The process of integration: from traditional to non-traditional behaviours. The Indian case.

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Abstract

The aim of this paper is the analysis of the diffusion process towards the study of the transition from traditional to non-traditional family and reproductive behaviours. The data we used are the second Indian National Family Health Survey (NFHS-2) conducted in 1998-99. The methodology we applied is the Boolean Analysis for the definition of the main paths of the behavioural transition taking in consideration the regional level and the structural heterogeneity of the country. We are interested in proving one of the following two hypotheses: *i)* the transition is due to the individual decision in changing behaviours followed by a pressure on the social system, or *ii)* the transition is due to the social decision to determine behavioural changes followed by individual changes. In relation to which one of these two paths is followed by the states there will be an higher or lower individual participation to the change, or using diffusion theory, an higher or lower individual sensitivity to belong new behaviours. Results show that considering individual information about use of contraception, educational level, age at marriage, level of communication between partners, and use of health facilities, the process of integration depends from the level of fertility transition inside each state. Moreover, the social component is the main actor in starting the process of integration.

1. Introduction

India at 0:00 on 1 March 2001 gained 1.027.015.247 of people. India is the second biggest country in the world as well as the second country to cross one billion of people after China. India was the second country by population in 1950 and with the medium variant of World Population prospect of 2000 India will be the biggest populated country in 2050 with more than one billion and half of people. Its population is distributed between 26 highly heterogeneous regions. The growth rate between the last two census (1991-2001) is 23.34%. Between countries contributors to world population growth, India was the second one in 1950-1955 (16%) after China, and it will be the first one in 2000-2005 (21%) as well as in the projections for 2045-2050 (15%). This simple framework gives us an idea of the big demographic power of this country. For

this reason we have decided to consider its population behaviours in relation to fertility and family matters. Even if it is visible a decrease in the fertility level, there is an high heterogeneity between the states and within the same state there is an high heterogeneity in time.

Our study starts from the idea that, the combination of a group of conditions, in time and space, causes many of qualitative changes at micro and macro level [Ragin 1987]. In 1843 John Stuart Mill defined the theory of chemical causation. In this approach changes are the consequence of a series of precondition (or ingredients) that are necessary to observe the change. In the case in which one or more preconditions are missed the event of interest is not visible.

Using this framework we are interested in analysing the complexity of the social event within a socio-cultural context characterized by high levels of heterogeneity like the Indian one. Our main goal is the analysis of the logical path that brings the individual to assume new form of behaviour.

2. Methodology

We suggest referring to the main papers on Boolean analysis [Falment 1976, Van Buggenhaut 1987, Thenus 1998, Janssesns 1995], while in this context we give you just some definitions for a better comprehension of the results.

The methodology we used for our purpose is the Boolean analysis. This methodology let us translate sociological, demographic, psychological research problems into a Boolean framework, and by solving them by applying the axioms and theorems of Boolean algebra. Boolean algebra entails the possibility of introducing a partial order relation between a set of indicators [Janssens, 1995]. The methodology is characterized by two main characteristics: first, the relation between the set of indicators is unidirectional, it means that also if a regression is not forbidden, practically, the regression seems to be an exception to the evolutionary path; second, the process is a gradual process, it means that in the elements enter in the process one by one.

The Boolean analysis is based on the presence/absence of a group of characteristics. The first step consists in the conversion of the information in the binary format. Each individual is characterized by a sequence of 0 and 1 (Boolean expression) that represents the individual propensity towards new behaviours.

The other two Boolean axioms that are fundamental in this approach are the *minimization* and the *implication*. The first principle let define the Boolean expression with the minimum number of terms. The idea is that considering two Boolean expressions, if they differ for one casual condition, producing in both cases the same result, the casual condition that differentiate the two expression can be deleted since it is not relevant. This process can be replicate since we have a subset of Boolean expression with the minimum number of elements on which we cannot repeat the minimization axiom. The number of responses in the subpatterns is called the *length* of the subpatterns. For example, considering three different characteristics *a, b, c* and their complement *a', b', c'* if we are in the condition in which *ab'c'* and *abc'* produce the output F consequently *ac'* is enough in explaining F since the presence or absence of the condition *b* is irrelevant to the output F. The final set of expression is defined *prime implicant*.

