



RESEARCH Newsletter

of the Research & Publications Committee, IIMA

March 2008

Chairperson
Goutam Dutta

Research & Publications Committee

Samar K. Datta
Tejas Desai
Rekha Jain
Jerome Joseph
Abhishek Mishra
T.T. Ram Mohan
Ernesto Noronha
Arvind Sahay

Newsletter Coordinator
Asha Kaul

In-charge
Research & Publications Office
E.V. Narayanan

Copyediting
Nisha Ravindran

Layout & Design
Pratima Desai

For further information,
contact us at

Research & Publications Committee
Indian Institute of Management
Ahmedabad 380 015

*
Phone

91-79-6632 4821

*
Fax

91-79-2630 6896

*
Website

www.iimahd.ernet.in/publications

*
Email

respub@iimahd.ernet.in

Chairman's Message

Dear Readers,

We are glad to announce the second edition of the *Research Newsletter* which was restarted in September 2007. Our emphasis will continue to be on highlighting papers that have been accepted for publication in peer reviewed journals, both, national and international. This issue carries interviews with faculty members whose papers were recently published in such journals. They are Prof. Arnab Laha, Prof. Ajeet Mathur, Prof. Chetan Soman, Prof. Neharika Vohra (with Abhishek Goel), Prof. Premilla D'Cruz and Prof. Ernesto Noronha. Through these interviews, the professors present the highlights of their paper, describing how it defies traditional thinking to expand into new horizons. Given the competitive world that we live in, wherein we and our research are always under close scrutiny by international ranking agencies, it is vital that any intellectual development be brought to light.

While we are already known for our ability to publish good cases, winning international awards, if possible, would only add on to the shine. In my opinion, the best possible way for one to promote research is to get his work published in a reputed journal and win an international award for it, thereby setting an example for others.

I have been fortunate to interact with Prof. John Little at MIT and Prof. Dipak Jain at Kellogg. What I found most inspiring in these meetings, was the emphasis laid on time and energy spent to develop tomorrow's research leaders. Thus, I believe it is important that we develop a culture that encourages and inspires youngsters to become research leaders in their field.

I look forward to attaining suggestions and inputs for developing such a culture, from faculty, students, and research and academic staff. Alumni also are invited to be a part of this effort.

I would like to thank Prof. Asha Kaul for doing a wonderful job in bringing out this issue. Finally, I would also like to thank Ms. Pratima Desai and her team for their support.

Goutam Dutta
Chairperson
Research & Publications Committee

Portfolio Allocation: Beyond Mean Variance

Professor Arnab Laha



Q Arnab, you have moved away, or if I may say, dared to think beyond Markowitz, a Nobel Prize laureate. Where and how does your work differ from that of Markowitz?

Markowitz's mean-variance framework assumes that returns on the stocks constituting a portfolio have finite mean and variance. It has been known for quite some time that some stocks do not obey this requirement. In such situations one cannot obtain the optimal portfolio using Markowitz's approach. Our paper discusses portfolio allocation when some stocks (or assets) in the portfolio do not have finite expectation and variance.

Q What are the benefits of your model vis-a-vis Markowitz's model?

Our model is more general than that of Markowitz and can be applied to obtain optimal allocations for any portfolio and makes no demand that the returns on the stocks in the portfolio have finite expectation and variance.

Q What is the new criterion developed by you to take care of stocks which show "heavy-tailed distribution"? Arnab, as I am using a technical term from your paper, can you please explain in simple terms the meaning of these terms.

The term "heavy-tailed distributions" refers to distributions for which we have higher chances of obtaining

extreme values (high or low) than that would be expected for a normal distribution. There are a large number of distributions which are heavy-tailed, of which, some do not even have finite expectation and variance. We develop new criteria for portfolio optimization which are applicable for any type of return distribution.

Q Can an investor use this model? What are the benefits?

Yes, investors can use this model to their benefit. The results in this paper show that if the returns of one or more of the stocks in a portfolio are heavy-tailed, then the portfolio allocation done by our method performs much better than the portfolio allocation obtained by a naïve application of the mean-variance method.

Q Can your model account for the recent crash in the share market? If yes, why and if not, why not?

No, ours is not a market model and hence it is not expected that it will be able to predict market crashes. However, the results in the paper show that an investor may be better protected if they do portfolio allocation using our method than the mean-variance method. 📄

Laha, A K; Bhowmick, D and Subramaniam, B (2007). "Portfolio Allocation with Heavy-Tailed Returns," *Applied Financial Economics Letters*, 3(4), 237-42.

