set say \( S_C \) who co-operate and a set \( S_D \) who deviate. So we have, \( S_C \cup S_D = \{1,2,\ldots,n\} \)

If \( i \) and \( j \) play a game then, of the remaining \((n-2)\) people in the group some co-operate and some defect. Lets say, \( k \) co-operate. So \((n-2-k)\) deviate. Now say in a game between \( i \) and \( j \), we have \( i \) co-operating and \( j \) defecting. So there are \((k+1)\) players who co-operate and \((n-2-k+1)\), i.e. \( n-(k+1) \) who deviate.
For simplicity, let us assume for the moment (we shall amend this assumption later in the chapter) that the individual gains from co-operation as strategy gives equivalent benefit, i.e. \[ \frac{\sum_{i \in S_C} g_i}{k+2} = \frac{\sum_{i \in S_C} g_i}{k+1} = g(\text{say}). \]
Also let us similarly take the individual gains from defection as strategy yields equivalent benefit, i.e. $\frac{\sum_{i \in N \setminus \{p\}} x_i}{n-k-1} = \frac{\sum_{i \in N \setminus \{p\}} x_i}{n-k} = x(say)$

This allows us to rewrite the game simply as below:

<table>
<thead>
<tr>
<th></th>
<th>(C)</th>
<th>(D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(C)</td>
<td>(g, g)</td>
<td>(g, x-[n-(k+1)]c - C(\theta))</td>
</tr>
<tr>
<td>(D)</td>
<td>(x-[n-(k+1)]c - C(\theta), g)</td>
<td>(x-[n-k]c - C(\theta), x-[n-k]c - C(\theta))</td>
</tr>
</tbody>
</table>

Or we can rewrite the above as:

<table>
<thead>
<tr>
<th></th>
<th>(C)</th>
<th>(D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(C)</td>
<td>(g, g)</td>
<td>(g, a)</td>
</tr>
<tr>
<td>(D)</td>
<td>(a, g)</td>
<td>(b, b)</td>
</tr>
</tbody>
</table>

There can be three possible cases here:

Subcase I: \(g > x-[n-(k+1)]c - C(\theta)\); \(\text{which implies that } g \text{ is also greater than } x-[n-k]c - C(\theta)\). \(\text{In this case when the benefit of co-operating individually outweighs the benefit of deviation we get } \{C, C\} \text{ as the dominant strategy.}\)
Subcase II: $g < x - [n - k]c - C(\theta)$; In this case when the benefit of deviating individually outweighs the benefit of following norms we get $\{D,D\}$ as the dominant strategy.

Subcase III: $x - [n - (k + 1)]c - C(\theta) > g > x - [n - k]c - C(\theta)$; $\{C,D\}$ and $\{D,C\}$ can both be equilibria.

We check for MSNE:

For player i, let the probability of Co-operating is $p$ and Defecting is $(1-p)$. Similarly for player j, let the probability of Co-operating is $q$ and Defecting is $(1-q)$. We can show that $(p^*,q^*)$ where $p^* = \frac{g - b}{a - b} = q^*$ is a Mixed Strategy Nash Equilibrium. This means all outcomes can occur with equal probability. Of course which of the outcomes occur depend on the relative strengths of $g, b$ and $a$.

The existence of Mixed Strategy Nash Equilibrium makes the model closer to reality. At certain points of time in history, caste rules have been broken by members of a certain group. This of course has to do with a lot of other factors which weaken the stranglehold of some norms when members find it beneficial to defect. Thus caste rules about migration and occupation for upper caste or middle castes have not been strictly adhered to with the advent of modernity. Let us take an example of both. Migration across seven seas was strictly prohibited but with more job opportunities this rule slowly was less and less enforced. Also lack of employment opportunities in villages made people migrate to cities where given the structure caste rules about food and co-habitation could not be strictly adhered to.

Now we assume differently, i.e. as follows
\[
\alpha = \sum_{i \in N} g_i / (k + 2)
\]

\[
\beta = \sum_{i \in N} g_i / (k + 1)
\]

\[
\delta = \sum_{i \in N} x_i / (n - k - 1) - [n - (k + 1)]c - C(\theta)
\]

\[
\gamma = \sum_{i \in N} x_i / (n - k) - [n - k]c - C(\theta)
\]

Now, we can assume that \(\alpha > \beta; \alpha > \delta\), so we get \(2\alpha > \delta + \beta\). This ensures social optimality, i.e. no alternating roles of defector and co-operator. So we can rewrite the game as below.