The second axiom can be explained introducing the notion of *Ultimate Canonical Projection* (PCU).

Let X be a set of questions *x, n* the dimension of the sample, and R the set of all possible response patterns. Using Flament [1976] theory, we can define R like:

$$R=\{ p_l \mid p_l = \text{response pattern } l \text{ with frequency } f_l\}$$

We can divide the R in two subset: R^* set of patterns with non-zero frequencies and R^0 subset with zero frequencies.

$$R^*=\{ p_l \mid p_l = \text{response pattern } l \text{ with frequency } f_l > 0\}$$
$$R^0=\{ p_l \mid p_l = \text{response pattern } l \text{ with frequency } f_l = 0\}$$

It means that:

$$R = R^* \cup R^0$$
$$\varnothing = R^* \cap R^0$$

Considering these two subsets Flament instead of considering the subset with non-zero frequency based is approach on the R^0 subset called *ultimate canonical projection* (PCU). The PCU can be composed by the combination of the maximum number of

indicators, but the general approach suggest to apply the minimization until having PCU with response subpatterns of length equal two.

Why does the author consider R^0 subset instead of R^*? Let consider *ab'* included in the PCU, it means that inside our sample we cannot see the presence of *a* without seeing *b* too.

It means that $a \rightarrow b$, each person that give the answer *a* give also the answer *b* (Boolean implication).

The theory seems to be quite easy, but once we are working with empirical data the problem is not so simple. In fact, empirical data do not provide so easily the R^0 subset. For each combination of questions, most of the times, we have a variable number of individual characterized by that combination. It could due to data error, lying in answering, etc. In many cases, with real data the subset of interest R^0 is empty. It means that we need a role for the definition of R^0 or, in other words, for the dichotomization of R (dichotomization threshold).

Different researchers have applied different methods of dichotomization for the set R [Flament 1976, Van Buggenhaut 1987, Thenus 1998, Janssesns 1995]. We have decided for Thenus method that consists in ordering the subpatterns of length 2 on the base of their frequency from the smaller to the bigger one. The first combination to enter in the PCU is the one with lowest frequency followed by the next one, and so on until the next combination to be assigned to the PCU would cause the equivalence of two items (equivalence means that in the PCU there is *ab'* and its complement *a'b*). When we find the relation of equivalence the PCU is done (the element that cause the equivalence is out of the PCU). The model's fitting is defined by the percentage of women belonging the final pattern. Thenus's roles have been applied for the states in which the final model fits at least at 65%.

3. The main components of the integration process

The data we used are the Indian National Health Survey 1998/1999 (NFHS-2). NFHS-2 was conducted with financial support from the United States Agency for International Development (USAID), with additional funding from UNICEF and other minors organizations. The NFHS-2 sample covers more than 99 percent of India's population living in all 26 states. It does not cover the union territories. NFHS-2 is a household

survey with an overall target sample size of approximately 90,000 ever-married women in the age group 15-49. An important objective of NFHS-2 is to provide state-level and national-level information on fertility, family planning, infant and child mortality, reproductive health, child health, nutrition of women and children, and the quality of health and family welfare services. Another important objective is to examine this information in a context of related socioeconomic and cultural factors [IIPS, 2000].

In the analysis we have considered 5 different questions related to 5 different demographic behaviours (table 1).

The interviewed could answer each question with yes (1) or not (0). In this way each woman is characterized by a sequence of zeros and ones. We can define two border profiles between the 32 (2^5) possible: the profile characterized by 5 zeros (00000) and the one characterized by five ones (11111). Considering the meaning of the 5 questions we can define the first profile as the traditional while the second as the innovative one.

With this analysis we are interested in studying which way is followed by each Indian state in the transition from traditional to non- traditional behaviours. Is the behavioural change due to individual decision followed, in a second step, by the individual pressure on the society? Or, does the society consider behavioural' changes as a social need so that the society pushes the behavioural changes at individual level?