“A Recipe for Managing Product Variety”

Professor Chetan Soman

Q Chetan, your paper makes interesting reading. In the paper you have tested the conceptual production and inventory control planning for a make-to-order and make-to-stock production mode by applying it to a company which manufactures 230 products on a single line with a limited capacity. Do you think the framework will be applicable to other food processing companies which produce more or less products with a variation in capacity?

Traditionally, food processing companies are “make-to-stock” companies and have batch production systems geared for low variety and larger volumes (produced in large batches to keep production costs low). However, consumers’ wishes, dominance of retail chains and their stress on offering more choices for customers, faster and reliable logistical performance, etc. have forced these companies to expand their product portfolio, produce shorter batches, and offer shorter delivery lead-times. This has to be accomplished in view of the increased demand uncertainty (in the form of timing, quantity, and products).

If volumes justify, the companies can think of the expansion of the facilities or say, a separate line for high volume products. However, it is unlikely to have such dedicated facilities for all the products. Given the capital intensiveness of the operations, capacity addition/reduction cannot be done at will. Therefore, we end up in a situation where we have a large number of products to be produced (in small batches) on a common facility! Given the demand uncertainty and perishable nature of the products, it may not be prudent to produce all these products on a make-to-stock basis and hence they can be produced on a “make-to-order” basis. How do I make this classification? How do I treat these products on the shop-floor? These are some of the questions addressed in this paper.

This paper is primarily relevant for all the food processing industries that are facing proliferation of products/SKUs. In brief, we provide a recipe for “managing the product variety”!



Q Please elaborate on how a short term batch scheduling problem can be suitably addressed.

As I mentioned just now, the food companies will have to operate in a combined make-to-stock and make-to-order production mode. Traditionally, these two modes are considered incompatible with each other. In make-to-stock, the performance measures are product related and the focus is on demand forecasting, inventory management, achieving cost efficiency; whereas in make-to-order the performance measures are order related and the focus is on shorter and reliable delivery lead times.

The short term batch scheduling problem is now more difficult because of the presence of production orders for the make-to-stock and make-to-order products. We need to worry about the changeover times (unproductive time when we move from production of one product to another) as well. These changeovers are time consuming (stringent FDA requirements) and are sometimes production sequence dependent. The problem is mathematically intractable and hence we have suggested a heuristic for this problem. The main idea is to stick to a preferred sequence of products (based on the changeover times) as far as possible to achieve the cost efficiency. If this sequence meets the due dates for the make-to-order products, then we have an optimal solution; otherwise we have to remove the infeasibility by changing the sequence of operations and/or batch splitting. While we do this, we

will try to keep the costs as low as possible. In most of the cases, since we are not carrying any inventory for make-to-order products, giving them priority in the production sequence would help meet the due dates.

Q Chetan, you have worked on this paper with international scholars. Do you think your findings will be universally applicable?

We haven't mentioned the product in the case presented in the paper. It was a case of an industrial food manufacturer, based in the Netherlands, producing breadcrumbs. For most of us here in India, who have seen breadcrumbs only in tomato soup, 230 variants of breadcrumbs is simply unthinkable!

However, with increasing household incomes, our eating habits are likely to change. We have already started witnessing people buying *atta* instead of wheat; new retail formats are full of ready-to-cook/ ready-to-eat food items. This will only grow. When the market matures, margins shrink; the companies will start offering more and more

products rather than plain vanilla. The findings in the paper will be more meaningful for the Indian companies only then!

Q Can we extend the findings so that they find a suitable application across sectors?

As I said just now, my study probably will not find any immediate relevance in the Indian food sector. However, I don't see any reason why it can't be applied to other sectors. All the industries that are dealing with a large product variety will find something interesting in this paper. I would say that the process industries will definitely observe more similarities with their situation. 🌐

Soman, C A; van Donk, D K and Gaalman, G J C (2007). "Capacitated Planning and Scheduling for Combined Make-to-Order and Make-to-Stock Production in the Food Industry: An Illustrative Study," *International Journal of Production Economics*, 108, 191-99.





The BPO Life: Myths and Reality

Professors Premilla D’Cruz and Ernesto Noronha

Q Can you please elaborate on the strategies used by participants in the study to maintain a balance between positive experiences/well being and negative experiences/stress.