<table>
<thead>
<tr>
<th></th>
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<th>(C)</th>
<th>(D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(C)</td>
<td>(\alpha, \alpha)</td>
<td>(\beta, \delta)</td>
<td></td>
</tr>
<tr>
<td>(D)</td>
<td>(\delta, \beta)</td>
<td>(\gamma, \gamma)</td>
<td></td>
</tr>
</tbody>
</table>

Now we can have two distinct possibilities:

I] if \(\beta > \gamma\) then only \(\{C, C\}\) is PSNE.

II] if \(\alpha > \gamma\) then again we have two possibilities.

A] If \(\alpha = \gamma\), then \(\beta < \gamma\). So we have 2 PSNE \(\{C, C\}\) and \(\{D, D\}\)

B] if \(\alpha > \gamma\), then \(\beta > \gamma\) and we are back to case[I] above.

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On the question of traits, differential replication or hegemony (i.e. perpetuation of hegemonic relations):

Hegemony here consists of two parts – Consent and Coercion. The differential replication of ‘successful traits’ is the part dealing with conforming to established norms – Consent manufacturing. Sanskritisation is an example. The other part of differential replication is the exercise of Coercive power by dominant groups, which is often mistakenly looked upon by using the logic of Social Darwinism – i.e. the spontaneous order or naturalness of selection or fitness or evolutionary stable strategies. Let there be two mutually exclusive traits say conforming to caste rules (call it C) and not obeying/defecting/deviant (call it D). The Transmission mechanism or perpetuation of hegemonic relations works through a process of monotonic updating of payoffs; i.e. traits that are ‘successful’ - which result in above-average payoffs are adopted by others. Suppose individuals of the same social group with n members are randomly paired to interact in a symmetrical two-person game – payoffs denoted by $\pi(C, D)$ – playing trait C against D-playing agent. Let there be a population frequency $p$ for the trait C or $p$ is the probability with which a person with trait C meets another with same trait. Also the probability of a C-person meeting a D-person is $(1-p)$.

The expected payoffs are given as

$$b_C(p) = p\pi(C, C) + (1-p) \pi(C, D)$$

$$b_D(p) = p\pi(D, C) + (1-p) \pi(D, D) \quad \ldots \ldots \text{[equation 1]}$$

At the beginning of each period, some fraction of the population updates, i.e. $\lambda \in (0,1]$. Now suppose that the conformist trait (C-trait) and a deviant individual (D-trait) had payoffs $B_C$ and $B_D$ in the last period.

Note: the payoffs $B_C$ and $B_D$ generally not equal to $b_C$ and $b_D$ – reason could be matching noises.
The Switch equation: let switch occur (for C-person) with probability \( s(B_D - B_C) \), where \( s \) is the coefficient of switching and is a positive constant reflecting greater effect on switching if payoff difference is large. So the person with C-trait switches if \( B_D > B_C \). Similarly, no switch if \( B_D \leq B_C \). Also \( s \) is scaled in a way so that the probability of switching varies over the unit interval.

Let \( \rho_{D>C} = 1; \) if payoff of the D-player exceeds that of the C-player

\[
\rho_{D>C} = \begin{cases} 
1 & \text{if payoff of the D-player exceeds that of the C-player} \\
0 & \text{otherwise.}
\end{cases}
\]

Then in any period there will be \( p \) C-persons, and a fraction of those, i.e. \( \lambda \), who can update. Now each of these \( \lambda p \) C-players will be paired with d-person with probability \( (1-p) \), and with probability \( \rho_{D>C} s(b_D - b_C) \) the information they acquire about payoffs will make them switch. On the other side there will be some D-players who will encounter C-players and will convert to C-trait. Since the population \( n \) can be assumed to be large, we can write the Expected Population Frequency with C-trait in any period as

\[
p' = p - \lambda p (1-p) \rho_{D>C} s(b_D - b_C) + \lambda p (1-p)(1-\rho_{D>C}) s(b_D - b_C) \ldots \ldots \text{[equation 2]}
\]

or, \( \Delta p = p' - p = \lambda p (1-p) s(b_D - b_C) \ldots \ldots \text{[equation 3]}

Note:

1. The term \( p (1-p) \) in eq.3 is the variance of the trait which measures the number of C-persons paired with D-persons. Therefore extreme values of \( p \) will make the pairing unlikely. More homogenous the population the slower will be the ‘evolutionary’ process. The variance is max. for \( p = 1/2 \); so an evenly distributed population will maximize rate of change of \( p \), ceteris paribus.