We have considered age at first marriage higher than 20 years (MARR 20+) as an individual choice. In fact in India, marriage is still under family's control and in most of the cases women get married at young ages. When women enter in union in adult ages it could mean a weakening in family control over the woman as well as a first step towards a weakening in social norm. In particular these women can be considered as forerunners or "innovators" between women since their behavioural direction is contrary to the normal one. Of course the increase in women age at marriage is a consequence of women participation to the educational system. In this context we are more interested in the individual decision to postpone the marriage also if it is correlated with the contextual conditions.

The level of communication between partners in relation to Family Planning (FP-HW) has been considered as individual choice. The interaction between men and women inside a society in which the gender system is still unequal has been considered a good indicator of the evolution of the gender relation within the family. In fact the interaction

between husband and wife in relation to the reproductive choices can be considered a break with the traditional family scheme.

The use of contraceptive methods (CONTR) is the event of interest, and it could be the consequence of an individual pressure as well as a conscious social policy. This element is virtually the ring of junction between the social and the individual pressure, since it is a product of both components.

The third question related to the educational level (EDU) is an indicator of the public decision to spread knowledge between people and in particular between women. In fact the school is, the main means for spreading information. It is interesting consider the two levels of this element. In fact women presence in the school system is a social policy decision as well as the consequence of a process of family integration. We cannot forget the importance of the family since it is the main actor in taking decision on children future. Thanks to the diffusion of information families start to understand the advantages in grow up autonomous daughters as well as autonomous sons. In fact, women with high education level have a more favourable marriage market since they can point men with higher educational levels and so with better economic position.

The last factor is related to the use of health facilities (HEALTH). Since the presence of the ambulatory is indispensable for its use, we consider the public choice stronger than the individual choice in using it. In fact independently from the presence of the individual will of using the health facilities, the use is not possible without the physical presence of ambulatories.

This analysis can help us to define the process of integration, the level of interaction and causality between the five items.

4. Application of Boolean analysis: Kerala and Uttar Pradesh, two different realities.

To understand the methodology we analyse two out of the 26 states under study. Kerala and Uttar Pradesh are at extremes of the hypothetical scale of fertility transition. The state of Kerala, with a TFR of 1.96, follows a process of integration that acquires a characteristic one by one; the state of Uttar Pradesh, with a level of TFR of 3.99, which integration process pass towards 3 levels and 3 simultaneous events at the first level.

In Table 2 and 3 we have reported the absolute values of the 32 possible combinations of the 5 items for Kerala (3161 women) and Uttar Pradesh (14145 women).

Afterwards we have considered the PCU of length 2 (Table 4). It means that considering the couple *ab* we have considered the total of combination in which the interviewed gave the answer *a* and not the *b* independently from *c, d, e.* This combination is reported in the first column named $f_{ij'}$. While in the second column $f_{i'j}$ we have considered the interviewed who gave the answer *b* but not the answer *a* independently by the three others items.

Using Thenus' approach we can order the 20 combinations in relation to their frequency. The first element entering the PCU is the one with the lowest frequency. Elements enter in the PCU until the combination which complement is in the PCU is ready to enter. It means that if *ij'* is the next element to enter and its complement *i'j* is yet in the PCU, the PCU is completed.

For Kerala and Uttar Pradesh the resulting PCU are:

P_{Kerala}= {*ac', ae', ba', bc', be', da', db', dc', de', ec'*}

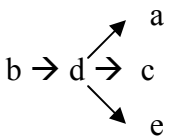
$P_{Uttar\ Pradesh}$= {*ba', bc', bd', be', da', dc', de'*}

We can plot the two implication schemes

1. Kerala

   d → b → a → e → c

2. Uttar Pradesh



Reading the graph of implications horizontally (from the right to the left), we have the sequence of the answers. The element on the left side enters in the process once that the element on its right is in the process, so on till the last element on the right side of the graph. In this way, the first element on the left is the last entering the process, while the one on the right side is the first entering the process of integration.

Reading the graph of implication vertically we can analyse the simultaneousness of the events. It means we can find which elements enter in the process at the same time without a relation of dependency.

The next step is the construction of the two graphs for the women of Kerala and for the women of Uttar Pradesh (Table 5).

In Kerala the process of integration is defined towards 6 combinations, they include the 67.3% of women. The process follows a linear path in which in each step is added one and only one characteristic. The path suggests that both individual and the social policy actors are active in the process of integration. Moreover the percentage of people belonging this model is composed by a high percentage of women characterized by the presence of more then two characteristics. Kerala represents the evidence of an integration process in the middle of the way towards the modernity for many women.