Premilla D’Cruz (PD): Most of the time the strategies used were emotion-focused coping strategies where participants would look at their work situation in a positive way and down-play the negative aspects of the situation. In terms of problem-focused coping, they would look at what the long-term prospects were, both in the BPO sector and outside, and then they would decide whether or not to remain in the industry and plan a career within it or move outside.

Ernesto Noronha (EN): The main strategy used by the participants to maintain a balance between positive experiences/well being and negative experiences/stress was related to acquiring an identity of being ‘professionals’.

Q While agreeably, employees at call centres face major stress, why did you select this sector? Probably similar levels of stress would be faced by employees in almost all other sectors.

PD: The reason for selecting this sector was that it is a newly emerging area within the Indian industry and not much is known about it in any systematic academic way. Though similar levels of stress may be present in other sectors, each sector has its own context, demands, returns and workforce dynamics, and these factors also make the sector interesting to study.

EN: Similar levels of stress may be faced in other sectors but not much is known about call centres in India. Besides, when we began to research call centres in 2003, they presented a new model of providing services.

Q As both of you are from the OB Area, many of your observations are interestingly linked to the human nature and control of self. We are sure that our readers would be interested in knowing how the BPO sector has helped the employees gain “a sense of mastery over their lives”.

PD: Essentially, here we are observing the fact that in this sector, the economic gains are such that people can earn, save and plan their lives much better than with the returns being gained from other sectors, and that is what gives them a sense of mastery over their lives, in spite of the work related stress that they cope with.

EN: The mastery over their lives would involve on one hand, looking at the earnings and economic gains that they have achieved by working in the sector, and on the other, the skills and discretion involved in performing their jobs. With regard to the former, they have certainly gained while in terms of the latter, the jobs they perform are monotonous and boring, besides being stressful.

Q What are some of the myths related to the BPO sector?

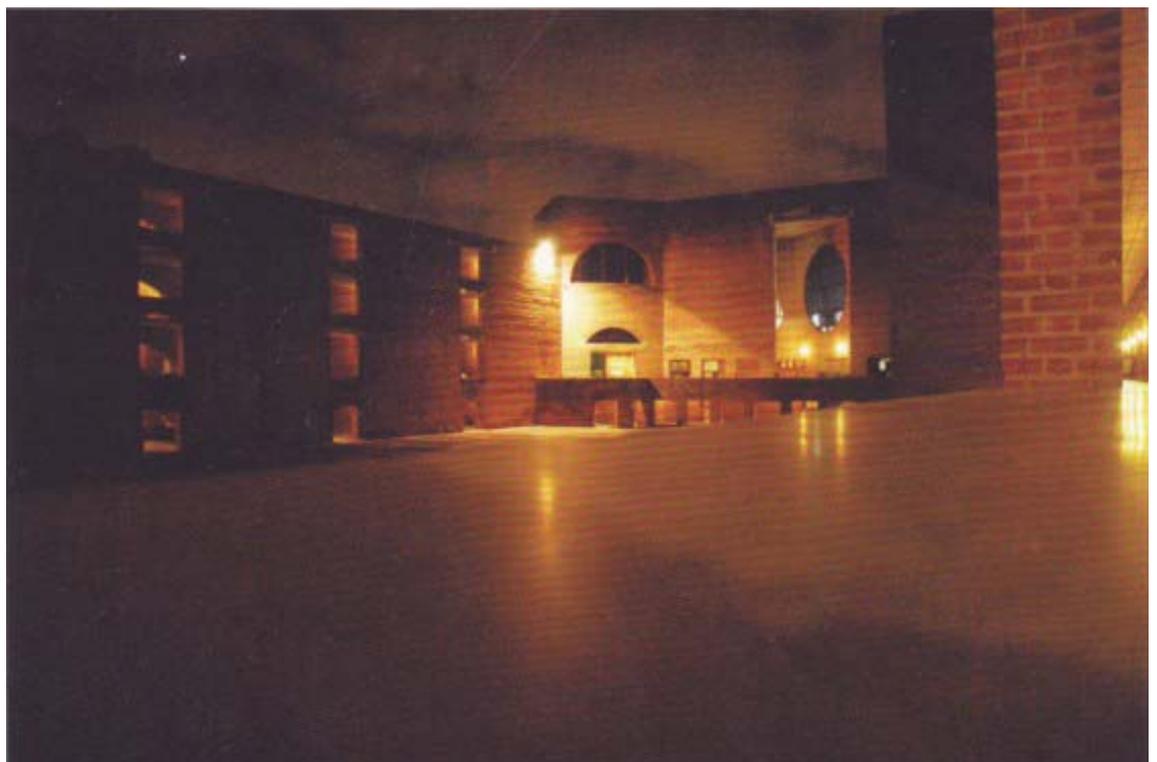
EN: One of the myths in the industry is related to achieving growth. Every stakeholder talks about growth which will be achieved if the performance metrics are met. This doesn’t seem to be the case, nor is it possible to achieve growth for everybody. However, very often managers sell this story to gullible novices knowing fully well that they (managers) can’t deliver.