2. The term \( \lambda s \{b_D(p) - b_C(p)\} \) in eq.3 captures the effect of \( p \) on payoffs and updating behaviour. Therefore larger values of \( \lambda \) (i.e. a larger fraction updating) and larger values of \( s \) (i.e. individual switching more responsive to differences in payoffs) will speed up the dynamic process when \( b_C \neq b_D \)

We write the population average payoff as

\[
\bar{b} = p b_C + (1-p) b_D \ldots \ldots \text{[equation 4]}
\]
Thus we can rewrite eq. 3 as \( \Delta p = \lambda ps(bc - \overline{b}) \ldots \) \([\text{equation 3}']\).

The perpetuation of hegemonic relations ('differential replication') will be strong if

- \( \lambda \) is large, i.e. larger fraction updating or copying ‘successful’ traits.
- Payoff difference is large, i.e. \( \{bc - b_D\} \) is large
- \( s \) is large, i.e. response to payoff difference is large.

The two equations 3 and 3' gives a complete description of the one dimensional dynamical system, which is the case for our example. The state space (all possible outcomes) here given there are only two traits will be all the values of that \( p \) may take over the unit interval. So, for every value of \( p \), the replicator equation gives the mapping of \( \Delta p = \Omega(p) \), where \( \Omega \) is the vector field 6.

We find the stationary states, i.e. the states \( p^* \) such that \( \Omega(p^*) = 0 \). Also we check the stability of these states. For stability we define \( \Omega(p^* + \xi) \), where \( \xi \) is an arbitrary small perturbation of \( p \).

From the set of eq. 3 and 3',

We see that \( \Delta p = 0 \), if \( bc(p) - b_D(p) = 0 \) or, \( bc(p) = b_D(p) \) \ldots \([\text{equation 4}]\)

Or, \( p = 0 \) or \( p = 1 \) \{when \( p = 1 \), then \( bc = \overline{b} \)\}.

Therefore for \( p \in (0,1) \); \( \Delta p \) takes the sign of \( bc - b_D \), thus we can see that the payoff is monotonic updating.

Stability properties require that \( d\Delta p/dp < 0 \) – this gives us asymptotic stability 7. So we require:

\[
\frac{db_C}{dp} - \frac{db_D}{dp} > 0
\]

i.e. \( \pi(D,C) - \pi(D,D) - \pi(C,C) + \pi(C,D) > 0 \ldots \) \([\text{equation 5}]\).

Now we go back to our initial game setup to see internal sanctions, i.e consent manufacturing game.

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5 This equation captures the general form of the discrete time replicator dynamic. For more details see Taylor and Jonker (1978), Wiebull (1995), Bowles (2004), Hirsch and Smale (1974).

6 \( \Omega \) defines for each state in the state space, the direction and velocity of change at the state.

7 Asymptotic stability of a stationary state, \( p^* \), means all sufficiently small perturbations will lead back to \( p^* \). This is different from Lyapunov stability – which only requires that all small perturbations in \( p \) will not result in further movements away from \( p^* \). Asymptotic stability is a stronger concept and it obviously implies Lyapunov stability. Our example here requires just asymptotic stability.
The Consent Manufacturing Game: We use this result to show why internal sanctions hold. Players can be two types ‘nice’ and ‘nasty’. A player can pay inspection cost \( c > 0 \) to find out whether other player is nice or nasty. We see the payoff matrix below.

Equilibrium: If all players Defect, then the resulting Nash equilibrium can be called the universal defect equilibrium. But there can be the other two equilibria one in which some players Inspect but no one Trusts and the other in which at least one agent trusts. Both these form what we are calling the Consent Manufacturing Equilibrium.