Uttar Pradesh represents the case at the opposite side of Kerala. The process requires 10 combinations to gain 77,68% of the population. Looking at the graph it is evident the presence of three elements at the first level. It means that a big part of the sample is characterized by the presence of one or two characteristics, while women with more than two characteristics have a low weight on the total. The Uttar Pradesh scheme does not define a specific path and it points out a difficulty in gaining the 5 items indicative of a modern behaviour.

Both Kerala and Uttar Pradesh point out an important characteristic in the analysis of the process. In the first part of the process is visible an higher relevance of the policy action rather than the individual one. In both states the process towards modern behaviour is determined by an improvement in the social status. The pressure of the social actor determines then a variation in the individual actions.

We would like to underline that the Boolean analysis is used to give a portrait of the most common behaviour within the community and it is not thought to pick out "special" behaviours. The process of integration that we analyse in this study it is not the path belonged by a select group of women while it is the path followed by a generic woman, to reach the other side of the scale of integration inside each specific realty.

5. The Indian heterogeneity in the process of integration

First of all, results show the high and intrinsic Indian heterogeneity, heterogeneity that does not let us select a limited group of cases. Between the two extremes there are a high number of different situations linked to the composition and to the characteristics of the population as well as to the presence of specific public policies.

In Table 6 we have reported the implication schemes for the 26 states and maps in which we have grouped territories characterized by the same graph. Reading the graphs we can define and explain the trajectory for the process towards the assumption of new behaviours.

Some of the schemes group small groups of states. It means that similar integration process can include Indian states and areas with different levels of development.

One element that we would like to emphasize is the role of the time in the process of integration. It is true that the Boolean Analysis has been applied in a specific point in time. However, as we can see from the results, inside the same integration scheme we can find different areas of the country with different level of development. Inside the diagram, the proportion of women belonging to each combination changes from state to state. While, considering the same graph towards different states we can analyse how the integration process works. Looking at the proportions of women belonging to each combination we are able to understand the level of evolution of the process. In fact, observing the same scheme we could have a first state in which the proportion of women with the highest weight on the total are characterized by the absence of the five characteristics. While in a second state, an higher proportion of women could belonging combinations characterized by the presence of two elements. Finally in a third state it could be that patterns with more than two characteristics are more common than the more traditional combinations.

Moreover, one combination could characteristic of one specific generation. It means that the traditional profile could be made basically by the oldest generation in the sample, while the innovative profile by the youngest one. This is interesting too,

because the graph could be read like the intergenerational process towards new behaviours and so we can measure the size of the gap between different generations.

Starting from the first 5 integration schemes we can notice how the process, in all these cases, starts from the presence of three elements: education, health facility use, and contraception use. It means that at the first level we find the presence of both policy components and only one component linked to the individual decision. In Andhra Pradesh, Bihar, Madhya Pradesh, Maharashtra, Orissa, and Uttar Pradesh, the interaction

with the husband on Family Planning matter is previous to postpone the marriage that is the hardest step. The presence of the woman in the educational system, together with the use of health facilities, seems to influence in a first step the level of communication with the husband, and in the last step it affects woman age at marriage. In fact these regions, except Maharashtra and Orissa (with a percentage of illiterate women around 45%), have a proportion of illiterate women between 63.8% and 76.6%. Moreover, between literate women the level gained is still too low to increase the age at marriage over 20 years. In Assam, Gujarat, and Sikkim the three components at the first level have a direct effect on the increase of the age at marriage just before improving the level of communication between the two partners. The proportion of illiterate women in this area is around the 50%. The third group include Karnataka, Delhi, and Tripura; in this case the process belonged cross two levels. In fact there is not a logical sequence between age at marriage and communication between partners. Rajasthan (fourth scheme) states with a high level of illiterate women and in which the demographic transition is still at the beginning. In this case the integration process pick out the logical link between education and age at marriage. In Rajasthan 25% of women are still out of the transitional process (similar proportions have been found in Uttar Pradesh and Bihar 33%). It means that this proportion of population do not present any of the characteristics we are considering in the analysis.