Q What do you think is the real contribution of your paper?

PD: The real contribution of this paper is that it has been able to show a very balanced, realistic insight into the lives of BPO employees. The popular view, propagated by the limited academic research available so far in India, has been one of high levels of stress and of negative images of this sector – these have been very reductionist and simplistic in their perspectives. Our research has been

able to highlight the concomitance of both positive and negative experiences, and subsequent to our work, we have found two other studies, one situated in India and one in the West, which have been able to bring out similar complexity. [↗](#)

Noronha, E and D'Cruz, P (2007). "Reconciling Dichotomous Demands: Telemarketing Agents in Bangalore and Mumbai, India," *The Qualitative Report*, 2(2), 255-80.



Entrepreneurship Across Cultures

Professor Neharika Vohra and Abhishek Goel



Q Can you please share your experience of working with researchers and scholars across cultures? What, according to you, are the strengths of the paper, which have emerged, as a result of working with faculty across disciplines?

Neharika Vohra (NV): I have been part of several cross-cultural research projects. In fact this one was easy partly because we had the opportunity to work face to face with each other (Liyan, Abhishek, and me) before we finalized on the broad design. Thus, neither the design nor the research question was thrust upon the other culture. However, no cross-cultural project is bereft of interesting moments created by gaps in communication, and ours was not unique on that count.

Abhishek Goel (AG): Initially, there were some difficulties in understanding each other. As we were aware of pitfalls of cross-cultural research, we were patient and created an open and responsive environment conducive to sharing and understanding. As the work progressed and ideas started taking shape, the work became much easier. The clarity came from clear understanding of the problem and the final goal.

Q As the paper deals with both policies and behaviour, do you think it would have been a good idea to work in close coordination with faculty in the BP area? Please elaborate.

NV: The paper, like any other entrepreneurship study, draws upon ideas from several other disciplines. I think having a psychologist, a sociologist, and an economist would have been wonderful, especially if these collaborators were also from China rather than only India. It would have really deepened our analysis and understanding of the findings.

AG: The paper deals with attitudes. By definition, they are different from behaviors. If there is a clear understanding with the team members about

the issue at hand, it would definitely be more rewarding to have a diverse set of thinkers.

Q Which policy, according to you, will be able to address all issues related to entrepreneurial activity in all regions?

NV: Has there ever been a policy that addresses all issues? When I think deeply, there is not a single policy that actually addresses issues about attitudes. Attitudes are simply not a matter of policy! They are much more a matter of slow and evolving societal culture.

AG: It is difficult for us to comment on this aspect. We highlighted the regional differences arising out of dissimilar economic activities and the history of the region. The family background was found to have some bearing on the attitude of the youth. So probably, a policy that addresses issues pertaining to a region could be more useful. However, the implementation and design of such a policy will not be easy.

Q Can the findings of the study be extrapolated to understand the societal cultures in other countries, except India and China?

NV: If you mean the aspect of societal culture which deals with value for different professions and means of livelihood, I think the answer is yes. Countries such as Turkey, Vietnam, Philippines have been sometimes called countries of “shopkeepers”. It is partly because many of these cultures do their own bit for the upkeep of the family. Also, as agriculture was unable to take care of the needs of the growing family, many of them stayed with the family but did small time trading to keep the fires warm. The US has been understood as the land of opportunities where anyone with the right attitude can make it big. Canada, on the other hand is much more conservative with respect to entrepreneurship. However, these do not explain many other parts of the culture. Culture is too deep and embedded for any one study to be able to explain it.

AG: Yes, for sure.

Q In your conclusion, you state that one of the findings, both in India and China, is the preference of a well paying job over a riskier profession like entrepreneurship. However, if we were to understand the finding in relation to the current trend at the Institute, we will find just the opposite. I would like your views on the same.