<table>
<thead>
<tr>
<th></th>
<th>Inspect</th>
<th>Trust</th>
<th>Defect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inspect</td>
<td>( \alpha - c, \alpha - c )</td>
<td>( \alpha - c, \alpha )</td>
<td>( \gamma - c, \gamma )</td>
</tr>
<tr>
<td>Trust</td>
<td>( \alpha, \alpha - c )</td>
<td>( \alpha, \alpha )</td>
<td>( \beta, \delta )</td>
</tr>
<tr>
<td>Defect</td>
<td>( \gamma, \gamma - c )</td>
<td>( \delta, \beta )</td>
<td>( \gamma, \gamma )</td>
</tr>
</tbody>
</table>

Now again we can have two distinct possibilities:

I] if \( \beta > \gamma \) then only \( \{T,T\} \) is PSNE.

II] if \( \alpha \geq \gamma \) then again we have two possibilities.

A] If \( \alpha = \gamma \), then \( \beta < \gamma \). So we have 2 PSNE \( \{T,T\} \) and \( \{D,D\} \)

B] if \( \alpha > \gamma \), then \( \beta > \gamma \) and we are back to case I] above.

We check to see the situation which arises with a positive level of Trust in social groups.

Let the probability that the strategy Inspect is used be \( p_i > 0 \); (non-trust equilibrium)

the probability that the strategy Trust is used be \( p_T > 0 \); (trust equilibrium)

and the probability that the strategy Defect is used be \( (1 - p_i - p_T) > 0 \)

Let’s assume for now that there exists all the three strategies in a Trust equilibrium, i.e. for \( p_T > 0 \). (we shall prove the assumption is true later). By equation 4 we have the equilibrium situation where all the payoffs from different strategies must be equal.
Let \( \pi'(p_I, p_T) \) be the expected payoff to adopting strategy \( i \) (i=Inspect, Trust, Defect). The population composition for our purposes can be described by \( p_I, p_T \).

So we can write:

\[
(p_I + p_T)(\alpha - c) + (1 - p_I - p_T)(\gamma - c) = (p_I + p_T)\alpha + (1 - p_I - p_T)\beta \\
= p_I \gamma + p_T \delta + (1 - p_I - p_T)\gamma 
\]

...... [equations 6,7]

Using 6, we get \( p_I^* + p_T^* = 1 - \frac{c}{\gamma - \beta} 
\)

...... [equation 8], which implies that the fraction of the population adopting Consent Manufacturing Strategies (i.e. Inspect or Trust) has an inverse relation with the cost of information \( c \). Lower the cost of information the higher is the chance of having one of the Consent Manufacturing Strategies. Typically close knit caste groups would have a lower informational cost regarding other caste members.

Also rearranging 8, we get \( (1 - p_I^* - p_T^*) = \frac{c}{\gamma - \beta} \)

...... [equation 9], implying that the frequency of Defect is an increasing function of the inspection cost \( c \).

The equilibrium values

\[
p_I^* = \frac{1}{\delta - \gamma} \left[ (\delta - \alpha)(1 - \frac{c}{\gamma - \beta}) + c \right] 
\]

...... [equation 10]

\[
p_T^* = \frac{1}{\delta - \gamma} \left[ (\alpha - \gamma)(\alpha - \beta)(\frac{c}{\gamma - \beta}) \right] 
\]

......[equation 11]

Hence for a solution to exist with positive levels of Inspect and Trust, i.e. with \( p_I^*, p_T^* > 0 \), we have to have \( c < \gamma - \beta \) from equation 8. Therefore, \( p_T^* > 0 \) requires

\[
c < (\gamma - \beta) \frac{(\alpha - \gamma)}{(\alpha - \beta)} 
\]

...... [equation 12]. This can be shown to be the necessary and sufficient condition for a MSNE with positive level of trust.

Also \( \frac{dp_T^*}{dc} < 0 \), which implies that freq. of Trust is a decreasing function of informational cost.

- Lower informational cost may result in higher probability of trust
- Amount of trusting greater if informational cost lower
- Fraction of defectors varies directly with informational costs.
Now let us take a three player game $i, j$ and $l$. So of the remaining $(n-3)$ members say $k$ co-operate. So we have $(n-3-k)$ who deviate. Now lets say that $i$ co-operates and $j, l$ don’t. therefore $(k+1)$ co-operates and $(n-3+k+2)$ i.e. $n-(k+1)$ deviate.