Another model is represented by states characterized by the use of health facilities and use of contraception as first step in the process. This group is belonged by Haryana, Punjab and Jammu. In these three states family planning policies are fundamental for the process of integration more than the educational system that enter in the graph at the second level. We would like to point out the Haryana case that shows a special link

between education, use of contraception, and use of health facilities. These components help the communication between partners independently from the use of contraception. The graph of Punjab points out the strict link between the level of literacy and use of health facilities. In Jammu women follow a process in which the first element of transition is the high level of care for themselves and for their fertility behaviour. The education and the increasing in the age at marriage enter at the second level. These characteristics play an important role in woman interaction with the husband. Goa, Tamil Nadu, and Meghalaya start the process with a strong public action (improving the educational system and the health system). Between the three states there is a main difference: while in Meghalaya the use of contraception is linked with education and health services use, in Goa and Tamil Nadu the link between education and use of contraception is not so strong compared with the link between the use of contraception and the use of health services. The interaction between partners enter at the last level: in Meghalaya it is pushed by the use of contraception, while in the other two states the adulthood at marriage affects the communication between partners.

Himachal Pradesh and West Bengal have only one element at the first level. In the first case it is characterized by the heath facilities use, while the second one is characterized by the use of contraception. The three levels structure with one element on the first level, two on the second, and two on the third one, show a gradual undo of the process. Nagaland, Mizoram, and Manipur (in this last case the model fit at 57% for this reasons we are not able to comment the result since the level of fitting is too low) are in the last group. In Nagaland and Mizoram the integration process starts from the spread of education between women, while the others characteristics enter at the second level. It means that even if the level of women literacy is 90% in Mizoram, and around 60% Nagaland the use of health services and contraception is still low, and it is evident from the high levels of TFR in this two states. In Nagaland the increase in the age at marriage does not affect the level of communication between partners, like in the Mizoram case, while it depends on the pressure of women's autonomy (education → knowledge and use of Family Planning). The Kerala case shows a 5 levels integration process: education, health facilities use, contraception use, increase in age at marriage, and communication with the husband. When most of the people are integrated the process assumes this linear path. With the Kerala path we are able to identify the process that

brings people to assume non-tradition behaviours. The educational system plays an important role in the use and acceptance of the health facilities furnished by the government. It means that educated women are more favourable in using official health aids for own care and family care. The process of knowledge affects the use of contraception, followed by the increasing in age at marriage, and by the level of communication between partners. The Kerala path is undone following the logic behind our variables. The two elements exogenous to the individual decision, education and health system, represent the first two impulses to the modernization process, while the two elements related to the individual choice enter at the end of the process. The element of junction of the chain is the use of contraception, that connect what the process of diffusion gives to people, knowledge and technologies, and the individual choices of using them.

6. Conclusion

Results show that the first step in the process of integration is done by exogenous actions followed in a second step by individual actions. The process of integration can be considered like a skein, more the skein is undo more the process is advanced. The presence of higher number of levels, and lower number of contemporary events, shows a clearer sequence. The same is not true when the number of levels is lower and than is higher the contemporaneousness. From the analysis of the whole groups of graphs it is evident how the woman age at marriage is positively correlated to the level of literacy. When there is not a relation of implication between the two elements, education and age at marriage are on the same level, and this is true all over India.

Results show how in case of absence of a specific government actions the marriage market is still traditional. In India the typology of marriage is favourable to high levels of fertility. The strong capability of the educational system to change norms and help, support, and stimulate innovation makes the spread of education one of the strongest instruments in the process of innovation. The educational system does not affect the use of health facilities, since in most of the cases these two items are at the same level or in the case in which they are on different levels the education is not need for the use of health facilities.

The methodology confirms the use of contraceptive methods as the ring of junction between the individual sphere and the social one. Using the diffusion approach , the model shows how the use of contraception depends from the education, in fact it increases the individual capability of gain information as well as the knowledge about what, where, and how obtain contraception. Henry [1961] wrote that a woman can use contraceptive methods if she knows about the existence of contraception as well as she knows about places in which she can obtain and have information about contraception. The communication between partners in relation to Family Planning decision represents the last obstacle to gain the end of the integration process. Into a society, like the Indian one, the communication with partner on Family Planning topics means a first step towards the social acceptance of fertility control. This component enters in the last step of the process for all the states, independently from the TFR level in each state. The fact that the social obstacle is spread all around the country, also in area with TFR at replacement levels or with a strong use of contraception, let us thinking that the social acceptance is the last obstacle and the hardest to be avoided.