NV: I am not sure if what the media makes of the two-three per cent of students who decide to start a business is at all representative of most of the students. This study shows the influence of long standing influences such as family, regional economic factors, etc. on the desire to be an entrepreneur; and even those who are favourable towards entrepreneur-

ship, rank it only second or third in their preference. I also do not think that the number of students opting for entrepreneurship is higher than in the past (but I do not have hard data for this opinion).

AG: We do not agree with your observation at the Institute. Also, if you look at the details of the sample we have taken, it is more representative of the larger populace in the two countries. It is not about top ranked graduates in B-schools at all.

Q Neharika and Abhishek, your statement that the “youth perceived entrepreneurship to be a respected, rewarding and desirable profession for contributing to the country’s development” is altruistic. Would your finding change if we added the dimension of “beneficial to the self” or would it remain the same?

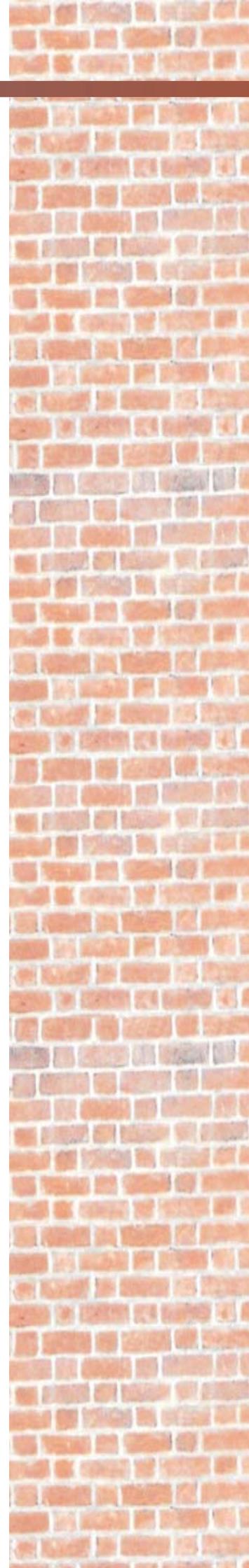
NV: I think there is a misunderstanding about what we meant. The items on “entrepreneurship is good for the

country” and “we should become entrepreneurs to help the country” were designed to get at attitudes in an indirect manner and also measure if the attitude was stable or not.

AG: We do not find it altruistic. The statement you have picked up is an aggregation of four findings of the study. Moreover, it has to be seen in the context of broader research questions and our findings.

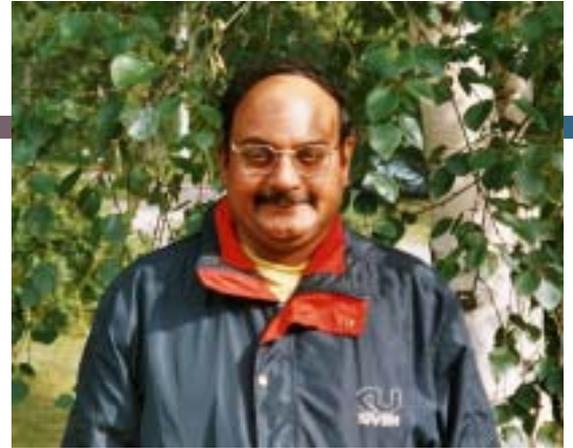
Once we change the dimension, we would need to measure it again to understand if the finding changes. As of now, it may or may not change. [👉](#)

Goel, A; Vohra, N; Zhang, L and Arora, B (2007). “Attitudes of the Youth towards Entrepreneurs and Entrepreneurship: A Cross-Cultural Comparison of India and China,” *Journal of Asia Entrepreneurship and Sustainability*, 3(1).



Dare to Think the Unthought Unknown

Professor Ajeet Mathur



Q Dr Mathur, your paper is extremely interesting and thought provoking. In your paper, “whose future” are you alluding to, and why?

An intriguing problem in “Futures studies” concerns coping with hopelessness and thinking beyond much discussed hopes, wishes and solutions. Despair and its associated pains, sadnesses, anxieties and guilts are usually projected somewhere else to other people and other locations in order to sustain illusions that “our future” is somehow going to be safe and different from future trajectories of the powerless, weak or uninformed elsewhere. Consider that after the 2007 Nobel Peace Prize, there has been considerable awareness about impending environmental cataclysms from climate change, but there still is very little civic response. People either feel hopeless, or like to believe that someone somewhere is solving environmental problems through institutions of national governance with powerful technologies.