### Game: Between any $i, j$ and $l$ of group $\theta$

| $i$ | $j, l$ | $C, C$ | $D, D$ | $C, D$ | $D, C$
|-----|--------|--------|--------|--------|--------|
| $C$ |        | $\alpha, \alpha, \alpha$ | $\beta, \delta, \delta$ | $\alpha, \alpha, \delta$ | $\alpha, \delta, \alpha$
| $D$ |        | $\delta, \alpha, \alpha$ | $\gamma, \gamma, \gamma$ | $\alpha, \delta, \delta$ | $\delta, \delta, \alpha$

*If $\beta > \gamma$, then only $\{C, C, C\}$ is PSNE.*

*If $\alpha = \gamma$, again $\{C, C, C\}$ and $\{D, D, D\}$ comes out as PSNE.*

The three person game shows more realistically why members of social groups can adhere to or break norms. The advantage of historically locating the caste system is that it avoids oversimplified notions of caste as a fixed unchanging institution. This game shows again how caste norms can be adhered to or violated.

### Social Groups and Agrarian Dynamism:

The struggle for hierarchy and caste dominance is an intrinsic part of power relations in agrarian systems. Sometimes the reason for backwardness lies in the constant struggle for dominance intrinsic to a hierarchically stratified agrarian system. Theoretically if farm servants, landless labourers were fixed by birth so could the landlords and moneylenders in agrarian systems. Also the service castes or traditional village artisans were fixed by birth and such occupations were often hereditary. Bhuiyas, Mushahars, Paraiyan, Pulaiyan, Pulla are some of the castes who were bonded labourers in the pre-capitalist period. Julahas or weavers traditionally were located quite low in the caste structure of the jajmani system. Bhumihars, Patidars, Rajputs were/are generally dominant castes in agrarian systems. If the caste system remained frozen then the principles of varnashram dharm would still be surviving. However that would completely deny the change in
agrarian relations due to different regimes of accumulation. The process of capitalist restructuring of patriarchal caste-feudalism brought about de-industrialisation (which leads to the demise of traditional artisanry and crafts). Further the changing tenurial systems upset the balance of agrarian power. New castes (often middle castes like Kammas, Jats) became the dominant landholding castes especially around the middle of the last century. Changing patterns of capitalist accumulation often destroy older modes of extraction. More often than not it however preserves and builds on older forms. This restructuring also opens up some avenues for newer groups whose mobility in the hierarchy was strictly restricted before. Newer modes of extraction have emerged with history and the attempt by dominant groups to at least capture the economic sphere has been crucial reason for the rise in wealth and status for the newer dominant castes. Thus the dynamism in Indian agrarian systems (even if it happens at a very slow rate) is conjoined with the struggle for caste dominance.

Conclusion:

I have argued in this chapter that hegemony of certain social groups in Indian agrarian systems crucially determine the contours of backwardness. Caste dominance in all possible spheres relies on the coercive power of the extractors. The mechanism of coercion and maintenance of rank and hierarchy was explained first. What makes a hegemonic system (patriarchal caste-feudalism in our context) survive is the manufacturing of consent among the oppressed. The Gramscian frame of consent and coercion provide an useful framework to study social groups and the game for hegemony. The prisoners dilemma models that I used to demonstrate this clearly clarify this aspect. Norms evolve and are either maintained through coercion or through consent. Any deviation to caste norms is ruthlessly punished. Simultaneously intra-group maintenance of rank and order buttress the coercive mechanism. In terms of the game-theoretic approach that I have used, confirming to caste rules often emerges as the Pure Strategy Nash Equilibrium. The existence of mixed strategies makes this model more realistic in the context of agrarian dynamism. The changing capitalist relations affect the balance of agrarian power. Previously dominated social groups might due to exogenous reasons (like
Abolition of Zamindari or Permanent Settlement) rise to positions of dominance. Caste dominance requires hegemonic control of all spheres. This chapter demonstrates conclusively that social groups and their struggle for hegemony are an intrinsic part of Indian agrarian systems and a persistent reason for its backwardness.