The scheme resulting from the analysis shows the complexity of the process at regional level, the main role that social policies played in starting the process of integration and in changing individual behaviours. The second hypothesis of the process of integration (individual over society) is not visible using this method, since the Boolean analysis shows the most common behaviour, and it avoids the residual ones, like the ones adopted by innovators.

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Table 1 – Items used for the analysis of the integration process

LABEL	*QUESTIONS*	*LOGICAL VALUE*	
		YES	*NO*
a. MARR 20+	Is the age at marriage higher then 20 years?	1	0
b. FP-HW	Have you discussed the practice of Family Planning with your husband?	1	0
c. CONTR	Have you ever used a contraceptive method?	1	0
d. EDU	Do you have any educational level?	1	0
e. HEALTH	Have you visited a health facility, for any reasons, in the last 12 months?	1	0

Table 2 – Patterns of answer for Kerala

PATTERN	**FREQUENCY**		**PATTERN**	**FREQUENCY**	
00000		11	**10000**	*a*	28
01000	*b*	6	**11000**	*ab*	8
00100	*c*	75	**10100**	*ac*	156
00010	*d*	0	**10010**	*ad*	2
00001	*e*	40	**10001**	*ae*	93
01100	*bc*	53	**11100**	*abc*	117
01010	*bd*	0	**11010**	*abd*	0
01001	*be*	14	**11001**	*abe*	20
01110	*bcd*	7	**11110**	*abcd*	21
01011	*bde*	0	**11011**	*abde*	1
01101	bce	181	**11101**	*abce*	783
01111	*bcde*	51	**11111**	*abcde*	194
00110	*cd*	3	**10110**	*acd*	11
00101	ce	289	**10101**	*ace*	767
00111	*cde*	62	**10111**	*acde*	160
00011	*de*	5	**10011**	*ade*	3

Table 3 – Patterns of answer for Uttar Pradesh

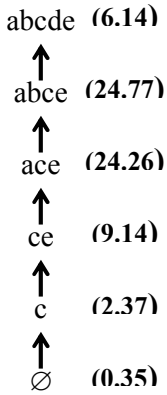
PATTERN	FREQUENCY		PATTERN	FREQUENCY	
00000		3360	**10000**	a	1225
01000	*b*	153	**11000**	*ab*	44
00100	c	900	**10100**	ac	582
00010	*d*	318	**10010**	*ad*	260
00001	e	2157	**10001**	ae	956
01100	*bc*	207	**11100**	*abc*	162
01010	*bd*	22	**11010**	*abd*	18
01001	*be*	112	**11001**	*abe*	44
01110	*bcd*	14	**11110**	*abcd*	63
01011	*bde*	27	**11011**	*abde*	24
01101	*bce*	156	**11101**	*abce*	196
01111	*bcde*	53	**11111**	*abcde*	117
00110	*cd*	107	**10110**	*acd*	181
00101	ce	770	**10101**	ace	597
00111	*cde*	204	**10111**	*acde*	351
00011	*de*	369	**10011**	*ade*	396

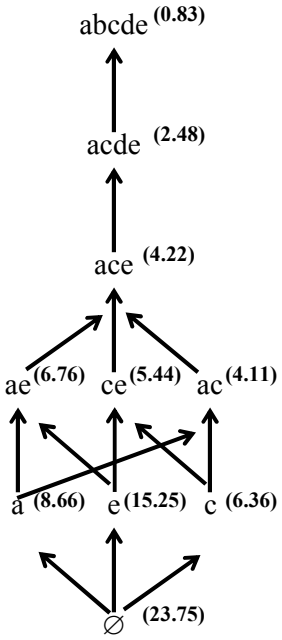
Table 4 – Subpatterns of length 2, for Kerala and Uttar Pradesh