In my understanding, there would always be some future, just as there remains in distant time and space, some signature of the birth of the universe as we know it. Yet, if that is not ‘our common future’, as the Brundtland report puts it, participation in that future can produce divergent experiences depending on a host of factors. Outcomes from disasters can be more severe when safe releases are hindered due to institutional inadequacies. Potential solutions can get priced out of markets or remain beyond social innovation capacities to design institutions to absorb shocks. Wherever we are located, we need to own up to all the risks in that habitat, do the doable and cope with the inescapable.

Q Is there any difference in the illusions of different futures which are raised/ developed for/by different groups?

Yes. All visions and illusions are made up of fantasies, which are self-level coping responses, and every group and every member of a group, nurtures what they like to believe, in infinite ways. For example, I believe it is better to be caught in a flood in Mumbai rather than in New Orleans. In Mumbai, twelve million people were affected by 37 inches of rain, time taken for relief supplies was 12

hours, number of people evacuated was 10,000 and number of deaths, 35, but there was no street violence or looting. In New Orleans, half a million people were affected by 18 inches of rain, it took 48 hours for the army to reach relief supplies, there was widespread looting and street violence, with 105 deaths and the entire city had to be evacuated. So there is justification for believing that institutions we build and rely on are stuff fantasies are made from, and this produces some differences in illusions we have about futures.

While capital has become highly mobile across national borders, labour is not freely moveable. With the same skills and education level, an Indian in Mumbai, and a Swede in Stockholm would earn different factor compensations for the same work and their families would breathe oxygen to different degrees of atmospheric purity.

Q Bonding in society could be due to a host of factors. When you refer to the “cement of society” is it for small groups/large groups? What are the ingredients used to compose “cement”?

Studies in group dynamics on inclusion and exclusion of persons reveal that the cement of society is essentially behavioural. Small groups are more cohesive than larger groups of thirteen and more. Seven is the smallest size of a sustainable group where members can feel and function with group identity becoming more influential than inter-personal relations. Also, studies have found that introducing the 13th member in a group always splits the group. Similarly, the smallest size of a sustainable autonomous self-governing community of habitat with safe distance for breeding inter-generational continuities from within is 5040. Bonding depends on how social capital is seeded and harvested in groups and communities of habitat, communities of expertise, communities of practice, communities of common interests etc.

Q Please elaborate on the following clause in your paper: “prism of Bionian basic assumption groups”?

There are two main approaches to studying groups, one limits itself to interpersonal transparency whereas the other also tracks transference phenomena, which I call

the prism of Bionian assumption groups. Let me explain. Wilfred Bion was the first to observe that groups exhibit behaviour in ways different from individuals and have a psychodynamic life of their own. When groups cannot adequately cope with their experience of phenomena, they defend themselves from collective anxieties by disengaging from tasks and exhibit three kinds of behaviour. The first is dependency, (Bion called it Basic Assumption baD) when groups seek comfort from designated authorities, who they expect will guide and nurture them and when such hopes are dashed, it produces anger towards the authority or leader. This is what makes incumbency a liability in politics like it does in all CEO roles. The same John Major or Russi Modi or Jack Welch is perceived differently after some time!

In what Bion called baF, or fight-flight states, groups experience competitive dynamics of genetically coded envy of the human species acted out in inter-group rivalries. Bion also noticed what he termed baP (p for pairing) where the group places reliance on elites ('the great and the good') and emotional sub-groups thrive as in aristocracies. The same group can experience different states at different times and by using the Bionian notion as a prism, amazing insights into group behaviour can be obtained. I

may mention that since Bion's time, in addition to these three, four more basic assumption states have been discovered. Turquet postulated baO in which groups express messianic hope about unity or oneness, and when this is impossible, transpose into baM (me-ness) in which members are unable to pursue any collectively valued purposes.

Q What is the dilemma faced by the Gandhian Eskimo?

If all problems were solvable, hopelessness need never be explored and can always be denied and hushed like the husky dogs eskimos kill when they can no longer pull the sledge. And if the situation is hopeless, the Ravetzian nightmare could eternally haunt us, and may even paralyze us into inaction and apathy. Gandhiji found his way out of such a dilemma based on his personal authority. The dilemma of the Gandhian Eskimo is the dilemma of all those who feel hushed or helpless.

Mathur, A N (2007). "Whose Future? Dilemma of the Gandhian Eskimo," *Futures*, 39, 895-901.