Kerala			*Uttar Pradesh*		
	$f_{ij'}$	$f_{i'j}$		$f_{ij'}$	$f_{i'j}$
AB	1220	312	**AB**	4548	744
AC	155	721	**AC**	2967	2411
AD	1972	128	**AD**	3806	1114
AE	343	642	**AE**	2535	3848
BC	49	1523	**BC**	444	3692
BD	1182	246	**BD**	1074	2186
BE	212	1419	**BE**	683	5800
CD	2421	11	**CD**	3570	1434
CE	443	176	**CE**	2216	4085
DE	44	2187	**DE**	983	4988

Table 5 – Graphic representation, Kerala and Uttar Pradesh, proportion of women belonging each combination in brackets

KERALA	UTTAR PRADESH





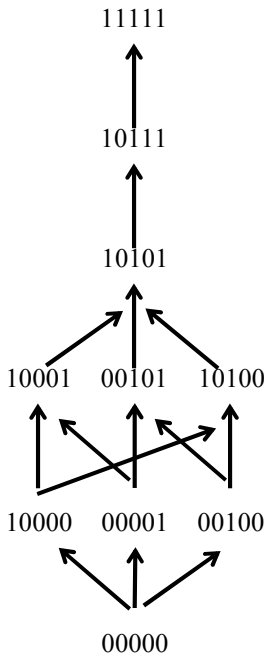
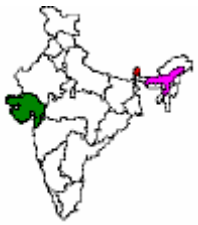
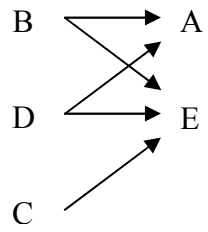
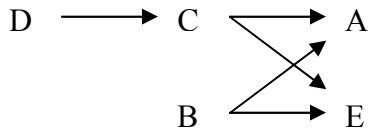
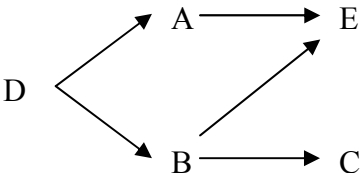
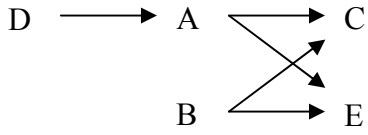
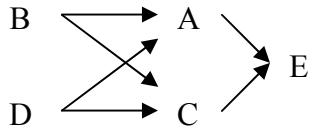
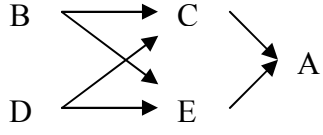
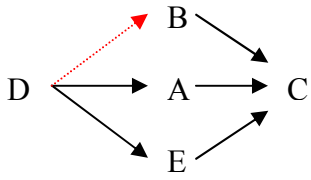
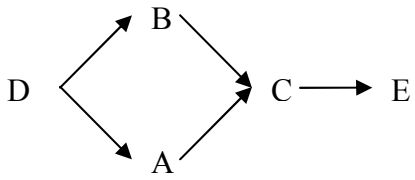


Table 6 – Implication schemes

1	B → D → A, C, E	• Andhra Pradesh (86.8%) • Bihar (80.19%) • Madhya Pradesh (79.38%) • Maharashtra (79.84%) • Orissa (70.22%) • Uttar Pradesh (77.87%) 
2	D → B → A, C, E	• Assam (66.33%) • Gujarat (77.81%) • Sikkim (66.66%) 
3	D → A, C, E; B → C, E	• Karnataka (81.45%) • New Delhi (72.88%) • Tripura (74.18%) 
4	B → C, A, E; D → A, E	• Rajasthan (79.43%) 
5	D → A, E; B → C	• Arunachal Pradesh (69.47%) 
6	B → C → A, E; B → D → E	• Haryana (67.89%) 

7 	• Punjab (66.82%) 
8 	• Jammu (65%) 
9 	• Goa (66.73%) • Tamil Nadu (67.3%) 
10 	• Meghalaya (66.03%) 
11 	• Himachal Pradesh (68.12%) 
12 	• West Bengal (69.33%) 

13 	• Nagaland (60.33%) • Mizoram (77.07%) 
14 	• Manipur (56.97%) 
15 	• Kerala (67.03%)